

A Closer Look at Adult Female Health Care Maintenance Visits

Elisabeth L. Backer, MD; Patrice Gregory, PhD;
Carlos Roberto Jaén, MD, PhD; Benjamin F. Crabtree, PhD

Background/Objectives: *The health care maintenance (HCM) visit is a primary vehicle for delivering preventive services in primary care, but how these visits are actually utilized is poorly understood. This paper describes the content and process of HCM visits for adult women in family medicine.* **Methods:** *Data were collected as part of a multi-method comparative case study of 57 clinicians from 18 purposefully selected Midwestern urban, suburban, and rural practices. Descriptive observational field notes, medical records reviews, and depth interviews were used to identify the overall content, process, and style of these visits and to examine the management of additional concerns.* **Results:** *The preventive services addressed most frequently included clinical breast exams, pelvic exams, and mammography. Cholesterol screening, flexible sigmoidoscopy, alcohol use, and vaccinations were infrequently addressed. Health habit counseling regarding obesity was inconsistent. While some encounters followed a checklist, the majority of visits were structured but open to patients' questions/concerns. An "open-ended" format was seldom utilized. Additional patient concerns were raised and addressed during the majority of HCM visits.* **Conclusions:** *HCM visits provide unique opportunities to deliver preventive care. Physicians may need to expand the range of services offered, involve other members of the primary care team, and address competing demands to ensure more-comprehensive preventive care delivery.*

(Fam Med 2006;38(5):355-60.)

Nearly 50% of deaths in the United States are related to preventable causes.¹ The Healthy People 2010 report² challenges primary care clinicians to improve the delivery of preventive services to their patients. Recommended services include a range of primary, secondary, and tertiary prevention, such as immunizations and healthy lifestyle counseling, periodic health screenings and early disease identification, and the prevention of complications from chronic diseases. These have all been shown to decrease morbidity and mortality when provided to eligible patients in clinical settings.³⁻⁵

Most practicing physicians embrace the concept of prevention,^{6,7} with family physicians having an extended history of incorporating prevention as a core

component of clinical practice.⁸⁻¹⁴ The concept of a dedicated health care maintenance (HCM) visit to ensure the delivery of preventive services emerged in 1975 from a critique by family physician Paul Frame regarding the shortcomings of the annual physical exam.¹¹ He recommended targeting periodic screening according to age and gender criteria.^{4,5} HCM visits have been shown to be the strongest predictor of patients being up to date on preventive service delivery.^{9,15,16}

Women's health issues and HCM visits have gained increasing attention since the early 1990s. Recommendations for services that should be included in these HCM visits have been defined by the US Preventive Services Task Force (USPSTF) Report^{4,5} and national organizations like the American Academy of Family Physicians¹⁷ and the American Cancer Society.¹⁸

Little has been documented in the scholarly literature on what actually occurs during HCM visits. What has become apparent, however, is that overall prevention performance rates fall far below the levels recommended by national groups.^{16,19-23} This shortfall has not changed appreciably between 1993 and 1998²⁴ in

From the Department of Family Medicine, University of Nebraska (Dr Backer); Department of Family Medicine, University of Medicine and Dentistry of New Jersey, Somerset (Drs Gregory and Crabtree); and Department of Family and Community Medicine, University of Texas Health Sciences Center, San Antonio (Dr Jaén).

spite of numerous interventions targeted at enhancing prevention.^{15,19-21,24-27}

Preventive services are best provided as a combination of “windows of opportunity” during illness visits and focused attention during HCM visits. Since competing demands experienced during illness visits are likely to limit the emphasis placed on prevention, comprehensive HCM visits play a crucial role.²⁸ We describe in this study the content and process of adult female HCM visits in a community-based sample of family medicine offices. We chose to focus on female visits, because women are the most frequent users of health care.

Methods

Overview

The data for this analysis were collected as part of the “Prevention and Competing Demands in Primary Care Practice” study, an in-depth observational study that examined the organizational and clinical structures and process of community-based family practices. Our Institutional Review Board approved the protocol and forms as IRB 103-05-FB.

Each of the 18 purposefully selected practices was studied using a multi-method comparative case study design. Field researchers directly observed and dictated descriptions of approximately 30 patient encounters with each of the more than 50 clinicians and audited medical records of each of these patients. These descriptive field notes documented day-to-day practice operations and details of each clinical encounter, including which services were offered and which services a patient refused. Individual depth interviews with clinicians, practice staff, and members of the community provided different perspectives on the practice.

Data were collected between 1996 and 1999. Details of the sampling and data collection are available elsewhere²⁹ and on the *Journal of Family Practice* Web page (www.jfponline.com).

Data Sources

Encounters were selected for female patients ages 19 and older ($n=95$), whose primary or secondary reason for the visit was health care maintenance. Eligibility for different services was determined based on age, tobacco history, and medical history (including history of hysterectomy). Each encounter was examined to evaluate what actually occurred during these encounters. Chart audit data were used to ascertain whether the patient was up to date with respect to the delivery of preventive services. Chart audit data collected included a review of visits during the previous 2 years, dates of the previous three Pap smears, and all documented mammograms. Six percent of practices used an electronic medical record.

The 1996 USPSTF recommendations were used as our standard; we assessed patient eligibility for given

preventive services by taking conflicting recommendations into account. For example, patients were separated into three age groups to detect any differences in physician compliance with breast cancer screening among the age groups that had varying eligibility criteria at the time of the study. That is, patients ages 40–49 were considered eligible for a mammogram biannually, while women 50 and older were considered to be eligible annually. Preventive service selections focused on the average person’s needs, not specific individual risk factors.

Data Collection

Data pertaining to tobacco use were compiled from patient encounters, chart audits, and exit cards. “Tobacco Identification” indicated whether the physician asked the patient, during the observed visit, if they used tobacco and/or whether the patient’s tobacco use status was recorded in the medical chart. Self-reported tobacco use was determined from exit cards. In smokers, “Tobacco Counseling” measured whether the physician addressed reasons for quitting and/or the health hazards associated with tobacco use. Tobacco Counseling included whether the physician actually addressed or initiated specific strategies for cessation with the patient or whether these strategies were documented in the chart. Credit was given for tobacco counseling, even if it was limited to a brief “need to quit” comment.

The height and weight for each HCM patient were extracted from the chart audit data. Fourteen of the 95 cases were omitted from this analysis because there was no height and/or weight recorded. The formula Kg/m^2 was used to calculate the body mass index (BMI) for each patient. In the 21 encounters that demonstrated a $\text{BMI} \geq 30$, it was further determined how frequently obesity was recognized and addressed during a given encounter and whether this issue was raised by the patient or provider. We examined the individual treatment plans and discussed the variations in recommendations.

Analysis

Qualitative analysis of all 95 HCM encounters was used to identify patterns or themes, while quantitative analysis was performed on chart audits and observation data. After reading the text independently and highlighting any noteworthy segments, we discussed the encounters in detail to identify patterns that felt important for understanding similarities and differences among encounters.³⁰ Patterns and variations with respect to the encounter structure were examined for evidence of the presence or absence of a protocol such as a written or mental checklist.³¹ We also noted whether individual patients raised additional concerns or questions and how frequently clinicians addressed these issues. Finally, we discussed the timing of these

patient concerns. These concerns were categorized according to the body system they represented (eg, gynecological, neurological, etc)

Results

Ninety-five female adult HCM encounters, rendered by 47 different clinicians, were reviewed for content and process. The results are described in three sections. The first section describes the actual content of the HCM visits as it relates to the delivery of preventive services. The second section discusses the providers' style and the process and structure of the encounters. The third section focuses on the patient's agenda, describing the way patients' concerns arose and the manner in which these were processed during HCM visits.

Delivery of Preventive Services in HCM Visits

Table 1 shows the rate of preventive service delivery to eligible patients during the individual HCM visits. While some services were routinely offered, other services recommended by the US Preventive Services Task Force were not. Preventive services delivered in more than 50% of the encounters included blood pressure measurements (98%) and weight (93%), breast (93%) and pelvic (88%) examinations, tobacco identification (87%) and counseling (63%), and mammography recommendations (70%). Key preventive issues less frequently addressed were cholesterol screening (21%), colon cancer screening (12%), alcohol use (32%), and tetanus/influenza/pneumococcal vaccinations (13%, 18%, 21%).

Tobacco use (or nonuse) was either identified during the visit or documented in the chart in 87% of patients. Women older than 50 were significantly less likely to have tobacco use identified in comparison with their younger counterparts (75% versus 95% and 92%). Tobacco counseling took place in 63% of encounters with smokers ($n=30$), resulting in missed opportunities to address tobacco abuse during the remainder 37% of preventive care visits. The highest rate of tobacco counseling was observed in the 40–49-year-old age group (86%); only 54% of the 13 adult smokers below age 40 were counseled.

Twenty-one patients (22%) were obese, with a BMI of 30 or more. Many more were overweight, and 14 charts did not contain sufficient data to calculate the BMI. While some form of health habit counseling occurred in 81% ($n=17$) of visits by obese patients, no BMI was calculated or referred to in any of the patient charts. Among obese patients, the patient initiated concerns about weight 39% of the time. Neither the provider nor the patient raised the issue of obesity in three visits. Therapeutic interventions for obese individuals who received counseling focused on exercise (82%). The need for dietary changes (53%) and the options regarding pharmacotherapy (29%) were discussed less frequently. Eighteen percent of obese patients received advice en-

compassing all three of the above strategies.

Certain services, specifically recommended for women older than 50 years at the time of the study, were performed less consistently, including colon cancer screening, adult immunizations, and hormone replacement therapy. Among the 33 women 50 years of age and older, 33% had a fecal occult blood test and 12% a flexible sigmoidoscopy. Influenza (18%) and pneumonia (21%) vaccinations were generally not up to date. Hormone replacement therapy was discussed 48% of the time.

The Process, Structure, and Style of HCM Encounters

Detailed analysis of the process of care described for each of these HCM encounters provided insights into different patterns or styles used by clinicians in their interactions with patients. Three distinct visit styles were readily identified that ranged considerably in the degree of structure and level of patient participation. At one extreme were encounters that solely reflected the clinician's agenda and that relied on written checklists to guide the content and process of the encounters. At the other extreme were encounters that had no apparent checklist and in which the patient appeared to set the agenda. A third pattern described clinicians who incorporated a checklist or structured agenda but also allowed patients the opportunity to address their issues in what could be called "structured but open to questions and concerns" encounters.

The majority (75%) of clinicians consistently used one particular approach when engaging in HCM visits. Most of these providers (62%), including those with a specific interest in prevention, used a "structured but open to questions and concerns" style, which characteristically included clinician comments such as "Do you have any concerns or problems?" "Go ahead and ask your questions," "How are you doing otherwise?" "What else can we do for you?" Nevertheless, through observing behaviors or through interviews, it was discovered that these clinicians followed a written or mental checklist to ensure that certain topics were addressed. Thirty-eight percent of clinicians routinely followed the checklist style, addressing preventive issues in a systematic fashion but leaving little time for patients to voice their priorities or give their individual feedback. No providers used the open-ended approach (which strongly reflected the patient's agenda) on a regular basis.

Twenty-four percent of clinicians expressed variation in their style. The majority (72%) used a checklist format, as well as a "structured but open to questions and concerns" style, 18% made use of all three approaches, while only 9% used both open-ended and structured styles.

Table 1

Clinical Preventive Service Rates Provided for 95 Adult Female HCM Visits to Clinicians in 18 Nebraska Practices, by Age Group for Services Rated A or B

	Age			Strength of Recommendation*
	19–39	40–49	50+	
# (% of total)	38 (40%)	24 (25%)	33 (35%)	
Screening				
Height measured	37%	7%	36%	B, B, B
Weight measured	92%	100%	91%	B, B, B
Blood pressure measured	100%	100%	94%	A, A, A
Vision tested	NA	NA	0%	I, I, B**
Hearing tested	NA	NA	0%	I, I, B**
Pelvic exam/Pap testing	90%	88%	85%	A, A, A
Cholesterol testing	20%	21%	21%	C, B, B
Flexible sigmoidoscopy	NA	NA	12%	D, D, B
Fecal occult blood test	NA	NA	33%	D, D, B
Mammography	NA	63%	76%	D, C, A
Alcohol use/problem drinking	45%	29%	21%	B, B, B
Counseling				
Physical activity	50%	42%	45%	B, B, B
Seatbelt use	20%	4%	15%	B, B, B
Hormone replacement therapy	NA	NA	48%	D, D, B
Tobacco counseling***	54%	86%	60%	A, A, A
Tobacco identification****	95%	92%	75%	A, A, A
Immunizations				
Adult tetanus vaccine	13%	4%	21%	A, A, A
Influenza vaccine	NA	NA	18%	D, D, B
Pneumonia vaccine	NA	NA	21%	D, D, B

HCM—health care maintenance

* A—the US Preventive Services Task Force (USPSTF) strongly recommends that clinicians routinely provide to eligible patients. The USPSTF found good evidence that the service improves important health outcomes and concludes that benefits substantially outweigh harms.
 B—the USPSTF recommends that clinicians routinely provide. Fair evidence that the service improves important health outcomes and that benefits outweigh harms.
 C—USPSTF makes no recommendation for or against routine provision of the service. Fair evidence that the service can improve health outcomes but balance of benefits and harms too close to justify general recommendation.
 D—USPSTF recommends against routinely providing to asymptomatic patients. At least fair evidence that service is ineffective or that harms outweigh benefits.
 I—evidence is insufficient to recommend for or against.
 Source: USPSTF Guide to Clinical Preventive Services, Second Edition. Baltimore: Williams & Wilkins, 1996.

** For patients 65 years of age or older only

*** Tobacco counseling rates are based on percentage of patients identified as tobacco users

**** Significant at the $P < .05$ level as per chi-squared calculation

Addressing Additional Patient Concerns

In 91% of HCM visits, patients raised additional non-prevention-related concerns. These represented the patients' personal agendas and were often completely unsolicited. Overall, the patients brought up an average of two to three additional issues per encounter. Although the three open-ended visits reflected patient concerns such as depression and infertility and life stressors such as divorce, these were not exclusive to this particular style of encounter. No specific pattern was detected with respect to the type of concern voiced in relation to the style of the encounter.

The vast majority (96%) of these concerns did not specifically pertain to prevention. Four percent were related to issues such as smoking cessation and vaccinations. Patients brought up multiple issues (up to seven per individual visit) in 58 encounters (61% of the time), while a single patient agenda item emerged in 28 visits. Clinicians addressed 84% or 170 of the 203 concerns during the observed patient encounters. The nature of the concerns varied substantially. The top three categories comprised gynecological (17%), dermatological (14%), and musculoskeletal (10%) issues respectively. Medication-related questions (7%) and gastrointestinal concerns (6%) were also voiced.

The majority (71%) of problems or questions were raised at the beginning of the encounter, prior to the physical examination. This appeared to be the most suitable time for patients to discuss concerns, especially since clinicians often asked patients about any additional issues before continuing with the encounter. The second most common time was found to be at the end of the visit (16%). Only 11% of concerns were voiced during the physical examination.

Discussion

Preventive health care is a core value of family medicine that calls for a shift away from a focus on the treatment of acute illnesses to a greater emphasis on lifestyle, wellness education, and prevention.³² This approach includes screening, immunization, and health habit counseling based

on the individual patient's risk factors, lifestyle, and psychosocial needs.⁵

Although there is greater awareness of the need for prevention, specific progress has not been uniform. The best predictor of preventive service delivery is the HCM visit, which represents an ideal chance to pursue a wide spectrum of preventive care issues. Despite the Healthy People 2010 recommendations to primary care physicians, prevention is not always addressed in a comprehensive fashion, and many opportunities are missed during their encounters, especially with respect to influencing patient behavior.¹² Our study provides a look at what happens in the context of "real world" practices. The use of mixed methods provides an important strength. A limitation is the fact that this is a study of volunteer practices in the Midwest that may not reflect practices elsewhere in the country. We also observed only a small number of HCM visits with each clinician, making it difficult to identify clinician-level patterns.

Certain preventive services for women were delivered more consistently than others. We found a relatively high degree of tobacco identification and counseling and screening for hypertension, as well as cervical cancer screening and mammography. Since the level of evidence to support these screening services is strong, clinicians may be implementing these particular services more consistently than those with weaker recommendations. While there is evidence linking obesity to health outcomes, the evidence with respect to effective strategies is less clear. What is important, however, particularly with respect to health behavioral interventions, is to use every teaching opportunity (such as "One Minute for Prevention"³⁴) to promote prevention, whether this be during an HCM or an acute care visit.

HCM visits are complex encounters, which include preventive service delivery, health habit counseling, and the processing of additional patient concerns. Clinicians use a variety of styles when it comes to the process and structure of these encounters, demonstrating some diversity in the way prevention is practiced and tailored to suit a given practice context; even so, we did not find a significant difference in the preventive service delivery rates. As recommended for all patient visits, clinicians should strive to be patient centered, and HCM visits should incorporate the patient's agenda.

The ability of a particular clinician or office system to support improved delivery of prevention is hampered by competing demands and issues that patients bring to the clinical encounter.²⁸ In this study, we found that patients raised an average of two to three additional questions or concerns during these wellness visits. We previously demonstrated that up to 25% of encounters with smokers were appropriately overrid-

den by competing agendas.³³ Whereas it is not clear to what extent these concerns prevent the delivery of the needed services, we need to recognize that even scheduled HCM visits are full of competing demands. The fundamental tension between remaining patient centered during the clinical encounter and addressing competing demands requires a fresh approach that involves many of the elements identified in the Future of Family Medicine project.³²

HCM visits represent opportunities to comprehensively address prevention in a setting devoid of the pressing needs encountered during acute and chronic care visits. Our study not only examined what occurs during HCM visits but also identified specific areas in need of improvement with respect to preventive service delivery, namely cholesterol screening, colon cancer screening, alcohol use, and tetanus/influenza/pneumococcal vaccinations. Physicians may need to incorporate a wider range of preventive services during HCM visits to deliver more-comprehensive care to their female patients. However, delivering all recommended preventive services in the context of the office visit may be too much to ask of an individual clinician.³⁵ Further studies are needed to examine the potential integration of other members of the primary care team as well as available community resources into preventive service delivery.

Acknowledgments: This work was supported by a grant from the Agency for Health Care Policy and Research (1R01 HS08776).

We wish to acknowledge the contributions made by Jason Lebsack and Reinier van Tonder regarding the table referred to in this paper, the data collection performed by Connie Gibbs and Jen Rouse, and the assistance of Donadea Rasmussen, Susie Sullivan, and Jen Creer with respect to the manuscript itself.

Corresponding Author: Address correspondence to Dr Backer, 983075 University of Nebraska Medical Center, Department of Family Medicine, Omaha, NE 68198-3075. 402-559-8085. Fax: 402-559-8118. ebacker@unmc.edu.

REFERENCES

1. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States. *JAMA* 2004;291:1238-45.
2. US Department of Health and Human Services. Healthy People 2010: understanding and improving health. Washington, DC: US Government Printing Office, November 2000.
3. Meyer DG, Steinle BT. Awareness of consensus preventive medicine practice guidelines among primary care physicians. *Am J Prev Med* 1997;13(1):45-50.
4. US Preventive Services Task Force. Guide to clinical preventive services: an assessment of the effectiveness of 169 interventions, first edition. Baltimore: Williams and Wilkins, 1989.
5. US Preventive Services Task Force. Guide to clinical preventive services: an assessment of the effectiveness of 169 interventions, second edition. Baltimore: Williams and Wilkins, 1996.
6. Stange KC, Kelly R, Chao J, et al. Physician agreement with US Preventive Services Task Force recommendations. *J Fam Pract* 1992;34(4):409-16.
7. Wechsler H, Levine S, Idelson RK, Schor EL, Coakley E. The physician's role in health promotion revisited—a survey of primary care practitioners. *N Engl J Med* 1996;334(15):996-8.

8. Brunton S, Sutherland J. Disease prevention and health maintenance. In: Taylor RB, ed. *Family medicine principles and practice*. New York: Springer-Verlag, 1988.
9. Dietrich AJ, Goldberg H. Preventive content of adult primary care: do generalists and subspecialists differ? *Am J Public Health* 1984;74(3):223-7.
10. Frame PS. Clinical prevention in primary care—the time is now! *J Fam Pract* 1989;29(2):150-2.
11. Frame PS, Carlson SJ. A critical review of periodic health screening using specific screening criteria. *J Fam Pract* 1975;2(1):29-35.
12. Frame PS, Kowulich BA, Llewellyn AM. Improving physician compliance with a health maintenance protocol. *J Fam Pract* 1984;19(3):341-4.
13. Phillips TJ. The tools of preventive medicine in family practice. The annual physical examination? *Postgrad Med* 1972;51:154-8.
14. Stange KC, Zyzanski SJ, Jaén CR, et al. Illuminating the “black box:” a description of 4,454 patient visits to 138 family physicians. *J Fam Pract* 1998;46(5):377-89.
15. Dietrich AJ, Woodruff CB, Carney PA. Changing office routines to enhance preventive care. The preventive GAPS approach. *Arch Fam Med* 1994;3(2):176-83.
16. Stange KC, Flocke SA, Goodwin MA, Kelly RB, Zyzanski SJ. Direct observation of rates of preventive service delivery in community family practice. *Prev Med* 2000;31(2, Part 1):167-76.
17. American Academy of Family Physicians. Summary of policy recommendations for periodic health examination, revised 1999. Leawood, Kan: American Academy of Family Physicians, 1999.
18. Eyre H, Kahn R, Robertson RM, et al. Preventing cancer, cardiovascular disease, and diabetes: a common agenda for the American Cancer Society, the American Diabetes Association, and the American Heart Association. *Circulation* 2004;109(25):3244-55.
19. Cabana MD, Rand CS, Powe NR, et al. Why don't physicians follow clinical practice guidelines? A framework for improvement. *JAMA* 1999;282(15):1458-65.
20. Cohen SJ, Halvorson HW, Gosselink CA. Changing physician behavior to improve disease prevention. *Prev Med* 1994;23(3):284-91.
21. Oxman A, Thomson MA, Davis DA, Haynes RB. No magic bullets: a systematic review of 102 trials of interventions to improve professional practice. *Can Med Assoc J* 1995;153(10):1423-31.
22. Solberg LI, Kottke TE, Brekke ML, Magnan S. Improving prevention is difficult. *Eff Clin Pract* 2000;3(3):153-5.
23. Solberg LI, Kottke TE, Conn SA, Brekke ML, Calomeni CA, Conboy CS. Delivering clinical preventive services is a systems problem. *Ann Behav Med* 1997;19(3):271-8.
24. Collins KS, Schoen K, Duchon JS, Simantov E, Yellowitz M. Health concerns across a woman's lifespan. The Commonwealth Fund 1998 Survey of Women's Health, 1998.
25. Davis DA, Taylor-Vaisey A. Translating guidelines into practice: a systematic review of the theoretic concepts, practical experience, and research evidence in the adoption of clinical practice guidelines. *Can Med Assoc J* 1997;157(4):408-16.
26. Solberg LI, Kottke TE, Brekke ML, et al. Failure of a continuous quality improvement intervention to increase the delivery of preventive services. *Eff Clin Pract* 2000;3(3):105-15.
27. Weingarten S, Stone E, Hayward R, et al. The adoption of preventive care practice guidelines by primary care physicians: do actions match intentions? *J Gen Intern Med* 1995;10(3):138-44.
28. Jaén CR, Stange KS, Nutting PA. The competing demands of primary care: a model of clinical preventive services. *J Fam Pract* 1994;38:166-71.
29. Crabtree BF, Miller WL, Stange KC. Understanding practice from the ground up. *J Fam Pract* 2001;50(10):881-7.
30. Addison R. A grounded hermeneutic editing organizing style of interpretation. In: Crabtree B, Miller W, eds. *Doing qualitative research*, volume 1, second edition. Thousand Oaks, Calif: Sage Publications, 1999:145-62.
31. Crabtree BF, Miller WL. Using codes and code manuals: a template organizing style of interpretation. In: Crabtree BF, Miller WL, eds. *Doing qualitative research*, volume 1, second edition. Thousand Oaks, Calif: Sage Publications, 1999:163-78.
32. Martin JC, Avant RF, et al. Future of Family Medicine Project Leadership Committee. The Future of Family Medicine: a collaborative project of the family medicine community. *Ann Fam Med* 2004;2 Suppl 1: S3-S32.
33. Jaén CR, McIlvain HE, Pol L, Phillips RL Jr, Flocke S, Crabtree BF. Tailoring tobacco counseling to the competing demands in the clinical encounter. *J Fam Pract* 2001;50(10):859-63.
34. Stange KC, Woolf SH, et al. One minute for prevention: the power of leveraging to fulfill the promise of health behavior counseling. *Am J Prev Med* 2002;22:320-3.
35. Yarnall KSH, Pollack KI, Ostbye T, Krause KM, Michener JL. Primary care: is there enough time for prevention? *Am J Pub Health* 2003;93:635-41.