Texas A&M University-San Antonio

Digital Commons @ Texas A&M University-San Antonio

Public Health

College of Arts and Sciences

5-2014

Family Physicians' Opinions on the Primary Care Documentation, Coding, and Billing System: A Qualitative Study From the **Residency Research Network of Texas**

Richard A. Young

Bryan Bayles

Jason H. Hill

Kaparabonya A. Kumar

Sandra Burge

Follow this and additional works at: https://digitalcommons.tamusa.edu/health_faculty



Part of the Public Health Commons



Family Physicians' Opinions on the Primary Care Documentation, Coding, and Billing System:

A Qualitative Study From the Residency Research Network of Texas

Richard A. Young, MD; Bryan Bayles, PhD, MPH; Jason H. Hill; Kaparaboyna A. Kumar, MD; Sandra Burge, PhD

BACKGROUND AND OBJECTIVES: The study's aim was to deepen our understanding of family physicians' perceptions of the strengths and weaknesses of the widely used US documentation, coding, and billing rules for primary care evaluation and management (E/M) services.

METHODS: This study used in-depth, qualitative interviews of 32 family physicians in urban and rural, academic, and private practices. Interviews were initiated with a series of grand tour questions asking participants to give examples and personal narratives demonstrating cost efficiencies and cost inefficiencies relating to the E/M rules in their own practices. Investigators independently used an immersion-crystallization approach to analyze transcripts to search for unifying themes and subthemes until consensus among investigators was achieved.

RESULTS: The majority of participants reported that the documentation rules, coding rules, and common fees for procedures and preventive services were reasonable. The E/M documentation rules for all other visit types, however, were perceived by the participants as unnecessarily complicated and unclear. The existing codes did not describe the actual work for common clinic visits, which led to documenting and coding by heuristics and patterns. Participants reported inadequate payment for complex patients, multiple patient concerns in a single office visit, services requiring extra time beyond a standard office visit, non-face-to-face time, and others. The E/M rules created unintended negative consequences such as family physicians not accepting Medicare or Medicaid patients, inaccurate documentation, poor-quality care, and system inefficiencies such as unnecessary tests and referrals.

CONCLUSIONS: Family physicians expressed many problems and frustrations with the existing E/M documentation, coding, and billing rules and felt the system undervalued and unappreciated them for the complex and comprehensive care they provide. Findings of this study could inform improved guidelines for primary care documentation, coding, and billing.

(Fam Med 2014;46(5):378-84.)

■he Center for Medicare and Medicaid Services (CMS, formerly called HCFA) created guidelines for physician evaluation and management (E/M) services in 1995 and 1998.1 They were created to address accusations of widespread fraud and abuse of physician billing practices and introduced concepts such as counting bullet points of data for reviews of systems and physical

In 2002, an Advisory Committee on Regulatory Reform of the US Health and Human Services Department reviewed these guidelines and voted 20-1 to eliminate the payment rules.2 An advisor for Secretary Tommy Thompson concluded, "Documentation guidelines are the poster child for regulatory burden."3 In spite of these findings, no new guidelines have been created. In 2008, the chair of the Medicare Payment Advisory Commission also criticized the current fee structure.4 Complaints about the existing E/M documentation, coding, and payment rules by several stakeholders have led to calls for reform,5 and new payment approaches

From the Family Medicine Residency Program, John Peter Smith, Fort Worth, TX (Dr Young); and the Department of Family and Community Medicine, University of Texas Health Science Center at San Antonio (Dr Bayles, Mr Hill, Dr Kumar, and Dr Burge). All authors represent the Residency Research Network of Texas

are being tested in several demonstration projects.6,7

Even though these rules have been in place almost 20 years, there has been little research on the performance of these E/M rules in practice. The purpose of our study was to seek family physicians' opinions of the existing CMS E/M documentation, coding, and billing rules.

Methods

Participants were a purposive, convenience sample of family physicians at or near residencies affiliated with the Residency Research Network of Texas (RRNeT), which is a collaboration of 10 family medicine residency programs in nine cities in Texas that includes more than 100 practicing family physician faculty and 300 family medicine residents. Several RRNeT faculty volunteered for interviews and also identified suitable study subjects in private practice in each residency region. The investigative team for this study consisted of two family physicians (RY and KK) and three social scientists (SB, JH, and BB).

We sought narrative stories to illustrate strengths and weaknesses of the existing CMS E/M rules. While investigators expected family physicians would report problems with the existing system, we also sought contradictory cases—for example, explicit instances where the existing system might pay fairly for a service or procedure or even overpay for such a service. Investigators followed the Spradley method of ethnographic interviewing and developed a series of "grand tour" questions and successive follow-up probes designed to elicit discussion of the strengths and weaknesses of the E/M rules.8 These questions were vetted with further discussion between the investigators that produced the final grand tour (Table 1) and probe questions.

Procedure

After participating in a 2-day training session in San Antonio, eight medical students went to eight of the 10 affiliated residencies to conduct

the interviews. Training included basics of research design, ethics, reporting, and qualitative methods and study-specific background on the existing CMS E/M rules. RRNeT faculty representatives at each site contacted local family physicians to participate. Following principles of ethnographic sampling,9 investigators sought physicians who represented variation in practice location, experience, and job responsibilities. Physicians were chosen from rural, urban, and suburban practices, both private practice and academic physicians. Almost all the academic physicians cared for a panel of personal patients, and many had private practice experience prior to joining their faculty groups.

Students interviewed two to five physicians each and kept detailed field notes to record thoughts and impressions as they emerged from interviews. They collected basic demographic information from each participant. Interviewees were not paid to participate. The interviews were audiorecorded, de-identified, and transcribed.

Data Analysis and Interpretation Investigators independently used an immersion-crystallization approach to the narratives with the intention of reducing and reassembling the information, regularly pausing during data analysis to reflect on process and emergent themes.¹⁰ Step 1 of the analysis involved reading the transcripts and notes and identifying the most salient and

commonly occurring phrases relating to the study aim. In Step 2, investigators independently identified major themes emerging from identified passages and notes. These processes started a few weeks into the study to look for emerging themes, make necessary modifications in the interview questions, and assure the medical students were performing adequately.

An interim analysis led the investigators to conclude that some of the pertinent issues were not probed in sufficient detail by the students and that saturation of themes had not been achieved. For example, the students did not further probe vague comments on the E/M documentation and coding rules and participant Current Procedural Terminology (CPT) code selection. Some original participants were further queried about under-explored themes, and seven more study participants were enrolled and interviewed by the investigators. These additional participants were purposive and convenient to two of the investigators and represented established family physicians in private practice. A subsequent analysis concluded that the investigators had a better understanding of the participants' responses and that theme saturation had been reached.

For Step 3, three investigators took the collected themes and organized them into broad categories. All investigators re-read the transcripts and labeled text sections according to this coding framework. A final rubric of themes and subthemes was vetted

Table 1: Grand Tour Questions

- 1. In your experience, what part of your work is fairly captured, coded, and billed under the existing E/M system?
- 2. What services do you provide to your patients that are not fairly captured, coded, and billed under the existing E/M system?
- 3. If you were allowed to blow up the existing E/M system and start all over, what would that system look like for primary care billing and coding?
- 4. What should be preserved in the current E/M system?
- 5. What services do you provide that are overpaid under the current system?

E/M-evaluation and management

by a consensus approach, with textual examples identified and agreed upon for the major findings. Multiple rounds of emails, telephone conversations, and manuscript drafts were required to achieve final consensus.

The project was approved by the Institutional Review Board (IRB) at UTHSCSA, and each of the participating residencies.

Results

Thirty-two interviews were completed. Characteristics of the interviewed physicians are shown in Table 2.

Documentation and Coding **Unnecessarily Complicated With Unclear Rules.** A few participants said the current system documentation rules were appropriate and needed no changes, but most characterized the rules as too tedious, irrational or inconsistent, and not in the patients' nor the physicians' best interests.

When you're writing a progress note and you're thinking more about how you're going to get reimbursed based on what you've written rather than how your note is going to help the next doctor take care of a patient, you know something's wrong.

The rules concerning the CMS E/M approach of counting review of systems covered and physical examination bullet points were singled out as being particularly onerous and burdensome.

You have to have at least four items in the HPI, four from this column and three from here, and you have to document at least two out of three categories here . . . [T]here's literally three-page trifold charts to help you determine what code to use for your medical decision making.

Most family physicians reported that the current E/M system was too complicated, took years to learn, and created unnecessary administrative overhead as a result of the need to hire certified billing/coding professionals to fully capture revenue. In addition to the complexity of the existing rules, the lack of clarity and consistent interpretation of how to apply them, even among so-called experts, was a particular frustration.

Actual Coding Choices Driven by Cheat Sheets, Heuristic, and Patterns. Family physicians rarely demonstrated knowledge of the CMS E/M rules in great detail. Some respondents described using cheat sheets to remind them of the number of documentation elements needed to justify a certain CPT code. Others applied CPT codes by heuristics and patterns in many cases, driven by previous negative feedback from an E/M billing consultant who stated the physician overbilled.

You pull [the proper code] out of the air. If I deal with something that's a new problem and I gave 'em medicine for it, I typically say that's a four, or if they have five chronic medical problems and we've dealt with those, I usually do a four and if I do more than three or four in review of systems and it's not a cold or something, I might do a four. ... [I]t's like Greek. It's crazy. It just seems so complicated.

Undercoding Driven by a Fear of Audits. As a further response to their belief that the E/M rules were too confusing and complicated, many participants mentioned a fear of CMS or insurance company

audits that resulted in purposeful under-coding of patient encounters.

I usually try to stick to a level three because we're scared of an audit, not really knowing how to defend yourself, back up what you're doing.

Inadequate Codes. Physicians also reported that some visits in primary care do not have codes that allow the physician to express their work in a reimbursable fashion.

You have a child who comes in for a sports physical, ... [W]ith Medicaid, you're only allowed one physical examination a year, so it's an ambiguous code really.

Some Services Fairly Documented, Coded, and Paid

Many participants stated that some services under the existing payment rules are fairly documented, coded, and billed: procedures and well person or preventive care. About an equal number said no services were fairly paid. Often when participants mentioned procedures being overpaid, they referred to procedures performed by specialists.

I think we're generous on our payment for ingrown toenails and stuff like that, but I don't think we're necessarily getting overpaid for it.

As for being overpaid, procedures were the only services that were mentioned by a minority of participants. However, this type of statement was commonly associated with

Table 2: Participant Demographics

Characteristic	Mean (SD, Range)
Age	48 years (11.5, 24–83)
Male	69%
Years in practice	18 (10.4, 3–39)
Practice environment	
Private practice	47%
Residency program	34%
Community health center	19%

a complaint about a lack of payment for cognitive work.

[F] or a thrombosed hemorrhoid, all I had to do was take a scalpel, pull it open, and push out the clot, and it took me all of 5 minutes, I can charge \$700 for that, under the billing and coding systems. But if I treated that same person for diabetes, hypertension, counseled him on diet and exercise, talked about medications and side effects I could get a hundred and something dollars for that.

Work Poorly Paid

Addressing Multiple Issues in a Single Visit. Family physicians believed that the existing E/M rules do not pay them when they address more than one or two issues in a single office visit.

When I look at a patient with multiple problems, after the first or second problem, whenever I address something extra, it's not being captured, and I'm not being paid for that . . .

Physicians were discouraged from adding E/M services to preventive or wellness visits. The limitations resulted not so much from the CMS E/M rules but from insurance companies that did not pay for some codable services. The resultant conflict with the patient was listed as a frustration.

United Healthcare decided that an annual exam will only be paid for at that visit. No "by the ways," so you can't bill for a bad knee, skin issues, etc. It's tough to explain to a patient to come back next week.

On the other hand, altruism and professionalism led physicians to spend more unpaid time with patients who needed the attention.

I've had many times where my hand is on the door, of course, they're like, 'Oh, and I'm not sleeping.' And I'm not just going to say, 'Well, we'll deal with that next time.' I turn around, sit down, and we talk about that issue, which is usually another 10-minute talk.

Care of Complex Patients. Participants believed they were not adequately paid for taking care of patients with complex needs, which could arise from factors including multiple chronic diseases, difficult patients, family/social factors, language/cultural barriers, and financial barriers. They also felt the existing codes did not allow them to express the kind of work they performed in these cases. For example, there were no usable codes to document and bill for time spent beyond routine care.

[A patient] was having neck pain and some arthritis, and she had some shoulder issues; but some of the explanation she got from the specialist didn't go well. He gave her very brief descriptions of things, and she had a lot of concerns, and there was a lot of anxiety. I spent a lot of my time just going through what the other people should have done already, and then I spent a lot of time trying to calm the anxiety and just the worries that she had about some of the diagnoses. You are not getting paid for any of that, and that is not something you can code. ...[O]n paper, it just looks like a follow up on neck pain and arthritis.

Mental Health Care. Some participants explicitly stated that the payers in their area do not pay for mental health diagnoses.

I see a patient purely for psychiatric diagnosis, depression, bipolar, ADHD, and [if] that's ... the only code I use, [I] won't get reimbursed at all for seeing that patient.

Non-Face-to-Face Time. Participants believed they provided a lot of work outside the traditional office visit that was critical for excellent patient care but that the time to provide this work was uncompensated.

This work was described as medication review, care coordination, telephone consultation, and paperwork.

... I spent 20 to 30 minutes just reviewing [one patient's] medication lists outside of the office visit. The patient had been in the hospital, he's on about 20 different medications from about five different physicians, and the medication list from the hospital did not correlate with my medication list.

Inadequate Payment to Care for Hospitalized Patients. Participants also mentioned poor payment related to hospitalized patients, both the opportunity cost of travel time to the hospital and poor payment for the actual hospital work, in spite of system savings resulting from the contributions of the family physician.

I know that unless I have four or five patients in the hospital at one time, I'm probably not breaking even compared to the office . . . When I go see my patient in the hospital, I don't let silliness happen. I don't let unnecessary procedures happen.

Other examples of poorly paid work in facilities away from the clinic included the telephone calls and paperwork associated with nursing home care and a complete lack of payment in shared call arrangements where not all practices accepted the same insurance plans.

Unintended Negative Consequences of the E/M Rules Current System Disincentives. The lack of payment for complex patients was listed as a reason many family physicians did not accept Medicare or Medicaid patients (who are paid by CMS).

None of us want to take care of old people, or we can only afford to take care of a few so that leads to a community like here, people calling all day looking for a doctor who'll take 'em. **Current System Encourages Documentation Shortcuts and** Poor Quality Care. Participants gave examples of approaches they used to overcome onerous documentation rules or poor payment, such as using pre-written disease-specific templates in their EMR notes. They confessed they sometimes did not ask all the questions or perform all of the physical examination elements documented in a note.

In an attempt to code for insurance, electronic health records have become extremely artificial and actually encourage physicians to be untruthful with what they document. They will document things that obviously they did not perform in the physical examination.

Participants also gave examples of how they deviated from ideal careie, cut corners—because of the time burden of existing documentation rules and limitations of payment models.

You don't have time to spend 20 minutes and then document for 20 minutes.

Current System Encourages Systemic Inefficiencies. Participants stated that the existing E/M rules contributed to family physicians offering fewer services than they were qualified to provide. This resulted in inconvenience and possible harm to patients and increased costs to the health care system. The current system incentivized the physicians to request unnecessary referrals, tests, and trips to the ER.

... [I]f you pay me less, I don't have time to fix everything. ... I'm going to send [the patient] to the spe-

Participants' frustration with the lack of payment for these services was heightened by a feeling that this poorly compensated or uncompensated work saved money in other aspects of the health care system.

I can ... talk someone out of having atrial fibrillation ablation, saving the system \$300,000 and then get paid \$45 for that hour, or I can take off a melanoma and get paid \$600.

Participants' knowledge of mental illness and behavioral concerns were suggested as a common mechanism by which systemic savings are realized.

Someone comes in and they're having anxiety attacks. . . . You may or may not even do an EKG. You don't do labs. You sort of spend a lot of time in depth getting the history and what's provoking it, as opposed to if you take sort of a non-cognitive approach: EKG, chest x-ray, admit to the hospital, rule out MRI. The difference in payment would be probably quintuple to put someone in the hospital

Current E/M Complexities Were Confused With Electronic Medical Record Functions. Some participants could not disentangle CMS E/M rules from electronic medical record (EMR) functions. When probed to comment on rules such as physical examination bullet counting or whether a CPT code required that the past medical, social, family histories be reviewed, some participants attributed these concepts as features of the EMR rather than recognizing the EMR was constructed to conform to the CMS E/M rules.

Discussion

This study identified a multitude of problems with the existing CMS E/M documentation, coding, and billing system. While some participants stated that a few existing E/M rules and related payments for services were reasonable—preventive and procedural codes and fees—they felt that existing codes did not describe their actual work for common clinic visits, which led to documenting and coding by heuristics and patterns. Participants reported inadequate payment for complex patients, multiple patient concerns in a single

office visit, services requiring extra time beyond a standard office visit, non-face-to-face time, and others. The E/M rules created unintended negative consequences such as inaccurate documentation, poor-quality care, and system inefficiencies such as unnecessary tests and referrals. An overarching emerging theme that connected many of the specific themes was a feeling among the family physicians that their work was undervalued and unappreciated on many levels: the inability to express on a billing form the number of issues substantively addressed in a clinic visit, the lack of respect for the complexity of family medicine, the non-face-to-face work that patients and regulators expected the physicians to provide for no payment, a bias toward paying more for procedures than cognitive work, and a perception that specialists were paid more for similar or even easier work.

I wish I were a specialist. ...It's the same thing over and over. They have it easy, and they get paid more.

After they were published, the existing CMS E/M rules were criticized in leading medical journals as (1) adding unnecessary documentation elements to the clinical encounter, (2) enhancing a trend in which the scope and format of documentation in medical records are determined by billing and insurance considerations, (3) creating a fear of fraud allegations that actually spawned undercoding for E/M services, and (4) predicting that the guidelines would actually have no impact on fraud and abuse.11 Our study found very similar opinions. The primary intent of the original HCFA rulesto decrease fraud and abuse-was not identified as a positive feature of the CMS E/M rules by our participants. In fact, one of the ironies of our findings is that participants reported taking documentation shortcuts, such as using physical exam templates that included exam elements that were not performed, that could be construed as fraudulent billing under CMS's rules. The complexity of the existing E/M rules also emerged through comments the participants did not make. We were left with the impression that very few participants knew the E/M rules in great detail. For example, no participant suggested changing the Table of Risk (page 20 of the current CMS E/M Services Guide)12 to allow a patient with exacerbations of multiple chronic diseases to be classified as a higher-risk patient than a patient with one chronic disease exacerbation.

Our findings are consistent with the literature documenting how often professional coders disagree on appropriate codes for specific patient encounters, which can range from 57% agreement to as low as 15%. ^{13,14} Coding disagreements have been associated with physician undercoding, which is often the result of not documenting all the of the issues addressed and final diagnoses in the medical record. 15,16 Several authors have concluded that the CPT coding guidelines are too complex and subjective to be applied consistently by coding specialists or physicians, 13,17 which was echoed in our findings.

Our findings should particularly trouble payers, because the highestcost patients are those with multiple chronic diseases,18 yet our participants reported making unnecessary referrals, ordering unnecessary tests, and abandoning hospital practice for these patients. The lack of payment for a family physician addressing multiple issues in one clinic visit is especially troubling given previous research showing that a family physician addresses 2.5 to 3.1 issues in the average clinic visit, 19-21 3.9 to 6 for elderly patients, and 4.6 for patients with diabetes. 20,22 This lack of payment helps explain observations that primary care physicians only spend 1 minute each on other patient concerns after the chief complaint is addressed22 and that chronic disease care quality was reduced when other acute patient concerns were addressed.²³

Limitations

Our interviews were limited to family physicians in Texas, which may limit its generalizability to other regions. Interviews with family physicians in other parts of the country might reveal regional differences in perceived difficulties with the E/M system, though the national footprint of the CMS E/M rules would tend to minimize regional biases. Study validity was enhanced by interviewing urban, suburban, and rural family physicians and physicians with academic and private practice careers. These findings may be strengthened by also obtaining the perspectives of payers or others concerned with quality, safety, and fraud.

Implications and Future Research

Though many primary care enhancement demonstration projects have begun in the United States over the last 5 years, ²⁴⁻²⁸ our study provides further insight on problems with the existing E/M rules and payment system that could inform future primary care's payment reform efforts. We hope that our findings will contribute to primary care payment reform that will support and grow the primary care workforce the United States so desperately needs.

ACKNOWLEDGMENTS: Funding was received from the Texas Academy of Family Physicians Foundation, Health Resources and Services Administration, Award #1D54HP16444, and the Office of the Medical Dean of the University of Texas Health Science Center at San Antonio.

Previous versions of this paper were presented at JPS Research Day, June 2012, and the North American Primary Care Research Group 2012 Annual Meeting, New Orleans.

We are grateful for medical student assistants: Les Alloju, Carlos Cardenas, Anna Haring, Ryan Horton, Laura Iglesias, Adam Kirkland, and Kristin Yeung.

We thank the participating physicians at each site for allowing our research team into their busy practices.

RRNeT investigators also include Swati Avashia, MD; Jerry Kizerian, PhD; Raji Nair, MD; Darryl White, MD; David Edwards, MD; Sunand Kallumadanda, MD; and Tamara Armstrong, PsyD.

CORRESPONDING AUTHOR: Address correspondence to Dr Young, John Peter Smith FMRP, 1500 S. Main, Fort Worth, TX 76104. 817-927-1412. Fax: 817-927-1691. ryoung01@ jpshealth.org.

References

- 1997 documentation guidelines for evaluation and management services. In: Centers for Medicare and Medicaid Services, ed. Washington, DC: Centers for Medicare and Medicaid Services, 1997.
- 1997 documentation guidelines for evaluation and management services. In: Centers for Medicare and Medicaid Services, ed. Washington, DC: Centers for Medicare and Medicaid Services, 1997. Accessed February 22, 2011.
- Medicare physician payment: time to act on E&M mess. American Medical News. Chicago: American Medical Association. [online] http:// www.ama-assn.org/sci_pubs/amnews/amn/_02/ edsa0701.htm.
- Arvantes J. MedPAC members characterize RBRVS System as subjective, "deeply flawed." AAFP News Now 2009(Nov 3).
- American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Physicians (ACP), American Osteopathic Association (AOA). Joint principles of the patient-centered medical home. February 2007. http://www.aafp.org/online/etc/medialib/aafp_org/documents/policy/fed/jointprinciplespcmh0207.Par.0001.File. dat/022107medicalhome.pdf. Accessed February 22, 2011.
- Grumbach K, Grundy P. Outcomes of implementing patient-centered medical home interventions: a review of the evidence from prospective evaluation studies in the United States. 2010 (Nov 16). http://www.pcpcc.net/files/evidence_outcomes_in_pcmh.pdf Accessed August 18, 2011.
- Center for Medicare and Medicaid Innovation. Comprehensive primary care initiative. http://www.innovations.cms.gov/initiatives/Comprehensive-Primary-Care-Initiative/index.html. Accessed September 28, 2012.
- Spradley J. The ethnographic interview. San Diego: Harcourt, Brace, Javonovich, 1979.
- Werner O, Bernard H. Short take 13: ethnographic sampling. Field Methods 1994;6(2):7-9.
- Miller W, Crabtree B. Doing qualitative research, second edition. Thousand Oaks, CA: Sage Publications, 1999.
- Brett AS. New guidelines for coding physicians' services—a step backward. N Engl J Med 1998;339(23):1705-8.
- Medicare Learning Network. Evaluation and management services guide. December 2010. www.cms.gov/Outreach.../eval_mgmt_serv_ guide-ICN006764.pdf. Accessed January 12, 2012.
- King MS, Lipsky MS, Sharp L. Expert agreement in current procedural terminology evaluation and management coding. Arch Intern Med 2002;162(3):316-20.
- Zuber TJ, Rhody CE, Muday TA, et al. Variability in code selection using the 1995 and 1998 HCFA documentation guidelines for office services. Health Care Financing Administration. J Fam Pract 2000:49(7):642-5.
- Holt J, Warsy A, Wright P. Medical decision making: guide to improved CPT coding. South Med J 2010:103(4):316-22.

- Horner RD, Paris JA, Purvis JR, Lawler FH. Accuracy of patient encounter and billing information in ambulatory care. J Fam Pract 1991;33(6):593-8.
- King MS, Sharp L, Lipsky MS. Accuracy of CPT evaluation and management coding by family physicians. J Am Board Fam Pract 2001;14(3):184-92.
- Anderson GF. Medicare and chronic conditions. N Engl J Med 2005;353(3):305-9.
- Stange KC, Zyzanski SJ, Jaen 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.
- Beasley JW, Hankey TH, Erickson R, et al. How many problems do family physicians manage at each encounter? A WReN study. Ann Fam Med 2004;2(5):405-10.

- Flocke SA, Frank SH, Wenger DA. Addressing multiple problems in the family practice office visit. J Fam Pract 2001;50(3):211-6.
- 22. Tai-Seale M, McGuire TG, Zhang W. Time allocation in primary care office visits. Health Serv Res 2007;42(5):1871-94.
- Fenton JJ, Von Korff M, Lin EH, Ciechanowski P, Young BA. Quality of preventive care for diabetes: effects of visit frequency and competing demands. Ann Fam Med 2006;4(1):32-9.
- Crabtree BF, Nutting PA, Miller WL, Stange KC, Stewart EE, Jaen CR. Summary of the National Demonstration Project and recommendations for the patient-centered medical home. Ann Fam Med 2010;8 Suppl 1:S80-S90, S92
- Orszag PR, Ellis P. Addressing rising health care costs—a view from the Congressional Budget Office. N Engl J Med 2007;357(19):1885-7.
- Share DA, Mason MH. Michigan's Physician Group Incentive Program offers a regional model for incremental "fee for value" payment reform. Health Aff (Millwood) 2012;31(9):1993-2001
- Crosby JB, Grundy P, Rogers E. Proof in practice. www.pcpcc.net/files/pcmh_demo_guide-lines.pdf. Accessed January 13, 2013.
- 28. Nielsen M, Langner B, Zema C, Hacker T, Grundy P. Benefits of implementing the primary care patient-centered medical home: a review of cost and quality results, 2012. http:// www.pcpcc.net/guide/benefits-implementingpcmh. Accessed September 17, 2012.

MAY 2014 · VOL. 46, NO. 5