Figure. Percentage change in number of year 1 residency positions (PY-1) offered from 1998 to 2008 by specialty. Percentages in parentheses are percentage growth in specialty income adjusted for inflation between 1998 and 2007.

Expansion of positions in the “R.O.A.D.” disciplines (radiology, ophthalmology, anesthesiology, and dermatology) and emergency medicine over the last 10 years parallels losses in family medicine, general pediatrics, and general internal medicine. General internal medicine positions increasingly serve as channels for revenue-generating subspecialty programs, leaving fewer internal medicine positions dedicated to primary care. Policy makers hoping to realize the superior health outcomes and increased costs associated with greater access to primary care may find this trend alarming.7 Our findings support the concern expressed by the COGME that instead of responding to policy aims to correct shortage in primary care pipeline, hospitals are instead training to meet hospital goals.

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Author Contributions: Dr Phillips had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: Weida, Phillips, and Bazemore. Acquisition of data: Weida, Phillips, and Bazemore. Analysis and interpretation of data: Weida and Phillips. Drafting of the manuscript: Weida, Phillips, and Bazemore. Critical revision of the manuscript for important intellectual content: Weida, Phillips, and Bazemore. Statistical analysis: Weida. Administrative, technical, and material support: Phillips and Bazemore. Study supervision: Phillips.

Financial Disclosure: None reported.

Disclaimer: The information and opinions contained in research from the Robert Graham Center do not necessarily reflect the views or policy of the American Academy of Family Physicians.

6. Graduate Medical Education [Appendix II, Table 1A—Resident physicians in ACGME-accredited and in combined specialty graduate medical education (GME) programs on August 1, 1997]. JAMA. 1998;280(9):836-841.

**The Scope and Targeting of Influenza Vaccination Reminders Among US Adults: Evidence From a Nationally Representative Survey**

Despite broad recommendations and substantial evidence regarding effectiveness and safety, influenza vaccine uptake among US adults falls short of targeted rates.1,2 Rigorously designed studies have shown that patient reminders are highly effective in improving influenza immunization rates.3,4 Yet, there are no nationally representative data concerning the share of adults who currently receive influenza vaccination reminders, and there is no evidence regarding the targeting of these reminders toward patients recommended for vaccination.1 We present herein nationally representative estimates of self-reported receipt of a reminder to be vaccinated against influenza among US adults and show how reminder receipt varies by recommendation status.

Methods. We analyzed data from a nationally representative survey of US adults 18 years and older (N = 5105) fielded by Knowledge Networks (Menlo Park, California) between March 4 and April 7, 2009. Knowledge Networks operates an online panel of households that covers both the online and offline population.3 Sixty-nine percent of sampled panelists responded to the survey.

The survey asked respondents about receipt of a postcard, letter, e-mail, or telephone call reminder concerning influenza vaccination from (1) a physician, (2) a nurse, physician’s assistant, or other health care provider, (3) a health insurance or health plan, (4) a health department, or (5) an employer during the last fall season, allowing for multiple responses. We merged categories (1) and (2) into a combined category “health care provider.”

We assessed membership in a subgroup for whom vaccination against seasonal influenza is specifically recommended using measures of self-reported age (50 years and older), health conditions (diabetes, heart disease, chronic...
The Results. The Table presents estimates of influenza vaccination reminder receipt among US adults both overall and by recommendation status and reminder source. Of the US adult population, 23.2% received an influenza vaccination reminder during the 2008-2009 vaccination season. Overall, employers were the most important source of vaccination reminders, reaching 10.3% of all adults, which was ahead of health care providers and health insurance companies, reaching 8.4% and 6.3% of adults, respectively.

Reminder receipt does not appear to be systematically higher among subpopulations specifically recommended for vaccination. Health care workers are an important exception, with 36.8% reporting the receipt of a vaccination reminder. The higher rate of reminder receipt among health care workers, in turn, reflects a higher propensity of reminder use among their employers.

Health care providers and health plans appear to target patients at risk for influenza-related complications (50 years and older and the presence of high-risk health conditions). The targeting of high-risk subpopulations, however, does not translate into a higher overall rate of reminder receipt among those groups, since high-risk individuals are less likely to receive a vaccination reminder from their employer.

Comment. Only approximately 1 in 4 US adults reported receipt of a vaccination reminder during the 2008-2009 vaccination season, despite their well-documented effectiveness in improving immunization rates. Thus, our results highlight the large potential of more widespread use of vaccination reminders to increase influenza vaccine uptake. Moreover, the relatively low share of adults receiving vaccination reminders from health care providers and the limited variation of reminder receipt by health risk factors suggest that primary care providers could make better use of patients’ medical records in order to effectively target influenza immunizations according to need.

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Author Contributions: Study concept and design: Maurer and Harris. Acquisition of data: Maurer and Harris. Analysis and interpretation of data: Maurer and Harris. Drafting of the manuscript: Maurer and Harris. Critical revision of the manuscript for important intellectual content: Maurer and Harris. Statistical analysis: Maurer. Obtained funding: Harris. Administrative, technical, and material support: Maurer. Study supervision: Harris.
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### Table. Estimated Receipt of a Reminder to Be Vaccinated Against Seasonal Influenza Among US Adults During the Fall of 2008

<table>
<thead>
<tr>
<th>Overall assessment</th>
<th>Any Reminder</th>
<th>Health Care Provider</th>
<th>Health Insurance or Health Plan</th>
<th>Health Department</th>
<th>Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>All adults</td>
<td>23.2 (20.9-25.5)</td>
<td>8.4 (6.9-9.8)</td>
<td>6.3 (5.2-7.5)</td>
<td>1.8 (1.1-2.6)</td>
<td>10.3 (8.5-12.1)</td>
</tr>
<tr>
<td>% Of adult population (95% CI)</td>
<td>24.4 (19.4-29.4)</td>
<td>10.1 (6.8-13.4)</td>
<td>6.2 (3.9-8.5)</td>
<td>1.3 (0.6-2.1)</td>
<td>9.1 (5.3-12.9)</td>
</tr>
<tr>
<td>Any recommended group</td>
<td>24.3 (21.8-26.8)</td>
<td>9.7 (8.0-11.4)</td>
<td>7.3 (6.0-8.6)</td>
<td>2.2 (1.2-3.1)</td>
<td>9.0 (7.2-10.8)</td>
</tr>
<tr>
<td>% Of subpopulation (95% CI)</td>
<td>26.8 (22.7-30.9)</td>
<td>13.1 (10.1-16.1)</td>
<td>9.0 (6.8-11.1)</td>
<td>2.9 (0.9-4.9)</td>
<td>6.6 (4.1-9.2)</td>
</tr>
<tr>
<td>Age ≥50 y</td>
<td>22.9 (20.4-25.3)</td>
<td>10.4 (8.7-12.2)</td>
<td>8.7 (7.1-10.3)</td>
<td>1.8 (1.0-2.5)</td>
<td>6.1 (4.6-7.5)</td>
</tr>
<tr>
<td>% Of subpopulation (95% CI)</td>
<td>36.8 (32.1-41.6)</td>
<td>6.7 (3.7-9.7)</td>
<td>5.3 (3.7-7.0)</td>
<td>3.6 (0.2-7.0)</td>
<td>28.2 (24.0-32.3)</td>
</tr>
<tr>
<td>High-risk health condition</td>
<td>24.3 (21.8-26.8)</td>
<td>9.7 (8.0-11.4)</td>
<td>7.3 (6.0-8.6)</td>
<td>2.2 (1.2-3.1)</td>
<td>9.0 (7.2-10.8)</td>
</tr>
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<td>9.0 (6.8-11.1)</td>
<td>2.9 (0.9-4.9)</td>
<td>6.6 (4.1-9.2)</td>
</tr>
<tr>
<td>Health care worker</td>
<td>24.3 (21.8-26.8)</td>
<td>9.7 (8.0-11.4)</td>
<td>7.3 (6.0-8.6)</td>
<td>2.2 (1.2-3.1)</td>
<td>9.0 (7.2-10.8)</td>
</tr>
<tr>
<td>% Of subpopulation (95% CI)</td>
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<td>2.9 (0.9-4.9)</td>
<td>6.6 (4.1-9.2)</td>
</tr>
<tr>
<td>Informal caregiver</td>
<td>24.3 (21.8-26.8)</td>
<td>9.7 (8.0-11.4)</td>
<td>7.3 (6.0-8.6)</td>
<td>2.2 (1.2-3.1)</td>
<td>9.0 (7.2-10.8)</td>
</tr>
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<td>2.9 (0.9-4.9)</td>
<td>6.6 (4.1-9.2)</td>
</tr>
<tr>
<td>Unweighted Sample Size, No.</td>
<td>5105</td>
<td>4632</td>
<td>3363</td>
<td>1673</td>
<td>1631</td>
</tr>
</tbody>
</table>

Abbreviation: CI, confidence interval.

a US adults 18 years and older. All estimates are weighted to be nationally representative using data from the US Census Bureau.
COMMENTS AND OPINIONS

Improving Health Care Provider Notification in an Academic Setting: A Cascading System of Alerts

We applaud Singh and colleagues1 for their study “Timely Follow-up of Abnormal Diagnostic Tests Results in an Outpatient Setting: Are Electronic Medical Records Achieving Their Potential?” Like the authors, we also work at a tertiary Department of Veterans Affairs medical center with the same electronic medical record system and are affiliated with a large academic residency program. The issue of timely follow-up of abnormal test results has been of major concern at our facility, especially by house officers, who spend various amounts of time at our hospital. Frequently, the house officer who places an order is not stationed at our hospital when the results become available. To address this problem, we have developed a cascading system of notifications to improve the timeliness of health care provider notification.2 All residents are now assigned an attending surrogate who becomes the recipient of electronic test results that have not been acknowledged by the ordering resident in a timely manner. The surrogate is more aptly able to arrange necessary follow-up of test results and notifies the resident accordingly. If a surrogate becomes unavailable, the results can be forwarded to a higher-level supervisor for acknowledgment, generating a system of cascading notifications. Based on the type of result, we have designated limits to how long a test result can remain unacknowledged before being forwarded to the surrogate. Noncritical laboratory values are forwarded if unprocessed in 72 hours. It is important to emphasize that critical values are handled in a different manner. Although an electronic alert is sent, critical values are also called by the laboratory directly to a physician with verbal confirmation of the abnormality (with a “write down/read back policy”). Although this cascade system does not entirely eliminate the problem of timely follow-up, it has markedly improved the process since its inception.

In the current health care system, improving information management is only beginning to emerge as a priority. The problems related to follow-up will require a culture change within the medical profession to recognize that the appropriate and timely relay of information is intrinsic to providing quality care.

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Comanagement of Elderly Patients Admitted to a Hospital for Hip Fracture

We read with great interest the article on the impact of comanagement of elderly patients admitted to a hospital for hip fracture.1 In support of the results, we would like to stress the importance that the geriatric assessment likely played in the success of the geriatric fracture center.

The geriatric assessment focuses on mental status and function. Both are independent predictors of poor outcomes: cognition and disability predict delirium; disability predicts in-hospital infections. When a multifunctional team is engaged in a shared enterprise such as providing care for an elderly person in a hospital, having a shared representation may help to facilitate interdisciplinary communication and the consequent definition of common goals.

Hip fracture is a major event in people’s lives, as it represents the change from ability to disability. Family members who are involved may feel vulnerable, distressed, and fearful; although they want to help, they may not be able to interpret what is going on for the patients and may not be able to arrange for the delivery of the best care at home after hospital discharge.

Assessment has become a central tool in the care of older persons. Indeed, at any age and in a variety of contexts (medical and social services), systematic assessment should be preferred over haphazard practice.2

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