Thus, although the free flow of information is touted as a means of promoting patient autonomy, the crowded landscape of biased health care information on the Internet creates an environment in which it may be more difficult for patients to make informed health care decisions. An important first step toward ameliorating these risks would be to clearly label hospital websites in a manner that allows patients to identify them as advertisements. More resources are needed to create, and direct patients to, balanced online informational tools. Clinicians should ask patients what they have learned from online medical searches and assist them in forming a complete picture of the risks and benefits of treatment options. Finally, we must focus future attention not only on the content of health care advertising but on its impact. The risk that imbalanced information on US hospital websites may negatively impact patient decision making should be an area of close scrutiny and may provide support for stricter advertising regulations.

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The Epidemiologic Data on Falls, 1998-2010: More Older Americans Report Falling

Falling is the most frequent cause of injury in older adults in the United States, leading to substantial disability and mortality. A variety of studies have found that approximately one-third of older adults fall each year, but there have been no nationally representative longitudinal studies that examine falling across the population over time.3-7 Falling is anticipated to increase in the United States owing to changing demography. However, a prior statewide study showed a temporal increase (1999-2001) in the annual rate of falls requiring medical care, independent of age.2 We investigated temporal trends in falling on a national scale from 1998 to 2010, hypothesizing that any increase in prevalence would be due to changes in the age structure of the population.

Methods | We used data from 7 biennial waves (1998-2010) of the Health and Retirement Study, a nationally representative longitudinal health interview survey of a cohort of middle-aged and older adults in the United States.3-4 The Health and Retirement Study is sponsored by the National Institute on Aging, is performed by the Institute for Social Research (University of Michigan), and was approved by the University of Michigan Health Sciences Institutional Review Board. The practice of the Health and Retirement Study (for both telephone and in-person interviews) is for respondents to be read a confidentiality statement when first contacted; respondents provide oral or implied consent by agreeing to the interview. The study sample for each wave included all adults 65 years or older (≥10 590 for each wave).

We defined falling as at least 1 self-reported fall in the preceding 2 years. We also examined fall frequency and fall injuries. Covariates included sociodemographic characteristics (eg, age, sex, race and ethnicity, marital status, educational level), chronic diseases (eg, hypertension, heart disease, chronic lung disease, diabetes mellitus, musculoskeletal conditions, stroke), other geriatric conditions (eg, dementia, urinary incontinence, vision impairment, hearing impairment), and body mass index.2 We also investigated the effect of participation in prior interview waves on the self-report of falls. We used age-stratified cross-sectional and longitudinal logistic analyses to investigate falling across interview waves.

Results | Among all adults 65 years or older, the 2-year prevalence of self-reported falls increased from 28.2% in 1998 to 36.3% in 2010 (Figure). Stratifying by age, fall prevalence increased for adults aged 65 to 89 years (Table) and was most marked at the younger end of the age range (analysis of 1-year
age cohorts). Using unadjusted age-stratified logistic models across all 7 waves, linear time predicted increased fall prevalence for all but 4 ages from 65 to 88 years. In fully adjusted models, linear time predicted increased fall prevalence for all but 6 ages from 65 to 82 years (P < .05); prevalence differences were smaller or nonexistent for older ages in fully adjusted models, and therefore no longer statistically significant. We could not find any significant effects for disease-by-time interaction (eg, diabetes with time), suggesting that the increase in fall prevalence is always observed, regardless of the presence of disease. The increased self-report of falls across interview waves was not associated with respondents’ participation in the immediately preceding interview wave; the increase was likewise not associated with the total number of preceding interviews in which respondents participated. There was no increase in disability across interview waves, and the increased self-report of falls was found with older adults with and without a disability. There was no concomitant increase in the prevalence of injury from falls at the population level or with age stratification.

Discussion | Contrary to our hypothesis, we observed an increase in fall prevalence among older adults that exceeds what would be expected owing to the increasing age of the population. Programs such as Matter of Balance focus on making older adults aware of balance and fall risk and provide strategies to reduce fall risk; these programs may improve reporting. Alternatively, if a true increase in falling is occurring, then further research is needed to identify possible reasons, such as an increase in fall risk factors (eg, cardiovascular and psychiatric medications) or an increase in fall risk behavior.

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Author Contributions: Drs Cigolle and Ha had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design. Cigolle, Min, Lee, Gure, Alexander, Blaum. Acquisition, analysis, or interpretation of data. Cigolle, Ha. Drafting of the manuscript. Cigolle, Min, Alexander. Critical revision of the manuscript for important intellectual content: Cigolle, Ha, Min, Lee, Gure, Blaum. Statistical analysis: Cigolle, Ha, Min. Obtained funding: Cigolle, Gure. Administrative, technical, or material support: Cigolle, Lee, Alexander. Study supervision: Cigolle, Blaum.

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Table.

<table>
<thead>
<tr>
<th>Age at Interview, y</th>
<th>2-Year Prevalence of at Least 1 Fall, %*</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-69</td>
<td>22.3</td>
<td>.01</td>
</tr>
<tr>
<td>70-74</td>
<td>25.6</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>75-79</td>
<td>30.5</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>80-84</td>
<td>37.6</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>85-89</td>
<td>45.8</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>≥90</td>
<td>55.8</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

* Weighted percentages were derived using Health and Retirement Study respondent population weights to adjust for differential probability of selection into the sample and differential nonresponse.
HEALTH CARE REFORM

Effect of Public Disclosure on Antibiotic Prescription Rate for Upper Respiratory Tract Infections

Although antibiotics are not required for treating uncomplicated upper respiratory tract infection (URTI), which is mostly viral, they are often prescribed, fueling antibiotic resistance and loss of protective flora. Accordingly, many studies worldwide have tried to decrease inappropriate antibiotic prescribing behavior.2

In South Korea, where the National Health Insurance provides universal coverage, the Health Insurance Review & Assessment Service (HIRA) oversees claims reviews, quality assessment, and benefits and coverage standards. Since 2001, HIRA has used claims data to assess the appropriateness of care based on various quality indicators, including the antibiotic

<table>
<thead>
<tr>
<th>Hospital Type</th>
<th>Visits for URTI, No.</th>
<th>Antibiotic Prescription Rate [A], % (95% CI)</th>
<th>Visits for URTI, No.</th>
<th>Antibiotic Prescription Rate [B], % (95% CI)</th>
<th>Difference in Rate (A − B), % (95% CI)</th>
<th>Ratio of Rate (B:A) (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4,651,905</td>
<td>58.8 (58.7-58.8)</td>
<td>7,013,624</td>
<td>53.0 (53.0-53.1)</td>
<td>5.7 (5.7-5.8)c</td>
<td>0.90 (0.90-0.90)d</td>
</tr>
<tr>
<td>Primary clinic</td>
<td>4,495,231</td>
<td>58.9 (58.9-58.9)</td>
<td>6,668,069</td>
<td>53.3 (53.3-53.4)</td>
<td>5.6 (5.5-5.6)c</td>
<td>0.91 (0.90-0.91)d</td>
</tr>
<tr>
<td>Secondary care hospital</td>
<td>87,559</td>
<td>54.6 (54.3-54.9)</td>
<td>215,387</td>
<td>46.6 (46.4-46.8)</td>
<td>8.0 (7.7-8.4)c</td>
<td>0.85 (0.85-0.86)d</td>
</tr>
<tr>
<td>Tertiary care hospital</td>
<td>69,115</td>
<td>56.2 (55.8-56.6)</td>
<td>130,168</td>
<td>49.7 (49.4-49.9)</td>
<td>6.5 (5.2-5.2)c</td>
<td>0.88 (0.88-0.89)d</td>
</tr>
</tbody>
</table>

Abbreviation: URTI, upper respiratory tract infection.

b February 1, 2006, through December 31, 2010.
c P < .001, t test.
d P < .001, χ² test.

Figure. Segmented Linear Regression of the Rate of Antibiotic Prescriptions and Predicted Rate of Antibiotic Prescriptions With ARIMA Model

A, Segmented linear regression is shown. B, Autoregressive integrated moving average (ARIMA) model: 
(p, d, q) = (2, 0, 0); seasonal components, (p, d, q, s) = (1, 0, 0, 12). Vertical line indicates February 2006; dots, observed rates; solid line and curve, predicted rates; dashed line (A), trend of rates; dotted curves (B), 95% CIs of predicted rates.