Mapping Gender Gaps in Health Care

While cholesterol screening may be as familiar to many Americans as getting their pulse checked or their temperature taken, recent RAND research that mapped regional rates of this important annual test among patients with cardiovascular disease and diabetes reveals that there are often significant gaps in how often women, as opposed to men, get these tests when they are indicated.

By creating visual displays based on data supplied by a leading California health care plan, it is possible to see these gender-based disparities more vividly and see how they vary geographically. The gaps where men are more likely than women to receive the annual low-density lipoprotein (LDL) cholesterol screening—when both have cardiovascular disease or diabetes—are more pronounced at the county level than across larger regions within the state.

The RAND research team’s mapping of care is something not typically done to compare men’s and women’s quality of care. Figure 1 shows, based on LDL cholesterol screening rates, that cardiovascular care was better for men in seven of eight regions.

Figure 1. Gender Disparities in Cardiovascular Care in California Based on LDL Cholesterol Screening Rates

NOTE: We consider gender differences in LDL cholesterol testing rates of 10 or more percentage points as a large gap, 5 to less than 10 percentage points a moderate gap, 1 to less than 5 percentage points as a small gap, and less than 1 percentage point as no gap.
For diabetes, which does not have a history as a disease primarily affecting men, the gaps in care were smaller but still favored men in five of eight regions (Figure 2).

Differences in whether women versus men receive cholesterol tests raise larger, important questions about gender inequity in quality and outcomes of health care, particularly for cardiovascular disease. Cardiovascular disease is the leading cause of death in women: 1 in 3 adult women are afflicted with it, and 1 in 3 women die because of it. Diabetes, which takes its own considerable toll on the health of men and women, is also a major cardiovascular disease risk factor that increases risk among women more than men.

Because far more people have diabetes than cardiovascular disease, the smaller gender gap in cholesterol screening among adults with diabetes still results in more women not receiving indicated care than among adults with cardiovascular disease, where the gender gap is larger.

**Pronounced Gender Gaps**

At the county level, visual displays show the gender gaps in the most pronounced fashion (Figure 3). For cardiovascular disease, the maps show the following disparities:

- In 79 percent of counties, care favored men; 35 percent had moderate to large gaps favoring men.

---

**Figure 2. Gender Disparities in Diabetes Management in California Based on LDL Cholesterol Screening Rates**

<table>
<thead>
<tr>
<th>County</th>
<th>Screening rates</th>
<th>Difference in rates (M – W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento/North</td>
<td>Greater than 80%</td>
<td>No gap (M = W)</td>
</tr>
<tr>
<td>Inland Empire</td>
<td>78% to 80%</td>
<td>Small gap favoring men (M &gt; W)</td>
</tr>
<tr>
<td>Central Valley</td>
<td>76% to 78%</td>
<td>Less than 70%</td>
</tr>
<tr>
<td>Central Coast</td>
<td>74% to 76%</td>
<td></td>
</tr>
<tr>
<td>Los Angeles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Diego</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay Area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** We consider gender differences in LDL cholesterol testing rates of 10 or more percentage points as a large gap, 5 to less than 10 percentage points a moderate gap, 1 to less than 5 percentage points as a small gap, and less than 1 percentage point as no gap.
There were no moderate to large gaps favoring women, and only 12 percent of the counties had small gaps favoring women.

For diabetes, the following disparities are seen:
- 57 percent of the counties had gaps favoring men, and 18 percent had gaps favoring women.
- 17 percent had moderate gaps favoring men, and 6 percent had moderate or large gaps favoring women.

The extent of local variation in care for men versus women is clearest when similar maps are prepared for densely populated areas where the majority of zip codes have sufficient cases to estimate gender gaps.

**Insurance and Gender Gaps**

Figure 4 shows how gender gaps differ by insurance type. The size and pattern of gender gaps varied depending on the type of insurance. For example, on average, there were no significant gender gaps found in LDL cholesterol testing for patients with either cardiovascular disease or diabetes among those with commercial health maintenance organization (HMO) insurance. However, gender gaps were present for commercial preferred provider organization (PPO) populations. The gender differences among adults in commercial PPO plans remained even after taking into account other factors, such as age, region, and area income. Overall, rates of LDL testing were higher among those with commercial HMO insurance than among those with commercial PPO insurance.
Next Steps
More gender-related health and health care data could be collected, analyzed, and reported within and across provider groups and health plans to identify the size and location of gender gaps. Making the findings accessible and widely available by mapping the gaps can help guide health care decisionmakers and local stakeholders in their efforts to improve quality. All California health care plans and provider groups may wish to consider assessing and reporting gender differences in quality of care for cardiovascular disease and diabetes and using mapping to make the information both visible and actionable.

Key Findings
- Men had higher rates of LDL cholesterol screening than did women in both the cardiovascular disease and diabetes populations. These gaps varied by age and insurance type.
- Mapping gender gaps revealed larger gaps at local levels than were apparent at the state or regional level.
- Gender-stratified reporting and mapping can make disparities in care actionable.
The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from www.rand.org as a public service of the RAND Corporation.

Support RAND
Browse Reports & Bookstore
Make a charitable contribution

For More Information
Visit RAND at www.rand.org
Explore the RAND Corporation
View document details

Research Brief
This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

Limited Electronic Distribution Rights
This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see RAND Permissions.