How Can Providers Make Genomic Medicine More Accessible?

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• What role can large employers play in efforts to address health disparities and improve access to care ...(both in the context of genomics and in general)?
Health care use and spending vary in employer-sponsored plans

- Health care use and spending by wage category during 2014 among employees of four self-insured employers (n=42,936)

- Total health care spending highest among the lowest and highest wage earners relative to middle wage groups, but the distribution of spending not the same.

- Lowest wage group compared to top wage earners...

- Half the usage of preventive care (19% vs. 38%)
- Twice the hospital admission rate (31/1000 vs. 17/1000)
- Four times the rate of avoidable admissions (4.3/1000 vs. 0.9/1000)
- Three times the rate of ED visits (370/1000 vs. 120/1000)

*Sherman BW, et al, Health Affairs 2017*
### Healthcare costs for U-M full-time employees by income (2017)

<table>
<thead>
<tr>
<th></th>
<th>&lt;$35,000/yr</th>
<th>&gt;$35,000/yr</th>
<th>∆</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>3975</td>
<td>34,258</td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>7697</td>
<td>74,188</td>
<td></td>
</tr>
<tr>
<td>Mean contract size</td>
<td>1.94</td>
<td>2.17</td>
<td></td>
</tr>
<tr>
<td><strong>Costs per member</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net medical payments</td>
<td>$4230</td>
<td>$4075</td>
<td>+4%</td>
</tr>
<tr>
<td>Net pharmacy payments</td>
<td>$885</td>
<td>$920</td>
<td>-4%</td>
</tr>
<tr>
<td>Net total payments</td>
<td>$5115</td>
<td>$4945</td>
<td>+3%</td>
</tr>
</tbody>
</table>

*unadjusted values

*Courtesy of K. Jenkins and J. Ayanian*
## Healthcare costs for U-M full-time employees by income (2017)

<table>
<thead>
<tr>
<th>Rates per 1000 members*</th>
<th>&lt;$35,000/yr</th>
<th>&gt;$35,000/y</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive visits</td>
<td>568</td>
<td>678</td>
<td>-16%</td>
</tr>
<tr>
<td>Other visits</td>
<td>3240</td>
<td>3117</td>
<td>+4%</td>
</tr>
<tr>
<td>Mental health/substance visits</td>
<td>1341</td>
<td>1731</td>
<td>-23%</td>
</tr>
<tr>
<td>Emergency department visits</td>
<td>338</td>
<td>190</td>
<td>+78%</td>
</tr>
<tr>
<td>Inpatient admissions</td>
<td>71</td>
<td>59</td>
<td>+20%</td>
</tr>
<tr>
<td>Inpatient days</td>
<td>260</td>
<td>217</td>
<td>+20%</td>
</tr>
</tbody>
</table>

*unadjusted rates

*Courtesy of K. Jenkins and J. Ayanian*
Summary of Healthcare Costs & Use by Employees’ Income

1) Lower & higher-income workers have similar total health care spending

2) Lower-income workers use fewer preventive services & visits

3) Lower-income workers use fewer mental health / substance use visits

4) Lower-income workers use substantially more emergency department visits

5) Lower-income workers use more inpatient services

Courtesy of K. Jenkins and J. Ayanian
• Can thoughtful benefit design help address access and equity?

• A recent example from the University of Michigan...
Predicted Egg Retrievals
(rate per 10,000 women ages 22-46)

Courtesy of James Dupree et al
Egg Retrievals by Employee Salary Band
(rate per 10,000 women)

Egg retrievals per 10,000 women

Low salary  |  Middle salary  |  High salary

Pre-policy  |  15-fold  |  2-fold  |  3-fold

p < 0.01  |  p < 0.01  |  p < 0.01

13-fold  |  2-fold  |  3-fold

Mean

Courtesy of James Dupree et al
Distribution of IVF use now approaches distribution of employee premiums…

Share of IVF by premium group

Pre-policy (2012-2014)
- High premium: 65%
- Middle premium: 28%
- Low premium: 6%

Post-policy (2015-2016)
- High premium: 51%
- Middle premium: 20%
- Low premium: 30%

Distribution of UM employee population by premium group

- UM employee population: 50%
- High premium: 25%
- Middle premium: 25%
- Low premium: 25%

NOTE: Only includes women with premium data (i.e., primary subscribers)

Courtesy of James Dupree et al