**eAppendix Table 1. Respondent Characteristics**

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
<th>Percent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many physicians are in your practice/facility (answered by non-pharmacists)</td>
<td>1</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td>2-5</td>
<td>35.6</td>
</tr>
<tr>
<td></td>
<td>6-12</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>13 or more</td>
<td>28.9</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>3.9</td>
</tr>
<tr>
<td>How many prescriptions does your organization fill annually? (answered by pharmacists)</td>
<td>&lt;25,000</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>25,001 – 100,000</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>100,001 – 250,000</td>
<td>24.1</td>
</tr>
<tr>
<td></td>
<td>&gt;250,000</td>
<td>20.7</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>20.7</td>
</tr>
<tr>
<td>Estimate the percentage of your patients/clients with each type of insurance</td>
<td>Medicare 0%</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>1-25%</td>
<td>48.9</td>
</tr>
<tr>
<td></td>
<td>26-50%</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>51-100%</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Medicaid 0%</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>1-25%</td>
<td>47.4</td>
</tr>
<tr>
<td></td>
<td>26-50%</td>
<td>34.1</td>
</tr>
<tr>
<td></td>
<td>51-100%</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Private 0%</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>1-25%</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>26-50%</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>51-100%</td>
<td>31.1</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Uninsured 0%</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>1-25%</td>
<td>63.0</td>
</tr>
<tr>
<td></td>
<td>26-50%</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>51-100%</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>10.4</td>
</tr>
<tr>
<td>Question</td>
<td>Category</td>
<td>Percent*</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Estimate what percentage of your patients/clients are in the following age groups:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>age 0-18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td>5.2</td>
</tr>
<tr>
<td>1-25%</td>
<td></td>
<td>76.9</td>
</tr>
<tr>
<td>26-50%</td>
<td></td>
<td>10.5</td>
</tr>
<tr>
<td>51-100%</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>Unsure</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>age 19-64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>1-25%</td>
<td></td>
<td>6.7</td>
</tr>
<tr>
<td>26-50%</td>
<td></td>
<td>47.8</td>
</tr>
<tr>
<td>51-100%</td>
<td></td>
<td>40.3</td>
</tr>
<tr>
<td>Unsure</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>age 65 or older</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td>5.2</td>
</tr>
<tr>
<td>1-25%</td>
<td></td>
<td>28.4</td>
</tr>
<tr>
<td>26-50%</td>
<td></td>
<td>38.1</td>
</tr>
<tr>
<td>51-100%</td>
<td></td>
<td>23.9</td>
</tr>
<tr>
<td>Unsure</td>
<td></td>
<td>4.5</td>
</tr>
<tr>
<td>What is your age?</td>
<td>18-29</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>28.4</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>22.4</td>
</tr>
<tr>
<td></td>
<td>50-69</td>
<td>26.1</td>
</tr>
<tr>
<td></td>
<td>60+</td>
<td>17.9</td>
</tr>
</tbody>
</table>

*Percentages may not sum to 100% due to rounding.
### Table 2: Regression Analysis of Factors Relating to Vaccine Stocking

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef.</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of purchasing medicine</td>
<td>-0.189</td>
<td>-0.936</td>
<td>0.839</td>
</tr>
<tr>
<td>Tetanus</td>
<td>-0.676</td>
<td>-0.680</td>
<td>0.678</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>-0.556</td>
<td>-0.626</td>
<td>0.554</td>
</tr>
<tr>
<td>PCV 13</td>
<td>-0.303</td>
<td>-0.329</td>
<td>0.329</td>
</tr>
<tr>
<td>Overall</td>
<td>0.592</td>
<td>0.793</td>
<td>0.0679</td>
</tr>
</tbody>
</table>

**Note:** Coef. and 95% CI values are presented for each predictor, with P-values indicating significance.
**eAppendix Table 3. Cross-Tabulation of Role and Percentage of Patients over Age 65**

<table>
<thead>
<tr>
<th>What is your role within your organization?</th>
<th>0%</th>
<th>1%-25%</th>
<th>26%-50%</th>
<th>51%-100%</th>
<th>Unsure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>4.3%</td>
<td>37.1%</td>
<td>37.1%</td>
<td>20%</td>
<td>1.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Practice Manager</td>
<td>0%</td>
<td>50%</td>
<td>33.3%</td>
<td>16.7%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Health System Administrator</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Nurse</td>
<td>20%</td>
<td>6.7%</td>
<td>46.7%</td>
<td>26.7%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>4.2%</td>
<td>20.8%</td>
<td>41.7%</td>
<td>29.2%</td>
<td>4.2%</td>
<td>100%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5.6%</strong></td>
<td><strong>28.8%</strong></td>
<td><strong>39.2%</strong></td>
<td><strong>24.8%</strong></td>
<td><strong>1.6%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
eAppendix Figure 1. Reasons for not stocking specific vaccines

(a) Influenza (N=4)
- Not a priority for our practice/organization: 75%
- Challenging to keep up with changes to recommendations for this vaccine: 25%
- Not enough time in visit to administer vaccine: 0%
- Payment is insufficient and difficult to get: 0%
- Vaccine is too costly/purchase & inventory management costs: 0%
- High out of pocket costs for patients: 0%
- Other: 0%

(b) Pneumococcal (PCV13) (N=46)
- Not a priority for our practice/organization: 54%
- Challenging to keep up with changes to recommendations for this vaccine: 22%
- Not enough time in visit to administer vaccine: 4%
- Payment is insufficient and difficult to get: 13%
- Vaccine is too costly/purchase & inventory management costs: 15%
- High out of pocket costs for patients: 11%
- Other: 9%

(c) Pneumococcal (PPSV23) (N=35)
- Not a priority for our practice/organization: 71%
- Challenging to keep up with changes to recommendations for this vaccine: 17%
- Not enough time in visit to administer vaccine: 11%
- Payment is insufficient and difficult to get: 9%
- Vaccine is too costly/purchase & inventory management costs: 14%
- High out of pocket costs for patients: 6%
- Other: 9%

(d) Tdap (N=20)
- Not a priority for our practice/organization: 65%
- Challenging to keep up with changes to recommendations for this vaccine: 15%
- Not enough time in visit to administer vaccine: 5%
- Payment is insufficient and difficult to get: 15%
- Vaccine is too costly/purchase & inventory management costs: 10%
- High out of pocket costs for patients: 5%
- Other: 10%
High out of pocket costs for patients
Vaccine is too costly/purchase & inventory management costs
Payment is insufficient and difficult to get
Not enough time in visit to administer vaccine
Challenging to keep up with changes to recommendations for this vaccine
Not a priority for our practice/organization
Other

(e) Td (N=52)

(f) Zoster (N=51)

(g) Hepatitis A (N=54)

(h) Hepatitis B (N=41)
(i) Hepatitis A and B (N=61)

- Not a priority for our practice/organization: 69%
- Challenging to keep up with changes to recommendations for this vaccine: 13%
- Not enough time in visit to administer vaccine: 8%
- Payment is insufficient and difficult to get: 8%
- Vaccine is too costly/purchase & inventory management costs: 19%
- High out of pocket costs for patients: 6%
- Other: 8%

(j) Meningococcal ACWY (N=64)

- Not a priority for our practice/organization: 72%
- Challenging to keep up with changes to recommendations for this vaccine: 15%
- Not enough time in visit to administer vaccine: 5%
- Payment is insufficient and difficult to get: 10%
- Vaccine is too costly/purchase & inventory management costs: 16%
- High out of pocket costs for patients: 7%
- Other: 10%

(k) Meningococcal B (N=72)

- Not a priority for our practice/organization: 74%
- Challenging to keep up with changes to recommendations for this vaccine: 11%
- Not enough time in visit to administer vaccine: 6%
- Payment is insufficient and difficult to get: 7%
- Vaccine is too costly/purchase & inventory management costs: 13%
- High out of pocket costs for patients: 10%
- Other: 8%
eAppendix Figure 2. Best-worst scaling of barriers by respondent characteristics

(a) Directly Involved in Stocking (N=60)

(b) Indirectly Involved in Stocking Decisions (N=65)
(c) Role: Physicians (N=70)

- Least important
- Most important

- Cost of purchasing
- Expense of maintaining inventory
- Inadequate reimbursement
- Inconsistent patient insurance coverage
- Time interacting with insurance
- Prior authorization
- Vaccine claims rejections
- Patient attitudes toward vaccination
- Patient out-of-pocket costs
- Expired vaccine losses
- Out-of-network
- Time for patient assessment
- Rewards for meeting targets
- Little patient demand
- Difficulty interpreting guidelines
- Number of competitors

(d) Role: Pharmacists (N=24)

- Least important
- Most important

- Cost of purchasing
- Expense of maintaining inventory
- Inadequate reimbursement
- Vaccine claims rejections
- Little patient demand
- Patient attitudes toward vaccination
- Out-of-network
- Patient out-of-pocket costs
- Inconsistent patient insurance coverage
- Time interacting with insurance
- Rewards for meeting targets
- Time for patient assessment
- Expired vaccine losses
- Difficulty interpreting guidelines
- Prior authorization
- Number of competitors

(e) Role: Nurses (N=15)

- Least important
- Most important

- Cost of purchasing
- Expense of maintaining inventory
- Inadequate reimbursement
- Inconsistent patient insurance coverage
- Time interacting with insurance
- Prior authorization
- Vaccine claims rejections
- Patient attitudes toward vaccination
- Patient out-of-pocket costs
- Expired vaccine losses
- Out-of-network
- Time for patient assessment
- Rewards for meeting targets
- Little patient demand
- Difficulty interpreting guidelines
- Number of competitors

(f) Role: Manager/Administrator/Other (N=16)

- Least important
- Most important

- Cost of purchasing
- Expense of maintaining inventory
- Inadequate reimbursement
- Vaccine claims rejections
- Little patient demand
- Patient attitudes toward vaccination
- Out-of-network
- Patient out-of-pocket costs
- Inconsistent patient insurance coverage
- Time interacting with insurance
- Rewards for meeting targets
- Time for patient assessment
- Expired vaccine losses
- Difficulty interpreting guidelines
- Prior authorization
- Number of competitors
(w) Patient Age Distribution: 0-50% age 65+ (N=92)

(x) Patient Age Distribution: >50% age 65+ (N=31)
**eAppendix Figure 3. Best-worst scaling of barriers based on stocking specific vaccines**

(a) Stocked influenza (N=113)

(b) Did not stock influenza (N=4)

(c) Stocked PCV13 (N=71)

(d) Did not stock PCV13 (N=46)
(q) Stocked hepatitis A and B (N=56)

(r) Did not stock hepatitis A and B (N=61)

(s) Stocked meningococcal ACWY (N=53)

(t) Did not stock meningococcal ACWY (N=64)
(u) Stocked meningococcal B (N=45)

- Cost of purchasing
- Expense of maintaining inventory
- Inadequate reimbursement
- Inconsistent patient insurance coverage
- Expired vaccine losses
- Vaccine claims rejections
- Out-of-network
- Patient out-of-pocket costs
- Time for patient assessment
- Prior authorization
- Patient attitudes toward vaccination
- Rewards for meeting targets
- Time interacting with insurance
- Difficulty interpreting guidelines
- Little patient demand
- Number of competitors

(v) Did not stock meningococcal B (N=72)

- Cost of purchasing
- Expense of maintaining inventory
- Inadequate reimbursement
- Time interacting with insurance
- Inconsistent patient insurance coverage
- Patient attitudes toward vaccination
- Vaccine claims rejections
- Prior authorization
- Patient out-of-pocket costs
- Little patient demand
- Expired vaccine losses
- Out-of-network
- Time for patient assessment
- Rewards for meeting targets
- Difficulty interpreting guidelines
- Number of competitors