In 2008, the Centers for Disease Control and Prevention Advisory Committee on Immunization Practices recommended that all children 6 months to 18 years of age receive annual vaccination against influenza each year as vaccines become available.

- Recommendations included healthy children 6 to 23 months of age in whom to deliver influenza vaccine each year, efficient delivery of influenza vaccines by office-based providers is critical.
- The majority of influenza vaccinations administered to US children are given by office-based pediatricians.*
- To our knowledge, no evaluations of the characteristics and activities that correlate with influenza vaccination coverage in US pediatric offices have been performed over multiple seasons with the same methodology.

Objective

To evaluate characteristics and activities that correlate with influenza vaccination coverage in US pediatric offices over multiple influenza seasons.

Methods

- A multiyear, observational study of US outpatient pediatric offices prospectively captured influenza vaccinations by age group and activities to increase vaccine uptake during the 2007-2008 through 2010-2011 influenza seasons.
- Offices were recruited from a random sample of the American Academy of Pediatrics’ list of pediatricians.
- Vaccination coverage was calculated as the number of children vaccinated with ≥1 dose divided by the total number of children under the office’s care.
- Offices with unbalanced vaccination rates of >100% in any age group were excluded from the analysis.
- For each season, office characteristics that were correlated with office-level coverage were evaluated qualitatively and with regression analyses.

Results

- Offices were self-recruited from a random sample of the American Academy of Pediatrics’ list of pediatricians.
- Vaccination coverage was calculated as the number of children vaccinated with ≥1 dose divided by the total number of children under the office’s care.
- Offices with unbalanced vaccination rates of >100% in any age group were excluded from the analysis.
- For each season, office characteristics that were correlated with office-level coverage were evaluated qualitatively and with regression analyses.

Table 1. Characteristics of Pediatric Offices and Vaccinated Children

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Pediatric patients per physician, n</td>
<td>115 (112)</td>
<td>117 (112)</td>
<td>119 (112)</td>
<td>119 (112)</td>
</tr>
<tr>
<td>Total patients, n</td>
<td>351 (324)</td>
<td>354 (327)</td>
<td>354 (327)</td>
<td>359 (330)</td>
</tr>
<tr>
<td>Other, mean (range), n</td>
<td>30 (28)</td>
<td>30 (28)</td>
<td>30 (28)</td>
<td>30 (28)</td>
</tr>
<tr>
<td>Physician, n</td>
<td>20 (20)</td>
<td>20 (20)</td>
<td>20 (20)</td>
<td>20 (20)</td>
</tr>
<tr>
<td>Staff, n</td>
<td>20 (20)</td>
<td>20 (20)</td>
<td>20 (20)</td>
<td>20 (20)</td>
</tr>
<tr>
<td>Other, mean (range), n</td>
<td>17 (16)</td>
<td>17 (16)</td>
<td>17 (16)</td>
<td>17 (16)</td>
</tr>
<tr>
<td>Pediatric patients by age group, n</td>
<td>351 (324)</td>
<td>354 (327)</td>
<td>354 (327)</td>
<td>359 (330)</td>
</tr>
<tr>
<td>0–5 y</td>
<td>115 (112)</td>
<td>117 (112)</td>
<td>119 (112)</td>
<td>119 (112)</td>
</tr>
<tr>
<td>6–17 y</td>
<td>237 (218)</td>
<td>244 (221)</td>
<td>243 (221)</td>
<td>249 (228)</td>
</tr>
<tr>
<td>17–18 y</td>
<td>4 (4)</td>
<td>4 (4)</td>
<td>4 (4)</td>
<td>4 (4)</td>
</tr>
<tr>
<td>19–23 y</td>
<td>8 (8)</td>
<td>8 (8)</td>
<td>8 (8)</td>
<td>8 (8)</td>
</tr>
</tbody>
</table>

Conclusions

- Larger offices are more likely to be delivering influenza vaccine to their patients, perhaps because of less inherent “noise” in the influenza vaccination season.
- Larger offices should consider steps to enhance their vaccination efforts to overcome inertia.

References


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*To evaluate characteristics and activities that correlate with influenza vaccination coverage in US pediatric offices over multiple influenza seasons, respectively.

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