Provider Characteristics and Response Rates in the National Immunization Survey

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National Immunization Survey

Data collection conducted quarterly since April 1994.

Sponsored by the National Immunization Program and the National Centers for Health Statistics, both of the Centers for Disease Control and Prevention

National study—data collected in 78 non-overlapping Immunization Action Plan Areas:

• 50 states, 27 metropolitan areas, and the District of Columbia.
National Immunization Survey

Yearly, 10 million telephone calls made to identify households with 35,000 age-eligible children.

Measures vaccination coverage of children between the ages of 19 and 35 months of age.
Provider Record Check Study

Added to the survey in 1995 because household immunization reports are often inaccurate

Obtain name and address of immunization providers, and permission to contact them

Approximately 85% of households give consent to contact providers

Mail survey

Request child’s immunization history from medical provider(s)

Provider data used to calculate estimates of vaccination coverage
Tracking provider response

Mailing more than 30,000 questionnaires each year (Children may have 1+ providers)

Average: 1.5 providers per child

Some providers receive requests for immunization histories for several children in a quarter

Previously, the NIS did not track individual provider cooperation, only the percentage of children with provider data
Questionnaire Response rates

Overall, in the first half of 2002, 76% of questionnaires were returned with immunization information.

13% were not returned

11% were returned, but did not have immunization data
Constructed a provider database in order to analyze provider response patterns.

Hypothesis was that higher provider burden would create greater non-response.

Database would help us identify individual “problem” providers.
Assessing provider burden

17,267 child-provider pairs in the first two quarters of 2002 data collection

Identified 10,100 providers

Average number of questionnaires per provider: 1.7

Range: 1 – 35
## Distribution of Providers and IHQs by # of Children

<table>
<thead>
<tr>
<th>Provider Burden</th>
<th>#Providers</th>
<th>%Providers</th>
<th>#IHQs</th>
<th>%IHQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 child</td>
<td>6,883</td>
<td>68.1%</td>
<td>6,883</td>
<td>39.9%</td>
</tr>
<tr>
<td>2-4 children</td>
<td>2,714</td>
<td>26.9%</td>
<td>6,728</td>
<td>39.0%</td>
</tr>
<tr>
<td>5-7 children</td>
<td>355</td>
<td>3.5%</td>
<td>2,039</td>
<td>11.8%</td>
</tr>
<tr>
<td>8+ children</td>
<td>148</td>
<td>1.5%</td>
<td>1,617</td>
<td>9.4%</td>
</tr>
<tr>
<td>Total</td>
<td>10,100</td>
<td>100.0%</td>
<td>17,267</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Distribution of Children by Provider
(Q1 2002 - Q2 2002, 17,267 attempted mailings to 10,100 unique providers)

- 1 child: 40%
- 2-4 children: 39%
- 5-7 children: 12%
- 8+ children: 9%
Return Types by Number of Children

(Q1 2002 - Q2 2002, 17,267 attempted mailings to 10,100 unique providers)

- One child (6,883 Providers)
- 2-4 children (2,714 Providers)
- 5-7 children (355 Providers)
- 8+ children (148 Providers)

<table>
<thead>
<tr>
<th>Type of Return</th>
<th>% of IHQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned With Data</td>
<td>(overall avg=76.45%)</td>
</tr>
<tr>
<td>Returned With No Data</td>
<td>(overall avg=10.35%)</td>
</tr>
<tr>
<td>Refused/Need Signature</td>
<td>(overall avg=0.13%)</td>
</tr>
<tr>
<td>No Return</td>
<td>(overall avg=13.16%)</td>
</tr>
</tbody>
</table>
Conclusions

Develop strategies to manage by provider, and not just child

Problems are with our smallest and largest providers

Small providers
- Tend to be private or military
- May have institutional barriers to participation

Large providers
- Tend to be public health departments
- Motivated to participate
- Project can facilitate cooperation by responding to individual needs