Tracking Cooperation Levels among Medical Providers 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.

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

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 38,000 questionnaires each year (Children may have 1+ providers)

Average: 1.3 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 2000, 74% of questionnaires were returned with immunization information.

11% were not returned

15% were returned, but did not have immunization data
Looking for patterns of non-response

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

38,569 child-provider pairs in 2000 data collection

Identified 17,795 providers

Average number of questionnaires per provider: 2.2

Range: 1 – 114
### 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>11,080</td>
<td>62.3%</td>
<td>11,080</td>
<td>28.7%</td>
</tr>
<tr>
<td>2-5 children</td>
<td>5,540</td>
<td>31.3%</td>
<td>15,140</td>
<td>39.3%</td>
</tr>
<tr>
<td>6-10 children</td>
<td>822</td>
<td>4.6%</td>
<td>6,077</td>
<td>15.8%</td>
</tr>
<tr>
<td>11-19 children</td>
<td>267</td>
<td>1.5%</td>
<td>3,684</td>
<td>9.6%</td>
</tr>
<tr>
<td>20+ children</td>
<td>86</td>
<td>0.5%</td>
<td>2,588</td>
<td>6.7%</td>
</tr>
<tr>
<td>Total</td>
<td>17,795</td>
<td>100.0%</td>
<td>38,569</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Distribution of Children by Provider
(Q1 2000 - Q4 2000, 38,569 attempted mailings to 17,795 unique providers)

- 2-5 children: 28.73%
- 6-10 children: 39.25%
- 11-19 children: 15.76%
- 20-114 children: 6.71%
- 1 child: 9.55%
Return Types by Number of Children
(Q1 2000 - Q4 2000, 38,569 attempted mailings to 17,795 unique providers)

- Returned With Data (overall avg = 73.90%)
- Return With No data (overall avg = 13.60%)
- Refused/Need Signature (overall avg = 1.51%)
- No Return (overall avg = 10.98%)

- 1 child (11,080 GroupIDs)
- 2 - 5 children (5,540 GroupIDs)
- 6-10 children (822 GroupIDs)
- 11-19 children (267 GroupIDs)
- 20-114 children (35 GroupIDs)
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