## Tracking Cooperation Levels among Medical Providers in the National Immunization Survey.

Kate Ballard-LeFauve, Abt Associates
Martin Barron, Abt Associates
Michael P. Battaglia, Abt Associates
Ali Mokdad, Center for Disease Control
Robert A. Wright, National Center for Health Statistics

## 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

| Provider <br> Burden | \#Providers | \%Providers | \#IHQs | \%IHQs |
| :--- | ---: | ---: | ---: | ---: |
| 1 child | 11,080 | $62.3 \%$ | $\mathbf{1 1 , 0 8 0}$ | $\mathbf{2 8 . 7 \%}$ |
| 2-5 children | 5,540 | $31.3 \%$ | $\mathbf{1 5 , 1 4 0}$ | $\mathbf{3 9 . 3 \%}$ |
| 6-10 children | 822 | $4.6 \%$ | $\mathbf{6 , 0 7 7}$ | $\mathbf{1 5 . 8 \%}$ |
| 11-19 children | 267 | $1.5 \%$ | $\mathbf{3 , 6 8 4}$ | $\mathbf{9 . 6 \%}$ |
| 20+ children | 86 | $0.5 \%$ | $\mathbf{2 , 5 8 8}$ | $\mathbf{6 . 7 \%}$ |
| Total | 17,795 | $100.0 \%$ | 38,569 | $100.0 \%$ |

## Distribution of Children by Provider

(Q1 2000 - Q4 2000, 38,569 attempted mailings to 17,795 unique providers)


## Return Types by Number of Children

(Q1 2000 - Q4 2000, 38,569 attempted mailings to 17,795 unique providers)


Type of Return

## 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


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