Assessment of Immunization Levels in Children Enrolled in Maryland’s Licensed Family Childcare Centers

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Goal = 90%
for age 19-35 months
4:3:1:3:3:1
The Center for Immunization needs to know:

• How are we doing in 2007?
  • By County?
  • By coverage levels in childcare centers?
### 2005-06 NIS results for Maryland

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<td>±3.7</td>
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<td>±4.5</td>
<td>±6.0</td>
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<td>±4.1</td>
<td>±5.2</td>
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<td>±4.0</td>
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<tr>
<td><strong>MD-Rest of</strong></td>
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<td>92.1</td>
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<td>86.8</td>
<td>86.8</td>
<td>82.8</td>
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<tr>
<td><strong>State</strong></td>
<td>±4.1</td>
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<td>±3.1</td>
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A missed opportunity?

• Elementary school immunization requirements are well enforced

• 95% (5-6 yrs.) UTD at school entry

• Licensed childcare center immunization levels well enforced?? (>3.5 million children in childcare)

• ~80% (19-35 mo.) UTD
How to Measure Immunization Levels in Children 19-35 months

- National Immunization Survey (NIS)
- Cluster survey
- Immunization registry

- Retrospective school entrance records survey
- Retrospective birth-certificate survey

- Best method for DHMH?
National Immunization Survey
(CDC)

Annual
Random digit dial
2 stages
Reported at state level
  -statistical and ranking issues
Retrospective Elementary School Survey

• Enter at age 5

• Follow back to age 2
  Assess either UTD or “appropriate” or both
Less Common Methods

• **Retrospective Birth Certificate Surveys**
  – Sample cohort year/month
  – “Trace”
  – Can also be done prospectively

• **Cluster Sampled Surveys**
  – Standard method
  – Often used in developing countries
Immunization Information Systems

- Not available everywhere
- Priority of Healthy People 2010
- AAP strongly supports

- Cost will be >$78 million
  - 56 cents and 3.4 min ea.
(2002)
PHASE 1 COMPARISON of
Registry Data vs. National Immunization Survey

Source:
National Immunization Program
Centers for Disease Control and Prevention
not in registry
But in NIS
31-64%

not in NIS
But in Registry
12-28%

In both
(two or more vaccines in the registry)
60-88%
Measuring Immunization Coverage in Maryland
Immunization of 19-35 mo. age group in Maryland

• *In the last decade*

  – NIS

  – 1999 retrospective school survey done
    • 60-90% by county for UTD on 4:3:1
    • NIS same year = 80%

    • 81:93:94% for 4:3:1
    • 80:90:89% NIS 1998
Maryland, continued

- **Currently**
  - Immunet too underutilized
  - Retrospective study **not desired**
  - Childcare facility audits by MSDE **not helpful**
“Immunization requirements for childcare programs: Are they enough?”

. 

Asked 2002 NIS survey respondents for childcare information (now vs. at age 24 months)

Compared UTD proportions for children regularly in licensed childcare now (vs. not)

Compared UTD proportions for children regularly in licensed childcare at 24 mo. (vs. not)

Results: approx 73% in both groups!

Conclusion: Mandated immunization requirements for children in licensed daycare having no effect

Our Project

• Random sample of 500 licensed family childcare facilities
• Request for records for ages 15-35 mo.
• Request to answer short survey
• Have rec’d about 160 responses (range 0-5 children ea.)

• Will assess
  – UTD @24 months (4:3:1:*:3:1:1)
  – “appropriate” at 24 months
  – Depending on sample size, UTD @ 15 mo.

(* = at least 1 Hib given after 12 mo.)
Possible error/bias

- Sample
- Response bias
  - Socioeconomic
  - Noncompliance
Conclusions

- No data yet
- Laborious process
- Can process be repeated biannually?
- Cross-agency issues
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