School-Entry Monitoring of Vaccination Status

Gunter M. Pfaff, M.D., Dr. P.H.
Baden-Württemberg State Health Office, Stuttgart

Viral Hepatitis Prevention Board Meeting
Berlin, October 13-14, 2003
Topics

• Available sources of data
• Hepatitis B vaccination data
  – Germany, Federal and by State
  – Regional
• Hepatitis A vaccination data
  – Baden-Württemberg and regional
Acknowledgements

• Federal and State data were compiled at the Robert Koch-Institute, and were provided by Dr. Sabine Reiter, RKI.
• Data from Bavaria were compiled at the Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit, and were provided by Dr. Stephan Arenz and Dr. Gabriele Morlock.
• Data from Baden-Württemberg were compiled at the Landesgesundheitsamt Baden-Württemberg. Sources: School-entry examination data and regional vaccination surveys in secondary schools. Special thanks to local p.h.s. staff and to Dr. Caroline Dreweck and Rainer Brosch at the LGA.
§ 34 Abs. 11 Infection Protection Act

The public health office or a physician charged by the p.h.s. has, at the initial admission of a child to the 1st class of a primary school, to record the vaccination status, and to forward the anonymized and aggregated data via the state health authority to the Robert Koch-Institut.
Consequences flowing from § 34 Abs. 11 IfSG

- Local public health service offices are required to record the vaccination status of all children at school entry
- Timely, complete survey
- Parents are not obliged to cooperate. The provision of information and vaccination certificates is voluntary.
Vaccination Rates at School-Entry Examinations,
Germany, 2000-2002

Basis: 681,561 children with vaccination certificate,
Excl. Hamburg, Bremerhaven

Data provided by Sabine Reiter, Robert Koch-Institut
Vaccination Rates at School-Entry Examinations, Germany, 2000-2002
Basis: Children examined / with vaccination certificates

Excl. Hamburg, Bremerhaven, Sachsen
Status: September 2003
Data provided by Sabine Reiter, Robert Koch-Institut
School-Entry Examinations, Baden-Württemberg 2002

Total: 111764

- First examination: 105470
- Repeat examination: 2950
- Other: 106
- Vaccination survey only: 3238
Vaccination Coverage Rates at School-Entry Examinations, Baden-Württemberg 1987-2002

- **Measles, ≥ 1 dose**:
  - 1987: 90.8%
  - 1988: 85.2%
  - 1989: 69.9%
- **Measles, 2 or more doses**:
  - 1987: 90%
  - 1988: 80%
  - 1989: 70%
  - 1990: 60%
  - 1991: 50%
  - 1992: 40%
  - 1993: 30%
  - 1994: 20%
  - 1995: 10%
  - 1996: 0%
  - 1997: 0%
  - 1998: 0%
  - 1999: 0%
  - 2000: 0%
  - 2001: 0%
  - 2002: 0%
- **Hepatitis B, ≥ 3 doses**:
  - 1987: 32.5%
  - 1988: 32.5%
- **Pertussis, ≥4 doses**:
  - 1987: 90%
  - 1988: 80%
  - 1989: 70%
  - 1990: 60%
  - 1991: 50%
  - 1992: 40%
  - 1993: 30%
  - 1994: 20%
  - 1995: 10%
  - 1996: 0%
  - 1997: 0%
  - 1998: 0%
  - 1999: 0%
  - 2000: 0%
  - 2001: 0%
  - 2002: 0%

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Certificate provided by...</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>93,1</td>
</tr>
<tr>
<td>Turkish</td>
<td>84,6</td>
</tr>
<tr>
<td>Italian</td>
<td>88,7</td>
</tr>
<tr>
<td>Greek</td>
<td>82,5</td>
</tr>
<tr>
<td>Former YU</td>
<td>90,5</td>
</tr>
<tr>
<td>Other</td>
<td>79,5</td>
</tr>
</tbody>
</table>

Provisional data from 32 / 38 regional public health offices as of October 12, 2003
<table>
<thead>
<tr>
<th>Nationality</th>
<th>Unvaccinated</th>
<th>1-2 Doses</th>
<th>3+ Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>16,7</td>
<td>4,6</td>
<td>78,9</td>
</tr>
<tr>
<td>Turkish</td>
<td>7,6 *)</td>
<td>5,6</td>
<td>86,8</td>
</tr>
<tr>
<td>Italian</td>
<td>7,9</td>
<td>5,3</td>
<td>86,8</td>
</tr>
<tr>
<td>Greek</td>
<td>7,8</td>
<td>5,2</td>
<td>88,2</td>
</tr>
<tr>
<td>Former YU</td>
<td>7,5</td>
<td>4,0</td>
<td>86,3</td>
</tr>
<tr>
<td>Other</td>
<td>12,3</td>
<td>7,4</td>
<td>80,3</td>
</tr>
</tbody>
</table>

Provisional data from 32 / 38 regional public health offices as of October 12, 2003

*) P< 0.001 for vaccination vs. otherwise
Hepatitis A Vaccination Coverage at School-Entry Examinations, by Nationality, Baden-Württemberg 2003

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Unvaccinated</th>
<th>1-2 Doses</th>
<th>3+ Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>94,5</td>
<td>2,6</td>
<td>3,0</td>
</tr>
<tr>
<td>Turkish</td>
<td>90,8</td>
<td>4,9</td>
<td>4,3</td>
</tr>
<tr>
<td>Italian</td>
<td>94,5</td>
<td>2,6</td>
<td>3,0</td>
</tr>
<tr>
<td>Greek</td>
<td>94,6</td>
<td>2,3</td>
<td>3,1</td>
</tr>
<tr>
<td>Former YU</td>
<td>93,1</td>
<td>2,7</td>
<td>4,2</td>
</tr>
<tr>
<td>Other</td>
<td>90,6</td>
<td>6,3</td>
<td>3,1</td>
</tr>
</tbody>
</table>

Provisional data from 32 / 38 regional public health offices as of October 12, 2003
Vaccination Coverage Rates for Hepatitis B at School-Entry Examinations, by reporting Public Health Office, Bavaria 2002

Data provided by Stephan Arenz and Gabriele Morlock, Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit
Vaccination Coverage Rates for Hepatitis B at School-Entry Examinations, by reporting Public Health Office, Bavaria 2002

Data provided by Stephan Arenz and Gabriele Morlock, Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit
Availability of Vaccination Coverage Data for Secondary School Children (Grades 5-9) by County, Baden-Württemberg 2002/2003
Vaccination Coverage among Children 11-12 Years, Baden-Württemberg, 2002/2003

<table>
<thead>
<tr>
<th>Age</th>
<th>Hepatitis B Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unvaccinated</td>
</tr>
<tr>
<td>11 yrs. (n=7927)</td>
<td>29,6</td>
</tr>
<tr>
<td>12 yrs. (n=5547)</td>
<td>40,2</td>
</tr>
</tbody>
</table>

Pooled data from surveys in 11 counties.
Data may not be representative of entire source population.
Summary

• Hepatitis B vaccination coverage among children entering school age is rising fast
• Regional differences
  – Some communities have reached 95% coverage
  – Others remain far behind
• Coverage among adolescents lags behind
• Hepatitis A vaccination coverage remains low