Comparison of Maximum and Current Reported Morbidity, Vaccine-Preventable Diseases and Vaccine Adverse Events, United States

<table>
<thead>
<tr>
<th>Disease</th>
<th>Pre-vaccine Era</th>
<th>2000</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria</td>
<td>31,054</td>
<td>1</td>
<td>-99</td>
</tr>
<tr>
<td>Measles</td>
<td>390,852</td>
<td>86</td>
<td>-99</td>
</tr>
<tr>
<td>Mumps</td>
<td>21,342</td>
<td>338</td>
<td>-99</td>
</tr>
<tr>
<td>Pertussis</td>
<td>117,998</td>
<td>7,867</td>
<td>-93</td>
</tr>
<tr>
<td>Polio (wild)</td>
<td>4,953</td>
<td>0</td>
<td>-100</td>
</tr>
<tr>
<td>Rubella</td>
<td>9,941</td>
<td>176</td>
<td>-98</td>
</tr>
<tr>
<td>Cong. Rubella Synd.</td>
<td>19,177</td>
<td>9</td>
<td>-99</td>
</tr>
<tr>
<td>Tetanus</td>
<td>1,314</td>
<td>35</td>
<td>-97</td>
</tr>
<tr>
<td>Invasive Hib Disease</td>
<td>24,856</td>
<td>112</td>
<td>-99</td>
</tr>
<tr>
<td>Total</td>
<td>566,706</td>
<td>8,624</td>
<td>-98</td>
</tr>
<tr>
<td>Vaccine Adverse Events</td>
<td>0</td>
<td>13,497</td>
<td>+++</td>
</tr>
</tbody>
</table>

Importance of Vaccine Safety

• Decreases in disease risks and increased attention on vaccine risks
• Public confidence in vaccine safety is critical
  • Higher standard of safety is expected of vaccines
  • Vaccinees generally healthy (vs. ill for drugs)
  • Lower risk tolerance = need to search for rare reactions
  • Vaccination universally recommended and mandated

Missed Opportunity

A healthcare encounter in which a person is eligible to receive vaccination but is not vaccinated completely
**Reasons for Missed Opportunities**

- Lack of simultaneous administration
- Unaware child needs additional vaccines
- Invalid contraindications
- Inappropriate clinic policies
- Reimbursement deficiencies

**Strategies for Reducing Missed Opportunities**

- Standing orders
- Provider education with feedback
- Provider reminder and recall systems

**Incentives**

- Something that incites to action
- Vary by provider and stage of progress
- Opportunities for partnership and collaboration
Reduction to Barriers to Immunization

- Physical barriers
  - waiting time
  - distance
- Psychological barriers
  - unpleasant experience
  - safety concerns

Strategies for High Immunization Levels

- Recordkeeping
- Recommendations and reinforcement
- Reminder and recall to patients
- Reminder and recall to providers
- Reduction of missed opportunities
- Reduction of barriers to immunization

Records

- Must be available at the time of the visit
- Must be easy to read
- Must be accurate
  - reflect current patient population
  - reflect all vaccines given
Immunization Registries

- Single data source for all providers
- Reliable immunization history
- Produce records for patient use
- Key to increasing immunization levels

Recommendations & Reinforcement

- Recommend the vaccine
  - powerful motivator
  - patients likely to follow recommendation of the provider
- Reinforce the need to return
  - verbal
  - written
  - link to calendar event

Invalid Contraindications to Vaccination

- Minor illness
- Mild/moderate local reaction or fever following a prior dose
- Antimicrobial therapy
- Disease exposure or convalescence
- Pregnancy or immunosuppression in the household
- Premature birth
- Breastfeeding
- Allergies to products not in vaccine
- Family history (unrelated to immunosuppression)