Immunisation in New Zealand/ Aotearoa

Progress and Challenges

Dr Caroline McElnay
Director of Public Health

September 2017
<table>
<thead>
<tr>
<th>Progress</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Coverage</td>
<td>Population coverage</td>
</tr>
<tr>
<td>Equity</td>
<td>Equity</td>
</tr>
<tr>
<td>New vaccines</td>
<td>Scheduling</td>
</tr>
<tr>
<td>NIR</td>
<td>NIR</td>
</tr>
<tr>
<td>Impact on disease</td>
<td>Maintaining confidence</td>
</tr>
</tbody>
</table>
Coverage and Equity at 2 years old

Coverage and equity at 5 years old

Immunisation Coverage for children at 5 years 2010-2017

Percentage

- Total
- Māori
- Pacific
- Dep 9-10

Declines & missed rates

![Graph showing immunisation at age 8 months: decline/opt-off and missed rates](image-url)
New Vaccines in last 10 years

MeNZB

Hexavalent - DTaP-IPV-HepB/HIB

Tdap in pregnancy

PCV

HPV boys and girls

Rotavirus

Varicella

??
NIR

• 12 years old

• developed to capture MENZB vaccinations

• adapted to capture CI schedule

• now captures-
  ➢ adult and high risk funded vaccinations
  ➢ flu vaccine from general practices and pharmacies

• those 13 years and older not on NIR from birth
  ➢ need to be manually opted onto the NIR
Invasive pneumococcal disease

Rate (per 100,000 population) of invasive pneumococcal disease by age, over time

Rotavirus disease

Figure 4. Rotavirus hospital discharges for children aged under 5 years by month, all New Zealand, 2010–2014 average compared with 2015

Source: ESR 2015 Rotavirus report
CHALLENGES

• Coverage and Equity – maintaining and sustaining

• Scheduling - fitting in all those antigens, balancing best immune response against risk of disease, into a schedule that is acceptable to parents and caregivers

• What vaccines do we add to the schedule which will be most important for New Zealand?
Regional variation and inequity in coverage at 24 months
# National Immunisation Schedule

<table>
<thead>
<tr>
<th>Antigen(s)</th>
<th>DTaP-IPV-HepB/Hib</th>
<th>PCV10</th>
<th>RV1</th>
<th>MMR</th>
<th>Hib</th>
<th>VV</th>
<th>DTaP-IPV</th>
<th>Tdap</th>
<th>HPV9</th>
<th>Td</th>
<th>Influenza</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand name</strong></td>
<td>Infanrix-hexa</td>
<td>Synflorix</td>
<td>Rotarix</td>
<td>Priorix</td>
<td>Hiberix</td>
<td>Varilrix</td>
<td>Infanrix-IPV</td>
<td>Boostrix</td>
<td>Gardasil 9</td>
<td>ADT Booster</td>
<td>Influvac</td>
</tr>
<tr>
<td><strong>Pregnancy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6 weeks</strong></td>
<td>DTaP-IPV-HepB/Hib</td>
<td>PCV10</td>
<td>RV1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3 months</strong></td>
<td>DTaP-IPV-HepB/Hib</td>
<td>PCV10</td>
<td>RV1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5 months</strong></td>
<td>DTaP-IPV-HepB/Hib</td>
<td>PCV10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>15 months</strong></td>
<td>PCV10</td>
<td>MMR</td>
<td>Hib</td>
<td>VV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4 years</strong></td>
<td></td>
<td>MMR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>11 or 12 years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tdap</td>
<td>HPV9 (2 doses)</td>
<td></td>
</tr>
<tr>
<td><strong>45 years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>65 years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Influenza (annually)</td>
</tr>
</tbody>
</table>

**Key:**
- D = diphtheria; T = tetanus; aP = acellular pertussis; IPV = inactivated polio vaccine; HepB = hepatitis B; Hib = *Haemophilus influenzae* type b;
- PCV10 = 10-valent pneumococcal conjugate vaccine; RV1 = rotavirus vaccine (monovalent); MMR = measles, mumps and rubella;
- VV = varicella vaccine; d = adult diphtheria; aP = adult acellular pertussis; HPV9 = human papillomavirus (9 serotypes).
Challenges

• NIR – fit for the future

• Safety and confidence in the system
  • Vaccine Hesitancy
  • Minimisation of outbreaks
    – i.e. measles, pertussis
  • Vaccine supply