Joint Committee on Vaccination and Immunisation

United Kingdom
UK Immunisation in the first half of the 20th century

• From the 1930s to 1950s the delivery and design of non-smallpox immunisation programmes was **locally led**.

• Permission for Local Health Authorities (LHA) to run immunisation schemes had to be obtained from the Ministry of Health under the Public Health Act 1936, section 177 (1) /204 and from 1948 under section 26 of the NHS Act 1946.

• In January 1940, the Ministry of Health recommended that all LHAs applied to run diphtheria immunisation programmes to **eliminate diphtheria** and secondly to prevent a resurgence of disease due to war conditions at the time.

*Uncoordinated services failed to control disease and led to inequity*
Polio epidemic and the origins of the NITAG

• 1955 Joint Committee on Poliomyelitis Vaccine constituted to advise on the use of polio vaccine for mass immunisation and respond to specific Ministerial questions (CHSC ref). The committee included members of both health councils and other external experts under the chairmanship of Lord Cohen.

• Symposium on immunisation in childhood was held in London 4-6th May 1959. Two alternate schedules P & Q considered by the Ministry of Health and approved by the Joint Committee on Poliomyelitis Vaccine

• In 1963, the Joint Committee for Polio Vaccination was replaced with the Joint Committee on Vaccination and Immunisation (JCVI) with a wider remit than just polio vaccination.

• JCVI became a statutory body in 1977

• JCVI currently exists as an Independent Departmental Expert Committee that advises the UK health departments on immunisation for prevention of infectious disease

Prevention of epidemic polio led to a programme that is now the cornerstone of public health

Thanks to Sarah Lang for supplying historical data
Membership

- infectious diseases
- epidemiology
- virology
- bacteriology
- immunology
- vaccinology
- neurology
- public health

- mathematical modelling
- health economics
- general practice
- nursing
- paediatrics
- management of immunisation programmes
- Lay members

Secretariat hosted by Public Health England
Open adverts and interviews

Observers from UK Public Health agencies, UK Governments, military
“To advise UK health departments on immunisations for the prevention of infections and/or disease following due consideration of the evidence on the burden of disease, on vaccine safety and efficacy and on the impact and cost effectiveness of immunisation strategies. To consider and identify factors for the successful and effective implementation of immunisation strategies. To identify important knowledge gaps relating to immunisations or immunisation programmes where further research and/or surveillance should be considered.”
JCVI process:

• The process involves appraisal of the available evidence:
  • published literature
  • unpublished data
  • advice from international bodies including WHO
  • correspondence with key experts;
  • commissioned clinical research
  • commissioned epidemiological analyses
  • commissioned operational analyses
  • commissioned attitudinal research
  • commissioned bespoke mathematical modelling studies of the impact and cost effectiveness of immunisations strategies;
  • horizon scanning of vaccine developments
  • calls for evidence from interested parties

Strong & systematic evidence synthesis
Expert secretariat
NHS constitution

Since 1 April 2009 the Health Protection (Vaccination) Regulations 2009 place a duty on the Secretary of State for Health in England to ensure, so far as is reasonably practicable, that the recommendations of JCVI are implemented, where those recommendations:

a) relate to new provision for vaccination under a national vaccination programme or to changes to existing provision under such a programme and

b) are made by JCVI (and not therefore a Sub-committee of JCVI) and

c) are in response to a question referred to the JCVI by the Secretary of State and

d) are based on an assessment which demonstrates cost-effectiveness and

e) do not relate to vaccination in respect of travel or occupational health.

This duty ceases to apply in relation to a recommendation where JCVI withdraws that recommendation.

Recommendations are binding if certain criteria are met, but advice can also be provided in other circumstances.
### 51 years ago
**Vaccines in the UK programme 1966**

<table>
<thead>
<tr>
<th>Vaccine/Age</th>
<th>Visit 1 1-6 months</th>
<th>Visit 2 1-6 months</th>
<th>Visit 3 1-6 months</th>
<th>Visit 4 7-10 months</th>
<th>Visit 5 7-10 months</th>
<th>Visit 6 15-18 months</th>
<th>Visit 4 18-21 months</th>
<th>School entry</th>
<th>8-12 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, Tetanus, Pertussis</td>
<td>DTwP 1</td>
<td>DTwP 2</td>
<td>DTwP 3</td>
<td></td>
<td></td>
<td>DTwP 4</td>
<td>DT</td>
<td>DT</td>
<td></td>
</tr>
<tr>
<td>Polio</td>
<td></td>
<td></td>
<td></td>
<td>Polio 1</td>
<td>Polio 2</td>
<td>Polio 3</td>
<td>Polio 4</td>
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<tr>
<td>Smallpox</td>
<td>Smallpox 1 at 4-5 months</td>
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<td></td>
<td></td>
<td></td>
<td>Smallpox 2</td>
<td></td>
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<tr>
<td>BCG</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td>BCG (&gt;12 years)</td>
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</tbody>
</table>
21 years ago
Vaccines in the UK programme 1996

<table>
<thead>
<tr>
<th>Vaccine/Age</th>
<th>2 months</th>
<th>3 months</th>
<th>4 months</th>
<th>12 m</th>
<th>13m</th>
<th>3-5 years</th>
<th>13-18 y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, Tetanus, Pertussis, Polio, Hib</td>
<td>DTwP-Hib + oral polio</td>
<td>DTwP-Hib + oral polio</td>
<td>DTwP-Hib + oral polio</td>
<td>DT + oral polio</td>
<td>dT + oral polio</td>
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<tr>
<td>Measles, Mumps, Rubella</td>
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<td></td>
<td></td>
<td>MMR</td>
<td>MMR</td>
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JCVI
Joint Committee on Vaccination and Immunisation
<table>
<thead>
<tr>
<th>Vaccine/Age</th>
<th>Maternal</th>
<th>2 months</th>
<th>3 months</th>
<th>4 months</th>
<th>12 m</th>
<th>3-5 years</th>
<th>5-11 years</th>
<th>13-18 y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, Tetanus, Pertussis, Polio, Hib, HBV</td>
<td>DTaP</td>
<td>DTaP-IPV-Hib-HBV</td>
<td>DTaP-IPV-Hib-HBV</td>
<td>DTaP-IPV-Hib-HBV</td>
<td>Hib-MenC</td>
<td>dTaP-IPV</td>
<td>dT-IPV</td>
<td> </td>
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<tr>
<td>Meningococcal C</td>
<td> </td>
<td>MenC</td>
<td> </td>
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<td> </td>
<td> </td>
<td>MenACWY</td>
<td> </td>
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<tr>
<td>Rotavirus</td>
<td> </td>
<td>Rv</td>
<td>Rv</td>
<td> </td>
<td> </td>
<td> </td>
<td> </td>
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<tr>
<td>Measles, Mumps, Rubella</td>
<td> </td>
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<td> </td>
<td> </td>
<td>MMR</td>
<td>MMR</td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>PCV13</td>
<td>PCV13</td>
<td>PCV13</td>
<td> </td>
<td> </td>
<td> </td>
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<tr>
<td>Cervical cancer (HPV)</td>
<td> </td>
<td> </td>
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<td> </td>
<td> </td>
<td> </td>
<td>HPVx2</td>
<td> </td>
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<tr>
<td>Meningococcal B</td>
<td> </td>
<td>MenB</td>
<td>MenB</td>
<td>MenB</td>
<td> </td>
<td>LAIV (from 2 years)</td>
<td>LAIV</td>
<td> </td>
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<tr>
<td>Influenza</td>
<td>TIV</td>
<td> </td>
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Surveillance critical to inform vaccine introduction and demonstrate programme benefit.
Under 5 mortality UK

1960 - 2015

World Bank
Challenges for JCVI

• Strengths:
  • Comprehensive immunisation programme
  • Strong surveillance system
  • Forward looking and horizon scanning
  • Clear terms of reference
  • Well organised secretariat
  • Manages the programme

• Challenges
  • Maintaining strong systems to monitor vaccine impact and changing epidemiology when finances are constrained
  • Capacity in the secretariat
  • Balance between cost-effectiveness analysis, public perception and health benefit
  • Public confidence in immunisation – important role of JCVI
  • Health economic drivers of decisions could reduce flexibility
  • Is there a need for a NITAG?
Future priorities

• Childhood
  • RSV
  • GBS
  • (? CMV, Group A Strep)

• Older adult…….
  • Improve current vaccines - influenza, shingles, pneumococcal PS
  • Respiratory infections including RSV
  • Gram negative infections

• Special Groups
  • High risk
  • Nosocomial infection
  • Outbreak Pathogens