Role of Vaccines

Dr S.S.UBRAMANIAN
Current status

• About 15% of the world’s population or one in seven people suffer from disability.
• It is estimated that some 93 million children – or one in 20 of those under 15 years of age – live with a moderate or severe disability.

Right to health care

• Health care, including immunization efforts, is a right guaranteed for all children

• This includes children with disabilities


DIRECT AND INDIRECT FEEDBACK LOOP

BETWEEN IMMUNIZATIONS AND DISABILITY
Immunizations can eliminate or mitigate many preventable illnesses that can lead to long-term impairments and disabilities.

Immunization for children with disabilities can help them to avoid preventable illness, further disablement or death.
DISABILITY - SOCIAL VS MEDICAL MODELS

- **SOCIAL MODEL’ OF DISABILITY**: People with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

- **MEDICAL MODEL OF DISABILITY**: Disability is a result solely of the individual’s physical, sensory, intellectual or mental health impairment.


INEQUITABLE ACCESS TO HEALTH!

Health needs of children with disabilities are usually addressed only after the needs of children without disabilities are provided for or addressed.

Immunization Is a Health Priority

- Immunization is a critical component of global efforts to reduce childhood morbidity and mortality, particularly for children under five years of age.
- More and more children are getting access to more variety of vaccine, promoting the overall health of the community.
Children with Disabilities are being Left Out

Often due to lack of awareness of the community, parents and the healthcare providers.
Consequence of not immunizing or partially immunizing a child with disability

- Poorer health outcomes;
- Missing or delay in reaching developmental milestones;
- Avoidable secondary conditions or disabilities;
- They may themselves become carriers for communicable diseases, such as polio;
- In extreme circumstances, preventable death.
Immunization Rates among Children with Disabilities: A Limited Database

• Little research exists globally on the health of children with disabilities beyond their impairment-specific needs
• Even less is known about immunization rates or practices for children with disabilities.
Lower immunization rates among children with disability.

Significantly lower immunization rates for children with disabilities than for their peers without disabilities, even in developed countries with good overall immunization rates.

For example

- Canada: children with disabilities had significantly lower immunization rates, despite free immunizations available through the Canadian national health system.
- A study of 120 children with spina bifida in the United States found significant under-immunization.

Tervo, R., & Taylor, B. Vaccinations and the physically handicapped child. Canadian Medical Association (CMAJ); 1982; 127:474-476.
WHY??

Impoverished communities/families may forego health care for children with disabilities instead allocating scarce resources to children without disabilities or pressing household needs.

Inclusive Immunization as an Entry Point for Additional Health Outcomes
Vaccination Visits
An opportunity to

- Delivery nutritional supplements such as vitamin A supplements
- Screening & Prevention of malnutrition
- Deworming
- A platform to promote health promoting behaviours such as hand washing.
Vaccination visits

May help facilitate the Early Identification of a child’s disability and hence early appropriate referrals.
Next steps.....
1

Reach out to caregivers..

Efforts should be made to reach caregivers of unimmunized children with disabilities
Educate healthcare community.

- Health care workers worry that the child would react badly to immunization.
- Poor knowledge on need for immunizations.
3 Collect data. What is not measured will not improve.

LOCAL/ STATE/ COUNTRY LEVEL
Areas of research...

- Specific focus among girl child with disability, rural areas, etc as they are likely to have less access to health care.
- Studies on the barriers to immunization for children with disabilities
Collaboration and Consultation between key players working on immunization and the disability community.
IAP Vaccination schedule

Widely followed template in India
<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>BCG, OPV 0, Hep-B 1</td>
</tr>
<tr>
<td>6 weeks</td>
<td>DTwP 1, IPV 1, Hep-B 2, Hib 1, Rotavirus 1, PCV 1.</td>
</tr>
<tr>
<td>10 weeks</td>
<td>DTwP 2, IPV 2, Hib 2, Rotavirus 2, PCV 2.</td>
</tr>
<tr>
<td>14 weeks</td>
<td>DTwP 3, IPV 3, Hib 3, Rotavirus 3, PCV 3</td>
</tr>
<tr>
<td>6 months</td>
<td>OPV 1, Hep-B 3</td>
</tr>
<tr>
<td>9 Months</td>
<td>OPV 2, MMR-1.</td>
</tr>
<tr>
<td>9-12 months</td>
<td>Typhoid Conjugate Vaccine</td>
</tr>
<tr>
<td>12 months</td>
<td>Hep-A 1</td>
</tr>
<tr>
<td>15 months</td>
<td>MMR 2, Varicella 1, PCV booster</td>
</tr>
<tr>
<td>16 to 18 Months</td>
<td>DTwP B1/DTaP B1, IPV B1, Hib B1</td>
</tr>
<tr>
<td>18 months</td>
<td>Hep-A 2</td>
</tr>
<tr>
<td>2 years</td>
<td>Booster of Typhoid Conjugate Vaccine</td>
</tr>
<tr>
<td>4 to 6 years</td>
<td>DTwP B2/DTaP B2, OPV 3, Varicella 2, MMR 3</td>
</tr>
<tr>
<td>10 to 12 years</td>
<td>Tdap/Td, HPV</td>
</tr>
</tbody>
</table>
II. IAP recommended vaccines for High-risk* children (Vaccines under special circumstances):

- Influenza Vaccine
- Meningococcal Vaccine
- Japanese Encephalitis Vaccine
- Cholera Vaccine
- Rabies Vaccine
- Yellow Fever Vaccine
- Pneumococcal Polysaccharide vaccine (PPSV 23)
INFLUENZA VACCINE

- Has come into more focus after multiple global pandemic.
- Causes both morbidity and mortality in a susceptible individual.
- Especially important as we look into adolescents and adults with disability.
Increasing need..

- Better survival of children with disability.
- Hence paradoxical increase in population with disability
- More inclusion into the society leading to child with disability being a part of the transmission chain of many communicable diseases.
CONCLUSION

• People with disabilities have the right to survival and the highest attainable standard of health without discrimination on the basis of disability, including immunization.
• The health and disability agendas should be brought closer together to ensure prevention efforts such as immunization.
Thank you

Dr S. Subramanian