National Immunization Program & International Cooperation

2017. 5. 21.

Korea Centers for Disease Control and Prevention
Republic of Korea has achieved a lot in a short period
History of NIP and VPD Control

Introduction of Vaccines

- 1912: Cholera
- 1948: BCG
- 1954: EPI by Act
- 1955: DTP
- 1965: Measles
- 1965: Polio eradication
- 1970: Smallpox
- 1980: MMR
- 1985: HepB
- 1995: Measles Outbreak
- 1997: Perinatal HepB Program
- 2000: Varicella in NIP
- 2000/2001: MMR
- 2001: MR catch-up
- 2004: Td
- 2005: OPV → IPV
- 2006: Measles Elimination Declaration
- 2008: Verification for HBV Control
- 2009: Expand subsidy for NIP vaccines
- 2010: PCV in NIP
- 2010: Measles Elimination Verification
- 2013: PPSV for Elderly
- 2014: Perinatal HepB Program
- 2014: IPV
- 2015: HepA in NIP
- 2015: OPV
- 2016: HPV in NIP
- 2016: PCV in NIP
- 2017: Expand subsidy for NIP vaccines
- 2020: Pandemic Influenza Control
- 2020: Measles Elimination Verification

Policy pertaining to Immunization

- 1965: Polio eradication
- 1970: Smallpox
- 1975: EPI by Act
- 1980: MMR
- 1985: HepB
- 1995: Measles Outbreak
- 1997: Perinatal HepB Program
- 2000: Varicella in NIP
- 2000/2001: MMR
- 2001: MR catch-up
- 2004: Td
- 2005: OPV → IPV
- 2006: Measles Elimination Declaration
- 2008: Verification for HBV Control
- 2010: PCV in NIP
- 2013: PPSV for Elderly
- 2015: HepA in NIP
- 2016: HPV in NIP
- 2017: Expand subsidy for NIP vaccines
- 2020: Pandemic Influenza Control
# Expanded NIP

## Rapid increase in No. of vaccines covered by NIP

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of NIP vaccine</th>
<th>Introduced vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>~99</td>
<td>16</td>
<td>(Add) HFRS(1992), Influenza(1997)</td>
</tr>
<tr>
<td>~current</td>
<td>22</td>
<td>(Add) Varicella(2005), Hib, PPSV23 for elderly(2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PCV for children(2014)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hepatitis A for children(2015)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HPV, Influenza for infants (2016)</td>
</tr>
</tbody>
</table>
### National Immunization Coverage

**High immunization coverage at the 3 year-old cohort**

<table>
<thead>
<tr>
<th>Classification</th>
<th>2012 (sample survey)</th>
<th>2013 (sample survey)</th>
<th>2014 (sample survey)</th>
<th>2015 (total N of birth cohort from registry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>99.7</td>
<td>99.8</td>
<td>99.6</td>
<td>96.7</td>
</tr>
<tr>
<td>3 HepB</td>
<td>98.8</td>
<td>99.4</td>
<td>99.3</td>
<td>96.3</td>
</tr>
<tr>
<td>4 DTaP</td>
<td>93.9</td>
<td>96.8</td>
<td>96.5</td>
<td>95.6</td>
</tr>
<tr>
<td>3 IPV</td>
<td>98.8</td>
<td>99.4</td>
<td>99.4</td>
<td>97.4</td>
</tr>
<tr>
<td>MMR</td>
<td>99.4</td>
<td>99.6</td>
<td>99.6</td>
<td>97.7</td>
</tr>
<tr>
<td>Varicella</td>
<td>97.8</td>
<td>98.7</td>
<td>98.7</td>
<td>97.3</td>
</tr>
<tr>
<td>3(2)JE</td>
<td>86.8</td>
<td>88.9</td>
<td>91.9</td>
<td>92.5</td>
</tr>
<tr>
<td>3:3:3:1 1)</td>
<td>97.3</td>
<td>98.7</td>
<td>98.6</td>
<td>94.3</td>
</tr>
<tr>
<td>4:3:1 2)</td>
<td>92.9</td>
<td>96.4</td>
<td>96.2</td>
<td>95.4</td>
</tr>
<tr>
<td>4:3:1:3:1 3)</td>
<td>91.7</td>
<td>95.8</td>
<td>95.6</td>
<td>92.6</td>
</tr>
<tr>
<td>4:3:1:3:1:1 4)</td>
<td>90</td>
<td>94.7</td>
<td>94.7</td>
<td>92.1</td>
</tr>
<tr>
<td>4:3:1:3:1:3(2) 5)</td>
<td>80.5</td>
<td>85.8</td>
<td>88.4</td>
<td>88.3</td>
</tr>
</tbody>
</table>

1) 3 doses DTaP, 3 doses Poliovirus, 3 doses Hepatitis B, 1 dose BCG (coverage at 1 year)
2) 4 doses DTaP, 3 doses Poliovirus, 1 dose MMR
3) 4 doses DTaP, 3 doses Poliovirus, 1 dose MMR, 3 doses Hepatitis B, 1 dose BCG
4) 4 doses DTaP, 3 doses Poliovirus, 1 dose MMR, 3 doses Hepatitis B, 1 dose BCG, 1 dose Varicella
5) 4 doses DTaP, 3 doses Poliovirus, 1 dose MMR, 3 doses Hepatitis B, 1 dose BCG, 1 dose Varicella, 3(or 2) doses Japanese encephalitis (coverage at 3 year)
How did Korea succeed in NIP in a short period?
6 Reasons to Succeed

Rapid increase in No. of vaccines covered by NIP

1. Making NIP a political issue
   - Easily get budgets for full coverage of immunization (public and private sectors provide free vaccination)
2. Establishing National Immunization Registry
   - Ensured high coverage and timely immunization
3. Strengthening law to achieve high coverage
   - Require parents to submit immunization records for school entry
4. Establishing vaccine safety management system
   - Compensation program for vaccine adverse effects
   - Vaccine safety management by national regulatory authority
5. Covering all the legal and illegal residents in Korea
   - Aim to cover vulnerable populations
6. Communicating successfully with the public
   - Develop target specified communication skills
Expanded NIP

Expanded financial support and engagement of private sector: For **universal coverage and increased accessibility**

- **~2008**
  - Covered immunization provided by the public sector only

- **In 2009**
  - Reimbursed cost for vaccine provided by private clinics

- **In 2012**
  - Reimbursed cost for vaccine and part of administration fee provided by the private sector

- **In 2014**
  - **Reimbursed cost for vaccine and administration** fee provided by the private sector ➔ Free vaccination by NIP
Immunization Registry System (1)

High coverage and timely vaccination through multi-sectoral linkage

Immunization Registry System Service Flowchart

- Ministry of Government Administration and Home Affairs
  - Resident computerized information
  - Minwon24
  - Local Finance

- Ministry of Health and Welfare
  - Social Security Information
  - Integrated Childcare Information
  - Local Healthcare Information

- National Health Insurance Service
  - Infant health screening system

- Ministry of Education
  - Educational information system

- Ministry of National Defense
  - the arm forces medical command system

Immunization Registry System (IR)

Target person management

Medical Institutions

Public Health center

PEOPLE

Reimbursement of expenses

Issues immunization certificates

Student information

SMS

Resident information

(Qualified data available)
Immunization Registry System (2)

High coverage and timely vaccination through recall/reminds service

1) Send text message for recall/reminds
2) Issue a certificate of vaccination on Minwon24 website
3) Check vaccination history by Mobile App.
4) Check vaccination history on NIP website

Children under 12 years
School Entry Requirement

Requirement of vaccination records for school entry by law

- Started in 2001 for 2nd dose MMR vaccination → expanded in 2011
- For all children enrolling in elementary school
- Currently 4 types of vaccination for children aged 4~6 years
  - DTaP 5th, IPV 4th, MMR 2nd, JE(inactivated) 3rd or JE(live attenuated) 2nd
- Linked IR system of KCDC and student information system of the Ministry of education

※ In 2018, vaccination for Td/Tdap and HPV 1st will be required for middle school entry
Covering Vulnerable Populations

Ensuring accessibility for vulnerable populations such as foreigners

- All registered foreigners are covered by NIP
  - Free vaccination either at public health centers or private clinics (same as Korean people)

- Unregistered foreigners are covered by NIP only at public health centers
Vaccine Safety Management System

High immunization coverage through compensation program for VAE

- Ensuring safe vaccine supply & administration
  - KMFDS-approved vaccine supply
  - Regular education for healthcare personnel
  - KMFDS & KCDC

- National vaccine injury compensation program

- "Safe Immunization"

- Surveillance of AEFI

- Rapid response & investigation

KCDC
Communication with the Public

Successful immunization awareness campaigns & promotion

Parents guidebook in different languages

Vaccine information statement

Immunization week events (4th week, April)
Communication with the Public

Various campaign platforms and tools for NIP

Immunization App. promotion
How does and will Korea cooperate with the international community?
International Cooperation

Sharing our experience with VPD control and NIP

- Sharing measles elimination and hepatitis B control experience with neighboring countries such as China and Mongolia
- Sharing experience of developing policy and Immunization Registry System with Viet Nam
- Sharing experience of vaccine safety management system with countries in WPR
- Providing laboratory supplies, financial support for polio elimination through KCDC ODA through WHO
International Contribution

Sharing our experience and international contribution with VPD control and NIP

- Strengthen international contribution through ODA
  - Develop program to share experiences through KCDC ODA
  - Coordinate with KOICA and KOFIH ODA program
Thank you !