National Immunization Registry

Chilean Ministry of Health (MINSAL)
National Immunization Registry

Definition

• An information system registry for vaccines delivered by the National Immunization Program (NIR). It allows registration of routine and vaccination campaign doses, both in the public and private establishments, under the umbrella of the Ministry of Health (MOH) at the national level.
National Immunization Registry

Introduction

• The National Immunization Registry was designed and implemented as a computer information system, which allows for the registration of all vaccines and tracking each product and person vaccinated, whether universally, or in specific target groups, age groups, seasonal or sporadic vaccination.
National Immunization Registry

History

• It started in 2010 with the national registry for the influenza vaccination campaign. Preparation work consisted of video conferences, delivery of material and the preparation of statistical network and program responsibilities, for its implementation in both public and private establishments.

• The joint work at the central and regional level, allowed the country in 2010 to have access to the registry of each individual vaccinated, thus providing valuable information for decision-making in prevention and health protection.
National Immunization Registry

Registration Process
National Immunization Registry

Important Information

The Registry (RNI) was launched on March 22\textsuperscript{nd}, 2010

Team:
\begin{itemize}
  \item National Immunization Program at the MOH (PNI)
  \item Statistics and Health Information Department at the MOH (DEIS)
  \item Information and Communication Technology Department at the MOH (TIC)
\end{itemize}

To date:
\begin{itemize}
  \item 9 intervention campaigns have been included
  \item 6,866,031 registered people in the RNI system
  \item 1,904 establishments (public and private) in the RNI system
\end{itemize}
National Immunization Registry

Important Information

• The compliance with using the system was progressive and rapid, allowing viewing information online.

• The RNI allows tracking the registered data, such timely follow-up completed vaccination schedules for each person entered into the system.
National Immunization Registry

Challenges

• Sub-national connectivity [in the regions]

• User rejection

• Coordinating the regions

• Complexity in the registration of certain vaccines (BCG, yellow fever).
National Immunization Registry Modules

<table>
<thead>
<tr>
<th>Year</th>
<th>Modules</th>
</tr>
</thead>
</table>
| 2010 | - National registration of the Influenza AH1N1 campaign  
      - Hepatitis A (for one region of the country)  
      - Measles-Rubella (Third follow-up campaign) |
| 2011 | - Registration of routine vaccines  
      - BCG vaccine module  
      - Campaigns  
      - Influenza 2011  
      - Measles-Mumps-Rubella (MMR) for health workers and personnel working at international borders  
      - Traveler MMR (WHO recommendation)  
      - Whooping Cough, cocoon strategy (whooping cough outbreak in Bío Bío region) |
### National Immunization Registry Modules

<table>
<thead>
<tr>
<th>Year</th>
<th>Modules</th>
</tr>
</thead>
</table>
| 2012 | - “Whooping Cough Strategy” Campaign that includes more regions of the country  
      - Influenza Campaign 2012  
      - Registration of routine vaccines (BCG, Pentavalent, Conjugate Pneumococcal, etc.) |
### National Immunization Registry Records

#### Total number of routine vaccines in the NIR, 2011-2012¹

<table>
<thead>
<tr>
<th>Region</th>
<th>Total 2011</th>
<th>Total 2012</th>
<th>Total 2011</th>
<th>Total 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country Total</td>
<td>3.203.562</td>
<td>1.893.391</td>
<td>1.310.171</td>
<td>1.344.447</td>
</tr>
<tr>
<td>Arica and Parinacota</td>
<td>26.221</td>
<td>21.077</td>
<td>5.144</td>
<td>104.838</td>
</tr>
<tr>
<td>Antofagasta</td>
<td>104.838</td>
<td>63.252</td>
<td>41.586</td>
<td>36.487</td>
</tr>
<tr>
<td>Atacama</td>
<td>63.497</td>
<td>36.487</td>
<td>27.010</td>
<td>81.519</td>
</tr>
<tr>
<td>Coquimbo</td>
<td>146.853</td>
<td>78.590</td>
<td>65.334</td>
<td>95.549</td>
</tr>
<tr>
<td>Valparaíso</td>
<td>280.580</td>
<td>180.075</td>
<td>100.505</td>
<td>157.620</td>
</tr>
<tr>
<td>Metropolitana de Santiago</td>
<td>1.344.447</td>
<td>785.890</td>
<td>558.557</td>
<td>173.981</td>
</tr>
<tr>
<td>Libertador Bernardo O`Higgins</td>
<td>157.620</td>
<td>95.549</td>
<td>62.071</td>
<td>103.241</td>
</tr>
<tr>
<td>Maule</td>
<td>173.981</td>
<td>103.241</td>
<td>70.740</td>
<td>130.071</td>
</tr>
<tr>
<td>Bío-Bío</td>
<td>347.546</td>
<td>217.475</td>
<td>130.071</td>
<td>188.248</td>
</tr>
<tr>
<td>Araucanía</td>
<td>188.248</td>
<td>109.553</td>
<td>78.695</td>
<td>82.287</td>
</tr>
<tr>
<td>Los Ríos</td>
<td>82.287</td>
<td>43.934</td>
<td>38.353</td>
<td>109.553</td>
</tr>
<tr>
<td>Los Lagos</td>
<td>174.240</td>
<td>93.619</td>
<td>80.621</td>
<td>174.240</td>
</tr>
<tr>
<td>Aisén Del General Carlos Ibáñez Del Campo</td>
<td>25.445</td>
<td>12.401</td>
<td>13.044</td>
<td>12.401</td>
</tr>
<tr>
<td>Magallanes Y De La Antártica Chilena</td>
<td>28.199</td>
<td>16.269</td>
<td>11.930</td>
<td>28.199</td>
</tr>
</tbody>
</table>

Source: NIR, Saludteprotege

¹: 1st semester (January-July) of each year
National Immunization Registry

Modules
National Immunization Registry

Modules
National Immunization Registry

Reports Sites

User-friendly tools that allow the handling of timely information, which, in turn, has allowed the empowerment of decision-makers at different levels
National Immunization Registry

Achievements and uses for the National Immunization Program (NIP)

• It allows generating individualized searches of the absentees/defaulters that have their next vaccine due, since the system generates these reports.
• It allows a more coordinated effort with epidemiology in reviewing case data for vaccine-preventable disease surveillance.
• It allows the digital record keeping of each individual case history.
• It allows for real-time data in places with connectivity.
• It allows for instant reviews of campaign coverage.
• It allows for report extraction in Word format, very useful for the management at the central and regional level. (Health Service and Regional Secretary of Health (SEREMI))
National Immunization Registry

Conclusion

• The success of the project is based on the coordinated work of the technical, immunization program and statistics departments, as well as the simultaneous involvement of the public and private sectors in the RNI implementation.
National Immunization Registry Challenges

Interoperabilidad
Nominal Immunization Registry

Challenges

Interoperability
Thank you.