

Routine immunization profile Estonia

Progress towards achieving European Vaccine Action Plan goals, 2017

| Goal | Indicator | Status | Goal | Indicator | Status |
|----------|--|--------------------|----------|--|-------------------|
| 1 | Sustain polio-free status ^a (Current risk) | Yes (Low) | 4 | Meets vaccination coverage targets DTP3 national immunization coverage $\geq 95\%$ ^d $\geq 90\%$ DTP3 coverage achieved in $\geq 90\%$ of districts ^e | No No Yes |
| 2 | Measles elimination status ^b | Eliminated | 5 | Make evidence-based decisions about introduction of new vaccines* ^e NITAG made a recommendation about PCV NITAG made a recommendation about RV NITAG made a recommendation about HPV | Yes |
| | Rubella elimination status ^b | Eliminated | | | Yes Yes Yes |
| 3 | Control hepatitis B infection ^c | Validation pending | 6 | Achieve financial sustainability of the national immunization programme** ^c | Yes |

*New vaccines introduced or not introduced based on NITAG evidence-based recommendations

**Country self-sufficient for procuring routine vaccines

Demographic, income and health expenditure summary, 2017

| | |
|---|-----------|
| Total Population ^f | 1 309 632 |
| Live births | 13 936 |
| Surviving infants | 13 898 |
| <5 years | 66 958 |
| <15 years | 214 355 |
| Neonatal mortality rate (per 1000 live births) ^f | 1.2 |
| Infant mortality rate (per 1000 live births) ^f | 2.1 |
| Number of districts ^e | 15 |
| GNI (per capita, in USD) ^g | 18 670 |
| Health spending as % of total government expenditure ^g | 12 |

Immunization schedule, 2017^e

| | |
|--------|---------------------------------------|
| Birth | BCG, HepB_Pediatric |
| 1M | HepB_Pediatric |
| 2M | Rotavirus |
| 3M | DTaPHibIPV |
| 4M | DTaPHibIPV |
| 4.5M | Rotavirus |
| 5M | DTaPHibIPV |
| 6M | DTaPHibIPV, HepB_Pediatric, Rotavirus |
| 1Y | MMR |
| 2Y | DTaPHibIPV |
| 6-7Y | DTaPIPV |
| 13Y | MMR |
| 15-16Y | Tdap |
| 25Y | Td* |

*Repeats every 10 years

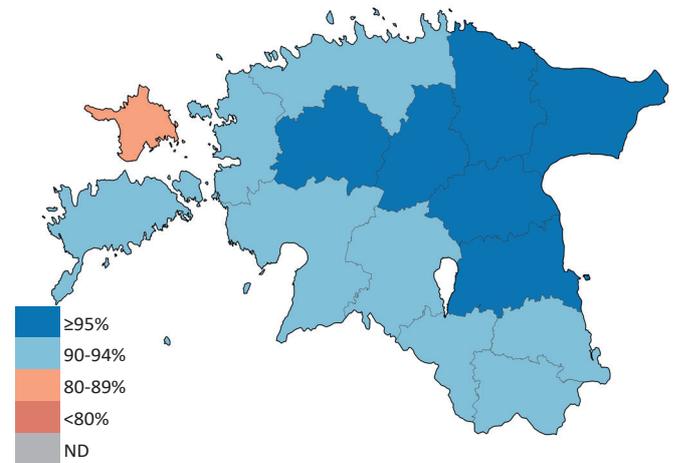


Vaccine coverage estimates, 2013-2017^d

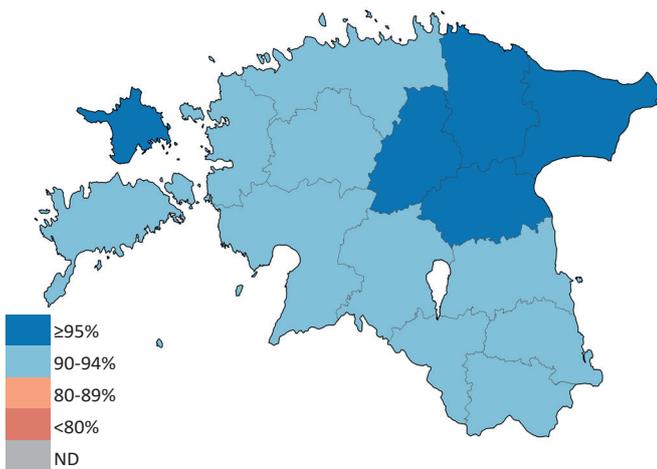
| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------|------|------|------|------|------|
| BCG | 96 | 95 | 95 | 95 | 94 |
| HepB-BD | ND | ND | ND | ND | ND |
| DTP1 | 96 | 95 | 94 | 94 | 94 |
| DTP3 | 94 | 93 | 93 | 93 | 93 |
| HepB3 | 93 | 93 | 91 | 93 | 92 |
| Hib3 | 94 | 93 | 93 | 93 | 93 |
| Pol3 | 94 | 93 | 93 | 93 | 93 |
| PCV3 | NR | NR | NR | NR | NR |
| Rotac | NR | 32 | 64 | 85 | 87 |
| RCV1 | 94 | 93 | 93 | 93 | 93 |
| MCV1 | 94 | 93 | 93 | 93 | 93 |
| MCV2 | 92 | 93 | 92 | 92 | 91 |

100 50 0 ND NR

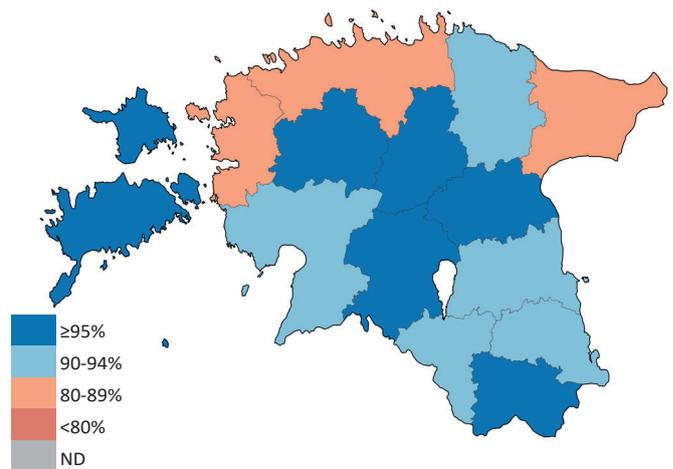
DTP3 reported coverage by subnational area[†], 2017^e



MCV1 reported coverage by subnational area[†], 2017^e



MCV2 reported coverage by subnational area[†], 2017^e



Number of reported cases of vaccine-preventable diseases, 2013-2017^e

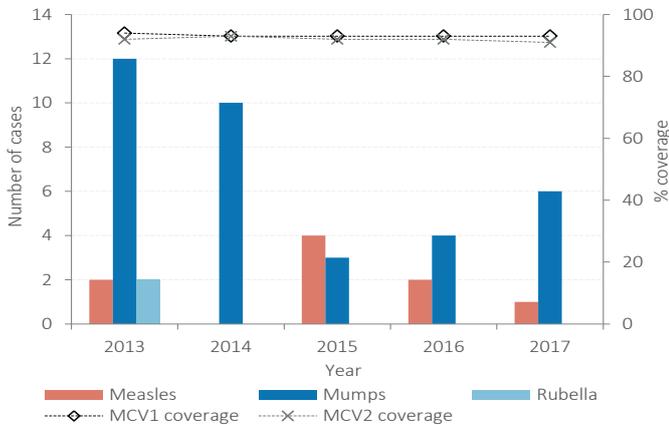
| | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------------|------|------|------|------|------|
| Measles | 2 | 0 | 4 | 2 | 1 |
| Mumps | 12 | 10 | 3 | 4 | 6 |
| Rubella | 2 | 0 | 0 | 0 | 0 |
| Congenital rubella syndrome | 0 | 0 | 0 | 0 | 0 |
| Diphtheria | 0 | 0 | 0 | 0 | 0 |
| Tetanus | 1 | 0 | 0 | 0 | 1 |
| Pertussis | 55 | 43 | 77 | 74 | 56 |
| Hepatitis A | 6 | 12 | 6 | 7 | 45 |
| Varicella | 6299 | 8258 | 6819 | 5846 | 8088 |

Surveillance with laboratory confirmation of cases, 2017^e

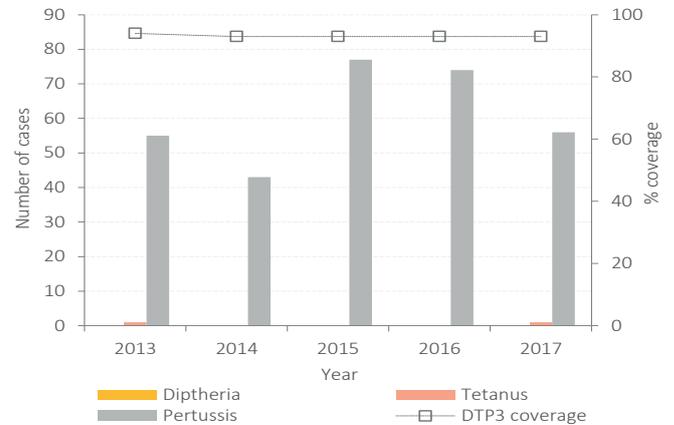
| | |
|--|-----|
| Measles | Yes |
| Rubella | Yes |
| Congenital rubella syndrome | Yes |
| Rotavirus | Yes |
| Invasive meningococcal disease | Yes |
| Invasive pneumococcal disease | Yes |
| Invasive <i>Haemophilus influenzae</i> disease | Yes |

Note: Case-based surveillance (with laboratory confirmation of cases) assessed for measles, rubella, and congenital rubella syndrome. Hospital-based sentinel surveillance and/or population-based surveillance (both with laboratory confirmation of cases) assessed for rotavirus, invasive meningococcal disease, invasive pneumococcal disease, and invasive *Haemophilus influenzae* disease.

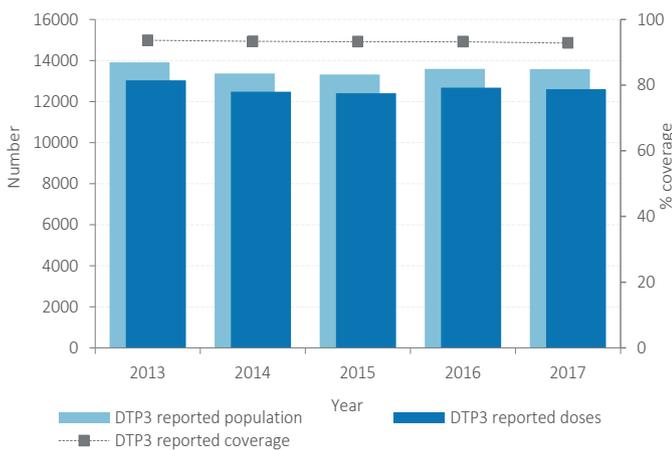
Number of reported measles, mumps and rubella cases^e and MCV coverage estimates^d, 2013-2017



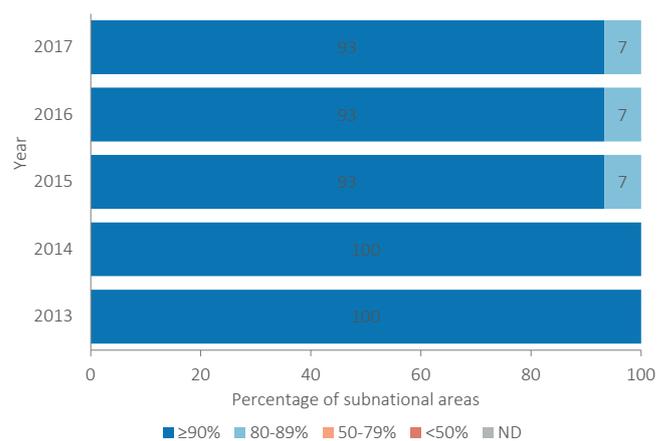
Number of reported diphtheria, tetanus and pertussis cases^e and DTP3 coverage estimates^d, 2013-2017



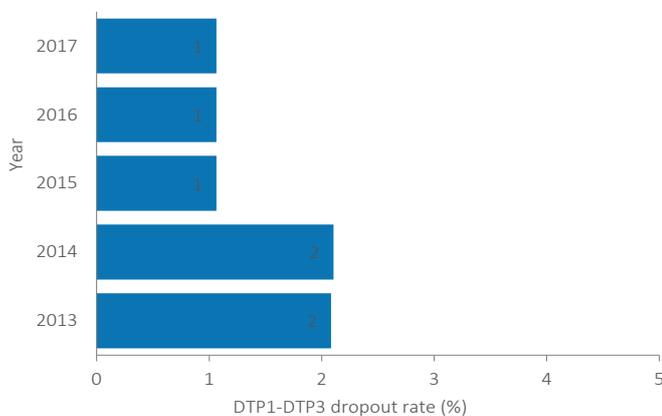
Reported target population, reported number of DTP3 doses administered and DTP3 reported coverage^e, 2013-2017



Percentage of districts by DTP3 reported coverage^e, 2013-2017



DTP1-DTP3 dropout rate, 2013-2017^d



Note: Dropout rate is calculated using WUENIC

Immunization system characteristics, 2017

| | |
|--|-----|
| Sustained access to WHO accredited polio, measles, and rubella laboratories ^h | Yes |
| NITAG in place that meets six WHO criteria ^e | Yes |
| National system in place to monitor AEFIs ^e | Yes |
| Communication plan in place to respond to vaccine safety-related events ^e | Yes |
| Vaccine hesitancy assessment performed within last 5 years ^e | No |
| Mandatory proof of immunization at school entry ^e | Yes |

Note: The six WHO NITAG criteria are 1. legislative or administrative basis for the advisory group; 2. formal written terms of reference; 3. at least five different areas of expertise represented among core members; 4. at least one meeting per year; 5. circulation of the agenda and background documents at least one week prior to meetings; 6. mandatory disclosure of any conflict of interest

Vaccine stockouts by administrative level^a, 2013-2017

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------|------|------|------|------|----------|
| BCG | No | No | ND | No | ND |
| DTP | No | No | Both | Both | National |
| HepB | No | No | ND | No | ND |
| Hib | No | No | ND | No | ND |
| Pneumo | ND | No | ND | ND | ND |
| Rota | ND | No | ND | No | ND |
| OPV | NR | NR | NR | NR | NR |
| IPV | No | No | ND | No | ND |
| Measles | No | No | ND | No | ND |
| HPV | * | * | * | No | ND |
| TT | No | No | ND | No | ND |

| | |
|--|---------------------------------|
| ■ | No stockout |
| ■ | Subnational level stockout only |
| ■ | National level stockout only |
| ■ | Stockout at both levels |
| ■ | NR |
| ■ | ND |

*Data on HPV stockouts have only been collected in JRF since 2016

Abbreviations

| | | | |
|---------|---|-------|---|
| AEFI | Adverse event following immunization | MCV1 | measles-mumps-rubella vaccine, first dose |
| BCG | Bacille Calmette-Guerin vaccine for tuberculosis | MCV2 | measles-mumps-rubella vaccine, second dose |
| CRS | congenital Rubella Syndrome | MMR | measles-mumps-rubella vaccine |
| DT | diphtheria-tetanus-containing vaccine | ND | Data not available |
| DTP | diphtheria-tetanus-pertussis-containing vaccine | NITAG | National Immunization Technical Advisory Group |
| DTP1 | diphtheria-tetanus-pertussis-containing vaccine, first dose | NR | Not relevant as vaccine not included in immunization schedule |
| DTP3 | diphtheria-tetanus-pertussis-containing vaccine, third dose | OPV | oral polio vaccine |
| GNI | Gross national income | PCV | pneumococcal conjugate vaccine |
| HepB | hepatitis B | PCV3 | pneumococcal conjugate vaccine, third dose |
| HepB3 | hepatitis B vaccine, third dose | Pol3 | polio-containing vaccine, third dose |
| HepB-BD | hepatitis B vaccine, birth dose | RCV1 | rubella-containing vaccine, first dose |
| Hib | Haemophilus influenzae type b | Rotac | rotavirus vaccine-complete series |
| Hib3 | Haemophilus influenzae type b vaccine, third dose | Td | tetanus-diphtheria-containing vaccine |
| HPV | human papillomavirus | TT | tetanus toxoid vaccine |
| IPV | inactivated polio vaccine | W,M,Y | Weeks, Months, Years |
| MCV | measles-containing vaccine | | |

Data sources

- a European Regional Commission for Certification of Poliomyelitis eradication (RCC) meeting report: www.euro.who.int/32ndRCC
- b European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/7thRVC
- c European Vaccine Action Plan 2015-2020 Midterm report
- d WHO/UNICEF Estimates of National Immunization Coverage (WUENIC): (http://www.who.int/immunization/monitoring_surveillance/data/en/)
- e WHO/UNICEF Joint Reporting Form on immunization (JRF)
- f World Population Prospects: The 2017 Revision, New York, United Nations
- g World Bank, World Development Indicators
- h Polio Laboratory Network: www.euro.who.int/poliolabnetwork & Personal communication based on annual accreditation process of the European Measles and Rubella Laboratory Network

Map disclaimer

† The boundaries and names shown and the designations used on the maps do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.