

3. NOTIFIED CASES OF VACCINE-PREVENTABLE DISEASES

Communicable diseases, such as measles, hepatitis B and many others, pose major threats to the health of European citizens, although vaccination can efficiently prevent these diseases (EC, 2018).

Measles is a highly infectious disease of the respiratory system, caused by a virus, which can lead to severe complications, including pneumonia, encephalitis, diarrhoea and blindness. All EU Member States and other countries around the world have adopted the goal to eliminate measles. In the 12-month period preceding the COVID-19 outbreak (between March 2019 and February 2020), 11 576 cases of measles were reported to the European Surveillance System by the 27 EU countries, Iceland, Norway, Switzerland and the United Kingdom. Following the COVID-19 pandemic and the confinement measures, there has been a sharp decrease in the reporting of measles cases with the number falling to 692 in the six-month period from March to August 2020 in the same group of countries (ECDC, 2020).

The average rate across EU countries in 2019 was 3.9 cases per 100 000 population, but with wide variations (Figure 3.16). Lithuania reported the highest number of new cases and highest rate (29.8 cases per 100 000 population), followed by Bulgaria with a rate of 17.6 per 100 000 population. An outbreak of measles started in 2019 in Lithuania, most notably in the cities of Kaunas and Vilnius. The authorities responded with a large vaccination campaign to contain the outbreak and prevent any future epidemic. Vaccination against measles is very effective, and the vast majority of newly diagnosed people in Europe were not vaccinated. While most measles cases are among infants under one year old as they are often still too young to have received the first dose of vaccine, about 45% of cases occur among adults.

Hepatitis B is a liver infection caused by a virus transmitted by contact with blood or body fluids of an infected person. People who are infected can go on to develop a chronic infection, especially those who are infected at younger ages. People with chronic hepatitis B are more likely to suffer from liver cirrhosis and liver cancer. About 24 500 hepatitis B cases were reported in EU countries, Iceland, Norway, Switzerland and the United Kingdom in 2018, nearly 10% down from 26 900 cases in 2017 (ECDC, 2020b). Latvia had the highest notification

rates, with 1.5 cases per 100 000 population (Figure 3.17). The rates were also high in the Slovak Republic, Malta, Germany, and Spain, the United Kingdom and Turkey.

Reported cases of hepatitis B are higher in men than in women. About one-third of all reported hepatitis B cases occurs among people aged 25-34. For acute infections, heterosexual transmission is the most common route of transmission, followed by nosocomial transmission, transmission among men who have sex with men, injuries and drug injection. Mother-to-child transmission is the most common route for chronic cases. The most effective prevention is vaccination (see indicators on childhood vaccination in Chapter 6).

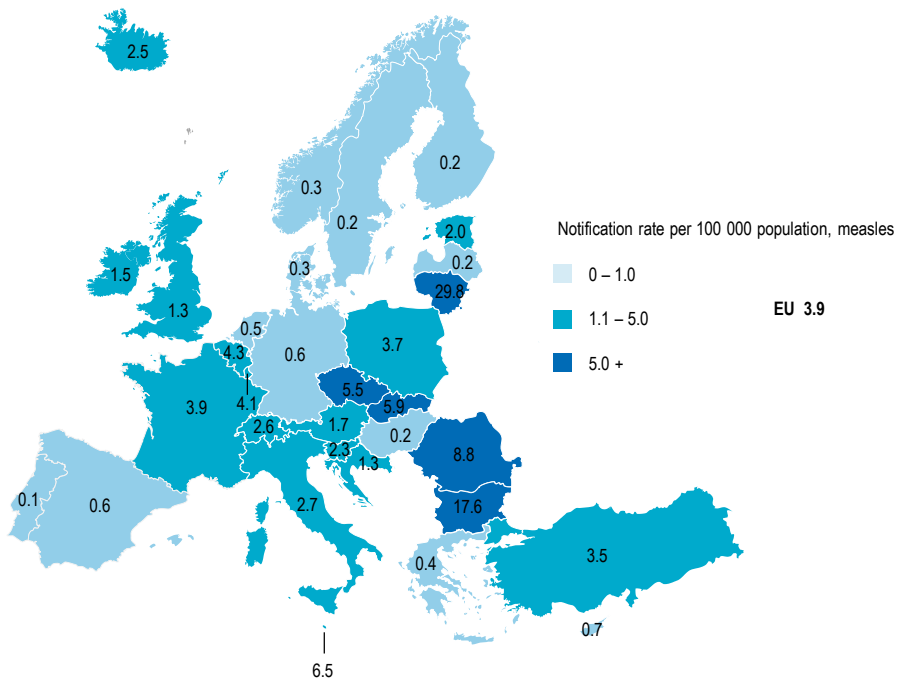
Definition and comparability

Mandatory notification systems for communicable diseases, including measles and hepatitis B, exist in most European countries, although case definitions, laboratory confirmation requirements and reporting systems may differ. Measles and hepatitis B notification is mandatory in all EU member states. Caution is required in interpreting the data because of the diversity in surveillance systems, case definitions and reporting practices. For hepatitis B, the data for five countries (France, Greece, Hungary, Lithuania and Spain) only include acute cases, not chronic cases, resulting in a large under-estimation. Variation between countries also likely reflects differences in testing as well as differences in immunisation and screening programmes.

References

- EC (2018), *Proposal for a council recommendation on strengthened cooperation against vaccine preventable diseases*, European Commission, Brussels.
- ECDC (2020a), *Communicable Disease Threats Report on Measles*, Stockholm.
- ECDC (2020b), *Hepatitis B – Annual epidemiological report for 2018*, Stockholm.

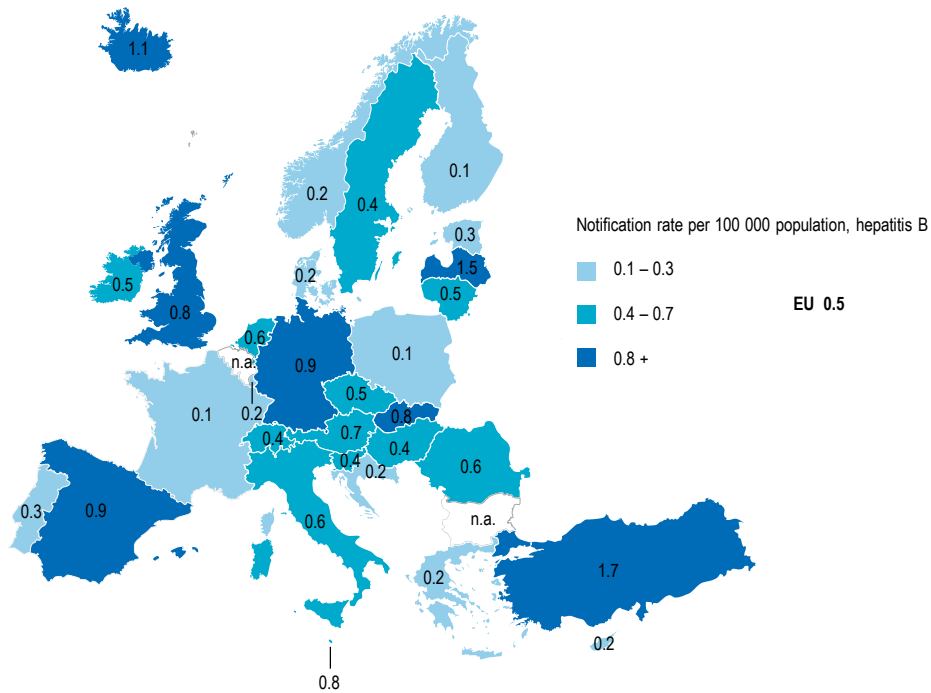
Figure 3.16. Notification rate of measles, 2019



Source: ECDC Surveillance Atlas of Infectious Diseases.

StatLink <https://stat.link/e3f0ah>

Figure 3.17. Notification rate of hepatitis B, 2018 (or nearest year)



Note: Data for France, Greece, Hungary, Lithuania and Spain only include acute cases, not chronic cases, resulting in a large under-estimation.
 Source: ECDC Surveillance Atlas of Infectious Diseases.

StatLink <https://stat.link/xd1o8y>



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