Public health surveillance is the continuous process of collection, analysis and interpretation of data, and the subsequent dissemination of this information to policy makers, **healthcare and other professionals**.

Communicable disease surveillance produces timely information for action. The control of communicable disease involves not only doctors and nurses, but individuals from a wide variety of backgrounds, eg farmers, vets, water engineers, environmental health officers, and those working in the food industry.

Epidemiological surveillance requires the systematic collection of data. This is accomplished mainly by making use of data generated locally and collected centrally, eg the reporting by medical microbiologists of laboratory-confirmed infections.

Surveillance systems

The PHA participates in various national and international enhanced surveillance systems, such as meningococcal disease, tuberculosis, and legionella. The agency also operates an enhanced influenza surveillance system from October to April.

There are other national data collecting systems to which the agency has immediate access. All of these are used for surveillance, and data obtained through different systems are often complementary.

The PHA receives data from several sources – primarily clinicians, hospital laboratories, consultants in communicable disease control and environmental health officers.

Northern Ireland is fortunate to have a tradition of voluntary central reporting of laboratory-confirmed infections, and the PHA acknowledges the contribution of laboratories and other organisations to regional surveillance of communicable disease.

Monitoring and reporting:

Weekly reporting:

- Health protection situational awareness (HPSA) report
- COVID-19 genomics bulletin
- <u>Respiratory surveillance report</u>

Monthly reporting:

- Measles infection update
- Pertussis (whooping cough) update
- Scarlet fever and IGAS

Annual reporting:

- Seasonal influenza annual surveillance reports
- Epidemiology of tuberculosis (TB) in Northern Ireland: annual surveillance report 2025 (data up to end of 2024)
- Legionellosis: Northern Ireland surveillance report 2014 to 2024

The data listed is for a selection of infections we monitor and report on:

- Health protection situational awareness report
- Antimicrobial use and resistance (AMR)
- Healthcare Associated Infections (HCAIs)
- <u>Blood-born viruses and sexually transmitted infections (STIs, HIV/AIDS, Hep B</u> and C)
- <u>Hepatitis</u>
- Gastrointestinal infections (Brucellosis, Hepatitis A and E)
- Group A Streptococcus
 - Scarlet fever and IGAS update
- Group B Streptococcus
- Measles infection update
- <u>Meningitis</u>
- Meningococcal disease
- Respiratory infections data (weekly, monthly and annual reports)
 - Respiratory surveillance report
 - Seasonal Influenza (flu)
 - Avian influenza (bird flu)
 - COVID-19 genomics bulletin
 - Legionellosis

- Pertussis (whooping cough) update
- Respiratory Syncytial Virus (RSV)
- Tuberculosis (TB) reports
- Notifications of Infectious Diseases (NOIDs) and archive
- Vaccination coverage

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