

Towards the National Platform for Genomic Surveillance

- **Project PLEpiSeq "Towards the National Platform for Genomic Surveillance"** is carried out by the National Institute of Public Health NIH - National Research Institute, Warsaw, Poland from 2022 to 2025.
- The project's primary goal is to **build the framework for long-term implementation of genomic epidemiology in Poland through the development of PLEpiSeq platform.** The platform will facilitate the whole genome sequencing (WGS) of pathogens for national epidemiological surveillance.
- The PLEpiSeq platform aims to enhance national surveillance of infectious diseases, particularly outbreak investigation, through the use of complex WGS analysis.

Whole genome sequencing (WGS) has proven to be an effective epidemiological tool for improving epidemiological surveillance and response to infectious disease threats.

Initially, the platform will support full-genome sequence analysis of priority pathogens such as the SARS-CoV-2 virus, influenza A and B viruses, RSV, and bacteria of the genus *Salmonella*, *Campylobacter*, and verotoxin-producing *Escherichia coli* (STEC/VTEC).

The platform is being created for laboratories of public health sector in Poland. The PLEpiSeq platform is intended for laboratories skilled in WGS as well as those looking to expand their capacity in this area. The project is dedicated to laboratories of State Sanitary Inspection. However, other medical and research laboratories using WGS methodology in microbiology are also welcome.

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Science Institute ⁶

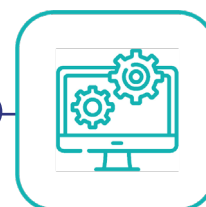
The PLEpiSeq platform will offer user-friendly solutions for:



Accessing and viewing the findings of complex bioinformatic analysis and visualization



Management and storage of WGS data along with relevant metadata in a single repository



Rapid sharing of WGS data with other users and its transfer to the ECDC and other public repositories

We will provide support to users of the PLEpiSeq platform through the **"PLEpiSeq Virtual Helpdesk"**. Through this support system, we will help them solve technical and real-world challenges related to the use of WGS in epidemiological surveillance of infectious diseases. The project will also involve training for public health professionals in "wet" lab as well as bioinformatic analysis and interpretation of WGS results.

ADDITIONAL INFORMATION:



Co-funded by
the European Union



Ministry of Health
Republic of Poland

"Towards the National Platform for Genomic Surveillance" - Project 101113409 - PLEpiSeq co-financed by the European Union under the EU4H Project Grants and the Ministry of Health.

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More information about the project can be found at: <https://www.pzh.gov.pl/projekty-i-programy/plepiseq/>