WHONET

A free desktop Windows application for the management and analysis of microbiology laboratory data, primarily focused on antimicrobial resistance surveillance.

https://whonet.org/

Overview

WHONET is a free, desktop Windows application developed and supported by the WHO Collaborating Centre for Surveillance of Antimicrobial Resistance at the Brigham and Women's Hospital in Boston. The software's principal goal is to enhance the local use of laboratory data and promote national and international collaboration through data exchange for infectious disease surveillance.

Used by over 2,300 laboratories in more than 130 countries, WHONET supports surveillance efforts in human, public health, animal health, and food laboratories. It is available in over 50 languages.

Key Features and Capabilities

Laboratory Configuration: Allows customization of the software to indicate tested antimicrobials, patient care areas served, and microbiological alerts for unusual or important resistance phenotypes.
Data Management: Supports manual data entry and clinical reporting, as well as data retrieval and correction.
Data Import (BacLink): Includes the BacLink utility, which captures and standardizes data from existing laboratory information systems (LIS), laboratory instruments, and other desktop applications, eliminating the need for double-entry.
Data Analysis: Offers a user-friendly interface for various analyses, including isolate line-listings, organism frequencies, antimicrobial susceptibility test statistics (%RIS and antibiograms), zone diameter/MIC histograms, and antibiotic resistance profiles.
Outbreak Detection: Features alert mechanisms for the detection of unlikely results, quality assurance problems, and possible hospital or community outbreaks.
Standard Support: Includes support for the latest CLSI (human and veterinary) and EUCAST (human) antimicrobial susceptibility test breakpoints.
Public Health Reporting: Facilitates data exports and reporting to international surveillance networks such as WHO GLASS and FAO InFARM.
Data Security: Provides a data encryption feature to protect patient confidentiality when sharing data files.

Target Users and Use Cases

WHONET is primarily used by laboratory staff, infectious disease and infection control teams, clinicians, epidemiologists, and national policymakers in the human, animal, food, and environmental sectors. Its main use cases include: local, national, and global antimicrobial resistance surveillance; guiding empiric therapy and antibiotic policy; identifying hospital and community outbreaks; and continuous quality improvement in laboratory testing practices.

Key Features

- Antimicrobial Resistance (AMR) Surveillance
- Laboratory Configuration & Customization
- Data Import and Standardization (BacLink)
- Data Analysis (Antibiograms, %RIS, Histograms)
- Outbreak/Cluster Detection and Alerts
- Support for CLSI and EUCAST Breakpoints
- Public Health Reporting (WHO GLASS, FAO InFARM)
- Data Encryption for Patient Confidentiality

Pricing

Model: free

Free software developed and supported by the WHO Collaborating Centre for Surveillance of Antimicrobial Resistance.

Target Company Size: medium, enterprise

Integrations

WHO GLASS, FAO InFARM, CLSI, EUCAST, BacLink

Compliance & Certifications

CLSI Standards Support, EUCAST Standards Support