

What is ITIS?

Integrated Tuberculosis Information System (ITIS) is a web-based system and a tool for data collection, processing, reporting, and use of the information necessary for improving Tuberculosis control efforts in the Philippines.



PRIMARY URL: itis.doh.gov.ph
ALTERNATE URL: itisdoh.pbsp.org.ph

System Objectives

- To integrate all TB initiatives (Drug-Susceptible TB, Drug Resistant TB, TB in Children, TB in Prisons, TB/HIV, and Laboratory, Stock Inventory)
- To improve process efficiency and effectiveness of implementing the NTP activities.
- To ensure the quality of data being recorded and/or reported for the program.

Benefits

- **Increased Efficiency.** Productivity in the workplace is enhanced in patient record retrieval, records keeping, report generation, laboratory processing, program administration and referrals
- **Improves Accuracy in Documentation and Reporting.** ITIS interface captures all the TB data and can generate all types of NTP reports. It is also equipped with in-system validation features based from the NTP's MOP.
- **Facilitates Better Clinical Decision Making Towards Improved Quality of Care.** The different modules allows for patient clinical data to be viewed and analyzed at different levels of health care. Also, there is an improved ability to monitor compliance to medications and treatment regimen.
- **Supports Operations Planning and Management.** Improved access to quality data to inform healthcare service and workforce planning and development.

System Milestones

Q4, 2011
Start of conceptualization and development

2012
Pilot Testing to NCR, RO3, and RO6

2013-2014
Expansion to RO1, RO10, RO12 and PMDT facilities ▶▶ Transition of ITIS to MOP 5th Edition ▶▶ Release of First ITIS Offline Version

2015
Nationwide TOT and Roll-out Trainings ▶▶ Development of Laboratory Module ▶▶ Development and Launching of Aggregate Reporting ▶▶ Development of ADR Reporting

2016
Expansion to Culture and DST Facilities ▶▶ Launching of ITIS Android Application ▶▶ Integration with iClinicSys ▶▶ Enhancement of ITIS Dashboard and GIS

2017
Expansion to Laboratory Facilities ▶▶ Software Integration to PVIMS, GX Alert and TB Consult ▶▶ Automation of NTP Reporting Deadline ▶▶ Implementation of Referral ▶▶ System Launching of NTP Website ▶▶ Development and Pilot Implementation of Auto-sync Feature ▶▶ Development of Mandatory TB Notification System ▶▶ ITIS E-Manual

Operational Requirements

Online Users: Computer with internet connection of at least 1 mbps, with 2HGz processor and 4GB memory; A Google Chrome web browser

Offline Users: Computer with 2HGz processor, with 4GB memory and 500 GB internal storage running in Windows 7 or up; A Google Chrome web browser; Internet connection for sending of dispatch file.

Android App Users: Android Device (Mobile or Tablet) – Android Version 3.0 / Honeycomb; Reliable internet connection of at least 1 mbps; ITIS User Account

Legal Basis

Administrative Order 2015-0024: Implementing Guidelines for ITIS as of June 5, 2015. Serves as the backbone of ITIS implementation. It outlines the roles and responsibilities of different agencies in the system utilization.

Fast Stats (As of 10 Nov 2017)



9,920 Active System Users



3,026 Online Sites
242 Offline Sites

System Modules



Case Management. Captures the patient's data which includes the patient's demographic profile, TB encounter/s, examinations and treatment information.



Laboratory. Intended for the laboratory personnel to facilitate receiving of incoming requests and real-time encoding of examination results once available.



Reports. Features the generation of all NTP reports as per NTP suited according to the level of reporting facility. Generated documents are printable and convertible to Excel (for data analysis) and PDF.



Data Sync. A tool used to synchronize the local database (offline users) with the central database.



NTP Directory. Serves as an access point to the list of NTP Facilities and NTP Personnel Nationwide.



Administration. Contains the tools for system administrators in order to manage user accounts, audit trails and library.

Future Plans

Development of ITIS iOS version ►► Use of new programming tool to improve system performance ►► Integration to PhilHealth ►► Automated reporting of regional accomplishments ►► Regional Administrator Module ►► Use of QR code ►► Maintenance of TB Mandatory Notification System

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Features



Free Software. This is developed by Knowledge Management and Information Technology Service (KMITS) – DOH having NTP as the system owner. Software use and maintenance cost is completely free of charge.



Compliance to Standards. ITIS is developed based on health data standards for system interoperability with DOH (specially with Philippine Health Insurance Corporation).



Centralized and Secured Data Storage. All the data being received is stored at the KMITS data center which servers are armed with an enterprise level of security.

- **Data Recovery.** Scheduled data back-up twice per day using internal and external storage. Dedicated storage servers are used to gather archives.
- **Failsafe / Net Security Policy.** – Using a load balancer, data for both incoming/outgoing traffic are equally distributed in all 3 ISPs so data transferring will not be interrupted. Firewall policy features are used to close unwanted ports not used by ITIS.



Ease of Access. The web-based platform is accessible using laptop, computer desktop unit, tablet, and smart phones.



Inter-operability with Other Systems. ITIS architecture can securely integrate with other information systems. Current integration includes the following: iClinicsys (Integrated Clinic Information System), eFHSIS (Electronic Field Health Services Information System), PViMS (Pharmacovigilance Monitoring System), GX Alert, TB Consult.



Hybrid Software. The system has two versions – offline and online depending on the availability of internet connection at the facility.



Android Platform. The web technology features of ITIS is replicated into an android application to enable mobile encoding for users.



Dashboard and GIS Capability. Displays graphical data from submitted official reports. Features easy generation of programmatic indicators.



Printable Forms. NTP electronic forms are printable - screening forms, treatment cards, laboratory forms and TB registers.



Electronic Manual. The ITIS user guide which is made electronic for easy access. This is available for both offline and online version users.



User Friendly Interface with Tooltip Guides. Users were guided with step labels and the system interface is equipped with tool tip guides.