ePT

Online Proficiency Testing (PT) or External quality assessment (EQA)

e-Tool for evidence-based corrective actions

INTRODUCTION

What is ePT, and how can it help?

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Proficiency Testing (PT) or External quality assessment (EQA) is the challenge of the effectiveness of a laboratory's quality management system.

PROFICIENCY TESTING CYCLE

Enrollment

Panel Distribution

Results Submitted

Data Analysis

Feedback

Corrective Actions

PT Program
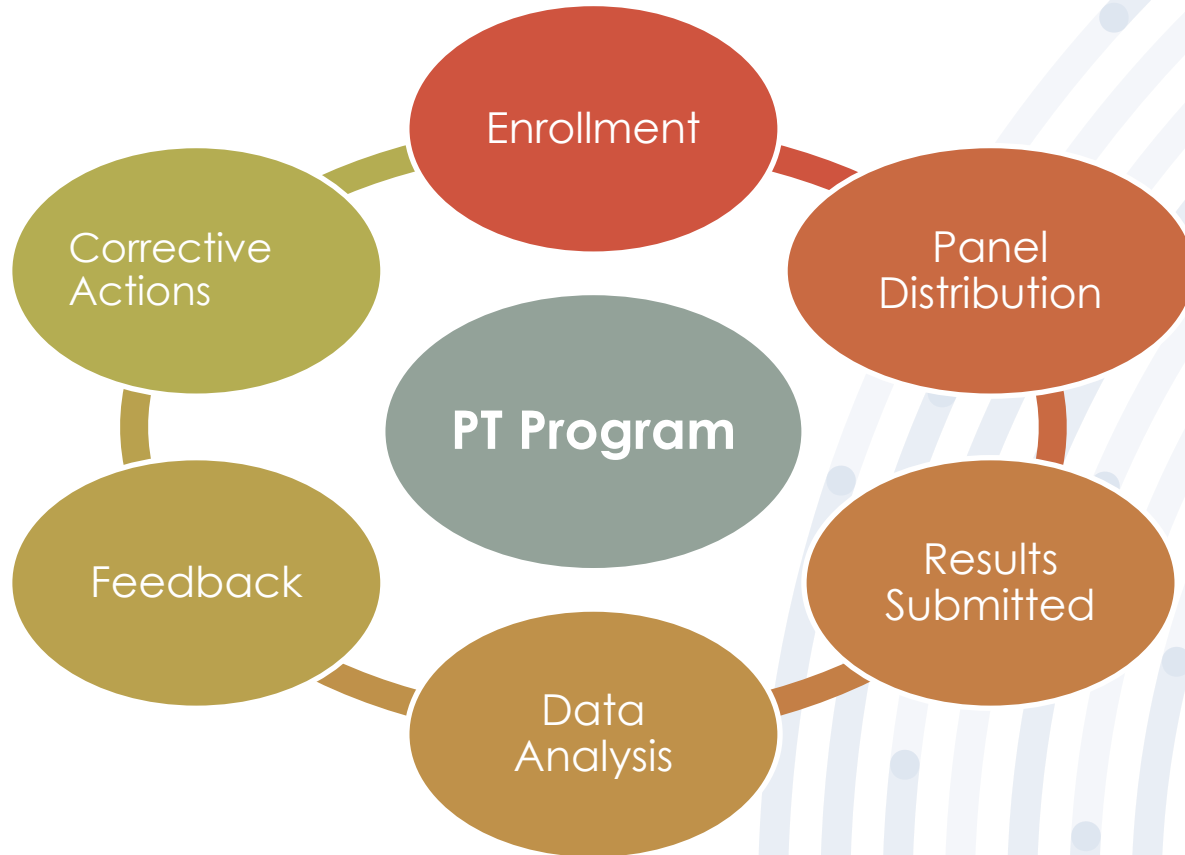
PT is a highly data-driven activity

PT Data helps in

- Measuring participant performance
- Measuring gap in testing quality
- Moving towards accreditation
- Identifying quality improvement initiatives
- Understanding quality of testing from participating laboratories

ROLES AND RESPONSIBILITIES

PT PROVIDER	PARTICIPANT/TESTING SITE	SUPPORTING OFFICER
• Train testing providers • Provide PT panels • Analyze PT results submitted • Generate and review PT Reports • Provide timely feedback to testing sites • Provide guidance for corrective actions • Conduct sites supervision	• Verify panel components upon receipt • Rehydrate DTS panel • Test according to country algorithm • Submit report within deadline • Report problems with testing • Review feedback report • Implement corrective actions	• Assist with training of testers • Distribute DTS PT packs • Collect DTS PT results forms from sites • Assist with PT data entry and analysis • Distribute DTS PT feedback report to sites • Assist with providing corrective actions • Assist with site visits

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What is ePT?

ePT is a web-based software application, used to manage Proficiency Testing with the following objectives :

- Provide early warning for systematic problem.
- Increase confidence in the quality of a laboratory's performance.
- As a quality indicator for stakeholders at various levels.
- Quality evaluation and improvement of the testing process.
- Demonstrate employee competency.
- To monitor trends in results.

Key Advantages

- Reduce overall turnaround time for PT
  - Web-based system reduces postal delay in getting panel response to PT Provider
  - Helps PT participants in receiving PT Result and relevant corrective actions on time
- Identifying relevant corrective actions
  - Identify corrective actions for PT Provider to improve quality of testing
- Easy reporting analysis and data management for PT Program
  - Retains and provides historical data
  - Useful reports/analysis to help both PT provider and participants

Common PT challenges and solutions

How can ePT help in overcoming PT challenges?

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High workload for PT provider to enter responses, evaluate and respond with the reports (individual and final)

Challenge 1 : High Workload

CHALLENGE

HOW ePT CAN HELP

Usually, there are thousands of participants participating in the PT Program across the country. These participants send the paper-based result to the PT provider. Entering all responses on an Excel sheet, evaluating responses, creating reports using mail merge, and sending takes more than 3 months, and has no time to work on corrective action before the next shipment.

- Participants can respond online, or PT Hub can enter data for PT participants to reduce the data entry workload for PT providers.
- Evaluation is done by clicking the button and the result can be shared online to reduce turnaround time for the PT program.

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Large volume of participants, widely distributed in the country

Challenge 2 : No. of participants across the country

CHALLENGE	HOW ePT CAN HELP

CHALLENGE

PT programs have participants across the country/region.

Real-time tracking of the status of response rate is difficult with the manual system. This limit the ability to make necessary correction in the program in real-time and decreases the participation rate.

HOW ePT CAN HELP

- During the response time, ePT provide statistics of the number of response and generate reminder as e-mail for a participant not responded. This helps to increase the response rate of the PT program.
- ePT provides historical information on the PT performance of a participant. It also provides regional performance. This helps the program manager to arrange workshops and training for improving PT performance.

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Results depend on specific testing algorithm, especially for HIV Diagnosis and Recency testing. This creates challenges in response in the evaluation of the response.

Challenge 3 : Evaluation of Responses

HIV testing algorithm is specific to the country. It depends on multifactor such as sensitivity and specificity of test kits and the prevalence of disease in the country. This adds a layer of complexity to the evaluation and provides corrective action to participants.

- ePT algorithm for HIV diagnosis is customizable and can support the country's National algorithm.
- It can also be adapted for combo tests as Syphilis + HIV diagnosis or HIV diagnosis + RTRI.
- Currently, it supports multiple PT programs such as HIV diagnosis, HIV recency, COVID-19, VL, EID, and TB. The system has the capacity to add different PT modules in this system.

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CHALLENGE 4

Poor internet and limitation of computer system

Challenge 4 : Poor Connectivity

CHALLENGE

Some of the testing sites suffer from poor internet or do not have any internet connectivity. This makes it difficult to use an online system for shipment reporting.

HOW ePT CAN HELP

- ePT is an online system that requires some connectivity for the participant. It is designed for low bandwidth setting. It is also available as an Android app that participants can use for reporting PT data.
- Hub & Spoke model for PT program enables remote sites to report PT results to the Hub. The Hub can print a PT response form, send the form along with the sample, collect the response and enter the response into the ePT system.

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Electronic data repository and tracking performance history

Challenge 4 : Poor Connectivity

CHALLENGE

Large numbers create challenges in tracking participating historical performance. This in turn creates challenges in identifying sites that require support for performance improvement.

HOW ePT CAN HELP

- ePT provides a data repository for PT. This enables the participant as well as PT provider to view complete historical PT performance.

PT Provider Demo

Let us take a quick look at ePT as a Provider

PT Provider Functionality

- Secure area to Manage PT
- Configure various aspects of system
- Manage Surveys/Shipments
- Analyze Responses
- Generate and Export Reports
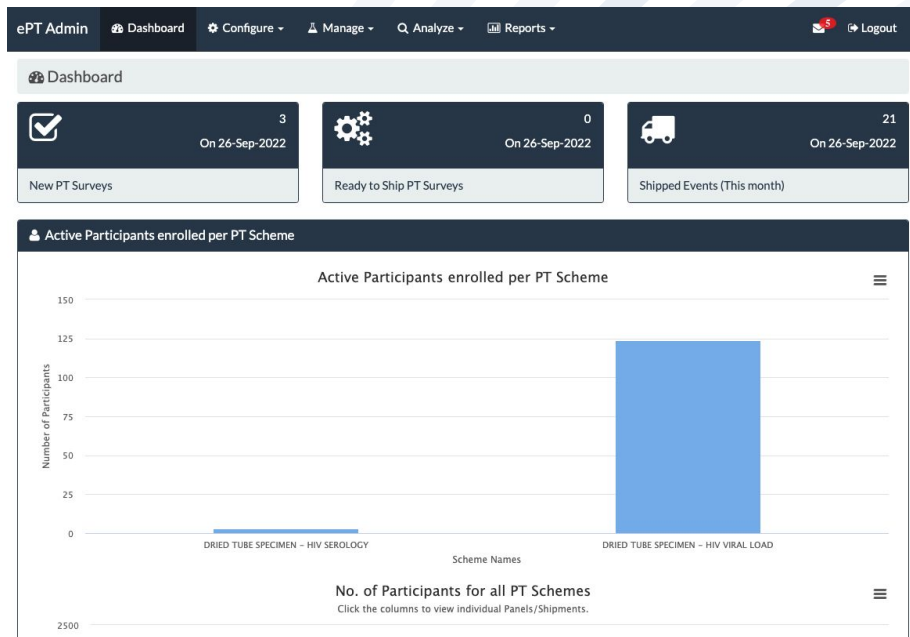
Configuring System

- Manage PT Participating Agencies/Individuals
- Manage login access
- Configure System and Reports
- Manage administrative access for e-PT system
- Configure Test Kits, Assays etc.

Manage Surveys/Shipments

- Manage PT Survey
- Manage Testing panel in PT Survey
- Manage participants enrollment for a given panel
- Add/Modify reference result for a given panel
- Ship the panel to participant

Evaluation and Report Generation

- Evaluate participants responses

- Reviewing response rate and participant performance

- Generate reports for PT participants

- View/Export reports for a given shipment

- Edit and modify participant responses if needed

Analysis/Reporting

- Participants Performance Reports
- Corrective Actions Report
- Detailed Shipment Report
- Test Kit Usage Report
- Export/Download Data for Analysis

PT Participant Demo

Let us take a quick look at ePT as a Participant

Main PT Participant Functionalities

- Respond to PT

- Download reports

- Manage Profile

PT Result Submission

- Enter PT Response for participant(s)
- View/Edit Previous responses
- Download form in PDF format to print

Thanks!

Any questions?