UPGRADING OF THE ANALYSIS MODULE OF FNRI SERVICE LABORATORY INTEGRATED ONLINE SYSTEM (FNRI-SL IOS)

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BACKGROUND
The Food and Nutrition Research Institute - Service Laboratory (FNRI-SL) caters to the analyses needs of research institutions, academe, food industries and private individuals. The continuous expansion of the laboratory services is coupled with the need for management of information and data that leads to the development of the FNRI-SL Integrated Online System (IOS). The developed FNRI-SL IOS automated the laboratory process in which all transactions are linked and traceable which provides a faster monitoring of each process and better data management. The system replaced the existing paper-based transaction from receipt of sample, payment of fees up to release of test report. However, results of analysis are manually encoded to the system to generate report of analysis.

OBJECTIVE
The study aimed to upgrade the Analysis Module of the FNRI-SL IOS, specifically to develop electronic worksheet with printable laboratory reports.

METHODS
The FNRI SL-IOS is a computerized system that centralizes the data related analysis requested by customers. The transition from paper-based laboratory process to the on-line system of laboratory services included test and refinements of the system to ensure the accuracy of data from sample receiving to encoding of results. The Analysis Module was upgraded by developing an electronic worksheet incorporating computation of results from encoded data. The system allows the analyst to: (1) input raw data to the system using the electronic worksheet, (2) project the result based on the inputs, and (3) raise the awareness of the analyst for the required tasks.

RESULTS
All data related to the request are saved in a centralized data storage which can be accessed through the website i.fnri.dost.gov.ph/sl-ios by the analyst, checker, and laboratory manager. This lowers data redundancy, possible loss of data due to computer failure and increases security of the results, and increases the output. The electronic worksheets are undergoing the testing phase to assess the accuracy of the generated results.

CONCLUSION AND RECOMMENDATION
The developed FNRI SL-IOS increases the response time and output through the use of electronic worksheets for the computation of test results and generation of printable laboratory reports which is accessible to the customers. The analysis module is recommended to include the other component of the laboratory process such as inventories of laboratory supplies together with waste materials.