MHA-FPX5064 Assessment 3: Health Information System Implementation

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Program Name or Degree Name (e.g., Bachelor of Science in Psychology), University

COURSE XXX: Title of Course

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Health Information System Implementation

The interaction between people, processes, and technology that supports operations and management in delivering critical information to enhance the quality of healthcare services is known as a health information system (HIS) (Tilahun, 2021). In the healthcare industry, it is important for patients to receive safe care and for physicians and employees to have more fulfilling jobs. A health IT system's successful adoption is crucial. By identifying the needs and requirements of Vila Health, the implementation of HIS will be successful. According to HealthIT.gov (n.d.), there are different stages when implementing HIS. These stages involve system configuration, system interfaces, and patient identification. To guarantee that the technology supports safe, effective clinical processes and completes efficient workflows, the system configuration might be complicated and calls for a team that includes practicing physicians (HealthIT.gov, n.d.).

When implementing HIS, it is important to think about the care processes it must support first and how the hardware and software should be configured to do so in a patient- and clinician-friendly way (HealthIT.gov, n.d.). Implementation of HIS requires training for new users as well as providing ongoing support and maintenance to ensure the system continues to function properly. Customizing the system to the organization's workflow and data requirements is also important. Additionally, running tests on the system will ensure that it is working as expected to meet the needs of the organization.

Plan for Collecting and Analyzing Data

Data collection and analysis is the most important part of implementing a new or upgrading health information system. The process mainly involves collecting, analyzing, and applying the data to patients' documentation. It is, therefore, essential to identify the data that

should be collected, the data sources, and the data analysis plan in advance. The data that needs to be collected and analyzed include the regulatory and compliance requirements, hardware and software infrastructure required, vendors available and vendor information, integration needed with the current systems, and the training and competencies required. The data will be collected by the project team aimed at informing the implementation process.

Likely sources for the data mentioned above include the current health informatics department, vendor documentation, interviews and surveys, a training needs analysis, and financial statements. The interviews and surveys with the relevant stakeholders will help identify the readiness of the organization to upgrade the HIS, the resources available, and the vital considerations. In addition, the data sources will point out things to take note of, for instance, mistakes that were done in previous HIS implementation projects, thus enabling the team to watch out for similar mistakes and strategize on mitigating them.

After data collection, the project implementation team will analyze it and develop an outline for implementing the project. The team will hold meetings whereby all the data collected from surveys, interviews, and needs analysis will be brought together for analysis. The data analysis will entail assessing the institutional needs against the HIS that best suits the needs. After that, the requirements for implementation will be analyzed against the available structures and resources to identify the requirements that have been met and set deadlines for meeting the ones that have not been met, thus preparing adequately for the implementation.

Criteria for Evaluating Organizational Needs

An organizational needs evaluation criteria helps identify the needs, urgency addressing the needs, resources required, and the feasibility of addressing the needs within the current organizational capability. The criteria for evaluating the organizational needs will follow the

following processes: need identification and validation, resource identification and allocation, gathering internal and external information on how to best address the needs, and finally, analyzing the data to provide feedback to the project team. Sadoughi et al. (2020) successfully used the criteria to assess the factors affecting the adoption of cloud systems in the healthcare sector. Thus, the criteria are suitable for evaluating the organizational needs of this project.

The need to upgrade the current HIS has already been identified. The need justification will entail assessing the current HIS for any drawbacks and determining why the HIS has to be upgraded. The readiness and capability of the institution to address the need will also be used to validate it. Need justification will be followed by resource identification and allocation based on the available resources in the organization. The project team will work closely with the finance department and the top leadership to allocate resources for upgrading the HIS. In addition, internal and external information will inform the actions taken to address the need. The organizational needs evaluation report will inform decision-making in the project's implementation.

Plan for Generating Reports

Communication between the project team and the stakeholders/other decision-makers is crucial in project implementation. Bove and Huston (2020) note that regular reporting to decision-makers clarifies their expectations on the project, ensures they are on the same page and informs decision-making. The reports on the project implementation progress will be generated twice per month. The project stakeholders, including the institutional leaders, nurse managers, nurses, and other healthcare staff, expect to get progress reports and any implementation changes that may be made during implementation. Therefore, implementation reports should capture these expectations. The information that will be communicated to decision-makers includes the

analysis results on the available HIS, the different vendors, regulatory and infrastructural requirements, and the progress in achieving these requirements. The information will be reported in every step of the implementation process. For instance, after settling on a vendor to provide the HIS, the report following the decision will include this information.

Personnel and Logistics Needed to Carry Out an Implementation Plan

The project team entails the personnel that will be needed to implement the HIS update project. The team entails the chief of information technology and data and representatives from the information systems support department, nurses, medical staff, finance, quality assurance, and health operations. Each of the departments will have one representative in the team, who will be responsible for presenting the project progress to other members in their departments. The representatives will also advocate the needs of their department in relation to the upgraded information system.

According to Laukka et al. (2020), project managers should identify the necessary considerations for a project and align them with the current need to be addressed by the project. The critical project requirements and considerations in this project include system interoperability, requirements for data migration, training needs for users and system maintenance/support, and the necessary testing and validation of the system. The project team needs to assess whether the upgraded system will be easily integrated into the current systems, whether data will be transferred without loss or tampering, and whether the staff has been trained adequately. The requirements for testing and validation are available.

Based on the above-mentioned project requirements, the needs assessment justified the feasibility of addressing the needs using the upgraded HIS. The needs assessment results showed that the proposed system update will be easily integrated into the current systems without data

loss. Additionally, the staff have been trained, and more training sessions are planned to be conducted to refresh the staff's skills before the system goes live. The infrastructural requirements to facilitate the system's testing have also been met. Hence, the project implementation is feasible.

Project Timeline

The project implementation will take six months. The six-month timeline is adequate to train the staff on the new HIS, test the system, implement, and evaluate it. The timeline also gives the project team adequate time to liaise with stakeholders and decision-makers to strengthen the implementation plan. However, this timeline assumes that all stakeholders will participate as expected, the institutional executive leaders will provide the necessary support and go ahead with the project implementation, and there will be no delays. More so, She et al. (2020) note that contingencies such as data loss during transfer to the upgraded HIS should be accounted for.

Conclusion

The proposed project to upgrade the HIS for villa health will be implemented following the implementation plan provided above. The project team will collect and analyze the relevant data to justify the project's feasibility. Constant progress reports will be provided to stakeholders and decision-makers twice a month. The project requirements mentioned will be considered in implementation through the personnel in the project team.

References

Bove, L., & Houston, S. M. (2020). *Project Management Skills for Healthcare: Methods and Techniques for Diverse Skillsets*. (1st Ed.). Productivity Press. https://doi.org/10.4324/9780429355882

HealthIt.gov. (n.d.). Health IT and Health Information Basics. Retrieved from https://www.healthit.gov/topic/health-it-and-health-information-exchange-basics/what-hie

Laukka, E., Huhtakangas, M., Heponiemi, T., & Kanste, O. (2020). Identifying the Roles of Healthcare Leaders in HIT Implementation: A Scoping Review of the Quantitative and Qualitative Evidence. *International Journal of Environmental Research and Public Health*, *17*(8), 2865. https://doi.org/10.3390/ijerph17082865

Sadoughi, F., Ali, O., & Erfannia, L. (2020). Evaluating the factors that influence cloud technology adoption-comparative case analysis of health and non-health sectors: A systematic review. *Health Informatics Journal*, *26*(2), 1363–1391. https://doi.org/10.1177/1460458219879340

Seh, A. H., Zarour, M., Alenezi, M., Sarkar, A. K., Agrawal, A., Kumar, R., & Khan, R. A. (2020). Healthcare Data Breaches: Insights and Implications. *Healthcare (Basel, Switzerland)*, *8*(2), 133. https://doi.org/10.3390/healthcare8020133

Tilahun, B., Gashu, K. D., Mekonnen, Z. A., Endehabtu, B. F., Asressie, M., Minyihun, A., Mamuye, A., Atnafu, A., Ayele, W., Gutema, K., Abera, A., Abera, M., Gebretsadik, T., Abate, B., Mohammed, M., Animut, N., Belay, H., Alemu, H., Denboba, W., Gebeyehu, A. and Tadesse, L. (2021). Strengthening the national health information system through a capacity-building and mentorship partnership (CBMP) program: a health system and

university partnership initiative in Ethiopia. *Health Research Policy and Systems*, *19*(1), 141. https://doi.org/10.1186/s12961-021-00787-x