Background

Technology projects within healthcare are more complex than typical healthcare decision-making processes due to the multi-layer factors that influence the technology life cycle (Saba and McCormick, 2015).

Using a framework of a technology assessment generates questions that facilitate a goal of providing quality patient care and nurse satisfaction (Manning and McConnell, 1997). The conceptual building blocks of data and information transformation into knowledge in 2002 by Graves & Corcoran, and its expansion to gain wisdom by Nelson in 2013 establishes the foundation for nursing informatics to influence decision-making (ANA, 2015).

The Technology Tool for Nurses (TTFN) is a modified practice tool which is scalable to facilitate technology decisions or projects such as a clinical communication solution.

Design

The TTFN guides, for example, the selection process of a clinical communication solution, by following these steps:

- **Proposal/Need**: Defines the requirements for user, goal, or solution
- **Conflict/Issue**: Examines any issues or arisen problems with need
- **Information Inquiry**: Current state assessment includes gathering, analyzing, summarizing, and disseminating results
- **Knowledge Prioritization**: Defines/collates key factors from assessment during analysis
  - **Key factors**: Critical criteria that strongly influence the decision-maker(s) stakeholder(s) opinion of the technology
- **Wisdom Valuation**: Assigns key factors to foundational pillars while measuring or scaling them.
- **Stakeholders Presentation**: Disseminates results, subjective user feedback, and weighted value of key factors within foundational pillars
- **Decision**: Stakeholders are able to comprehend clinical value versus cost

6 Foundational Assessment Pillars

- **Productivity** = End-user experience; Efficiency; Improve/streamline workflows
- **Quality/Safety** = Does no harm; Impact clinical outcomes neutrally or positively
- **Patient Experience** = Enhanced perception and reality
- **Cost-benefit** = Financially responsible
- **Feasibility** = Ability to actually implement with reasonable resources

Summary/Benefits

The TTFN Framework:

- Designed to guide the IN/INS
- Analyzes potential technology
- Assists with any changes into the Electronic Health Record (EHR)
  - Optimization of workflows
  - Changes in documentation
  - Additional documentation considerations or other considerations within the system
- Tailors and isolates key elements to be identified within the planning phase of a system design life cycle (SDLC) for specific technology implementation requests (Saba and McCormick, 2015)
- Assigns “weighted value” to the key factors

References

