HealthManagement
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Building Practical AI Governance in Healthcare

Healthcare organisations face growing demands to implement effective governance structures. These systems must address safety, ethics, regulation and transparency, ensuring that AI technologies align with patient needs and institutional priorities. In response, a Canadian hospital system applied the People, Process, Technology and Operations (PPTO) framework to create an actionable and scalable model for AI governance. Through stakeholder engagement and structured policy development, the organisation moved from ad hoc practices to an institutionalised approach that can serve as a guide for others.

Assessing Readiness and Identifying Gaps

Initial stakeholder interviews revealed that while AI adoption was still in its early stages, the organisation had already integrated several AI tools into its systems. Despite this progress, there was no unified governance structure in place. Existing capabilities across the People, Process and Technology domains were identified, but the Operations domain remained undeveloped. Stakeholders across departments—including clinical, operational and technical roles—highlighted the absence of standardised protocols and decision-making processes. Effective practices such as feasibility assessments and clinician involvement were implemented inconsistently, and monitoring, documentation and feedback loops were often lacking. Ethical oversight was notably absent for AI used in clinical practice, raising concerns about equity and potential bias. These findings established a clear need for a centralised governance approach that included clearly defined roles, transparent monitoring systems and coordinated oversight.

Designing a Tailored Governance Framework

To address these gaps, co-design workshops were held to adapt the PPTO framework to the organisation's needs. In the People domain, participants supported embedding the new AI governance committee within the existing digital health structure, recommending annual membership reviews and clearly documented expectations. Emphasis was placed on cross-functional expertise and foundational technical knowledge among all committee members. In the Process domain, the need for a centralised, standardised governance process was prioritised. While maintaining flexibility for innovation, participants endorsed risk-based oversight and the creation of a central inventory for AI tools. They also clarified the committee's role as an oversight body rather than a decision-making entity for adoption, reserving operational decisions for departmental leads. The Technology domain discussions focused on existing strengths in data infrastructure and emphasised collaboration between technical, clinical and business units. However, concerns about long-term cost management and technical ownership remained. Operational governance required defining success metrics, budgeting for sustainability and disseminating comprehensive documentation and training throughout the organisation. Integrating patient perspectives was also identified as essential for maintaining transparency and trust.

Must Read:** **AI Data Governance in Healthcare: Challenges and New Strategies

From Framework to Policy

The workshops led to the successful development and formal adoption of AI governance policies structured around the PPTO domains. These policies struck a balance between foundational oversight and practical implementation, simplifying initial requirements to allow for gradual scaling. A new AI governance committee was established as a sub-committee within the digital health committee, incorporating clinical, technical, ethical, research and patient representation. This inclusive structure aimed to ensure comprehensive oversight and organisational buy-in. As part of its mandate, the committee began refining policies through real-world testing with different AI use cases. This iterative approach ensured that the governance structures remained flexible, responsive and aligned with evolving technological and clinical demands.

Implementing AI governance in healthcare requires more than high-level principles; it demands practical structures grounded in the realities of clinical environments. The Canadian hospital's application of the PPTO framework shows how a conceptual model can be translated into operational policy through structured stakeholder engagement and iterative design. By aligning governance with organisational capabilities,

defining clear responsibilities and addressing technical, ethical and patient-centred concerns, the institution built a scalable system with potential for replication in other settings. In the future, such governance models will be critical to ensuring responsible and effective integration.

Source: **npj digital medicine**

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