Pacific Health Information Network

Strengthening Health Information Systems and Digital Health

Fiji's experience and lessons learnt in undertaking development of its National Digital Health Strategic plan

Pacific Health Information Network, 28-30th March, 2023 - Tanoa International Hotel, Nadi, Fiji

Overview

- Background
- Reviews
- Review findings
- Pandemic & Epidemic
- Developing the DHS
- Current status & next steps
- Guidance towards effective implementation

Background

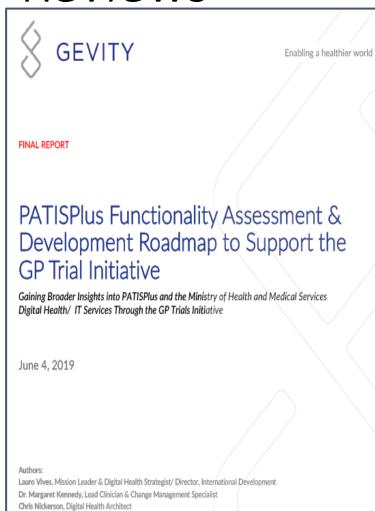
- ☐ 2017 : Fijian Government released its 20 Year National Development Plan 2017-2036
- Expand coverage of electronic of patient management systems in facilities
- Integrated surveillance systems

☐ 2019 Global Strategy on Digital Health 2020-2025

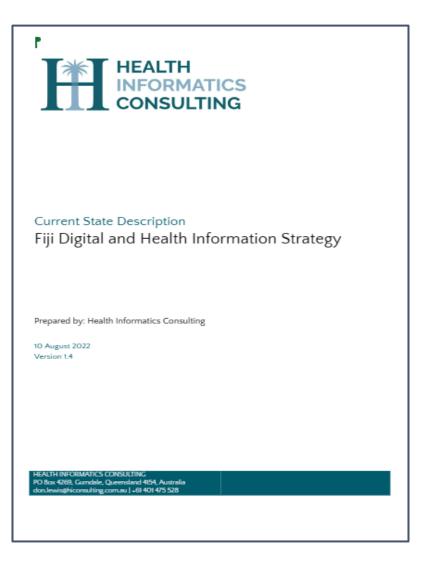
- ☐ 2020 : MHMS released its National Strategy Plan 2020-2025
- Harness Digital Technologies to facilitate better health care for our patients



Reviews







2019 2020 2021

Review Findings

 Staff changes, funding and other constraints resulted in minimal structured implementation of the CIS-HIS strategy (only 16% achieved)

 '...foundational activities such as improving the human and organizational capacity, providing the proper infrastructure, and ensuring quality coding and standards compliance..'.

 Key recommendation - Digital health strategy (LT) and outlined a 18 month implementation costed plan @ \$2.5 million (ST)

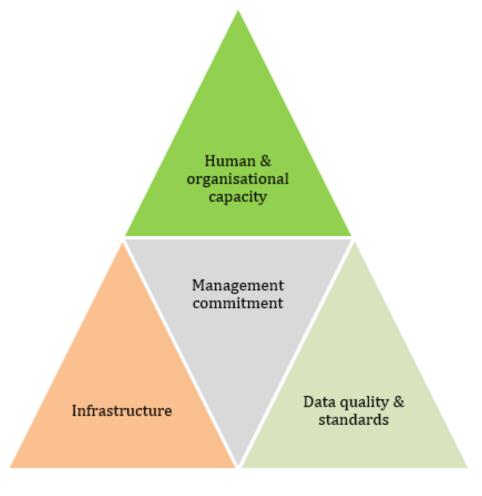
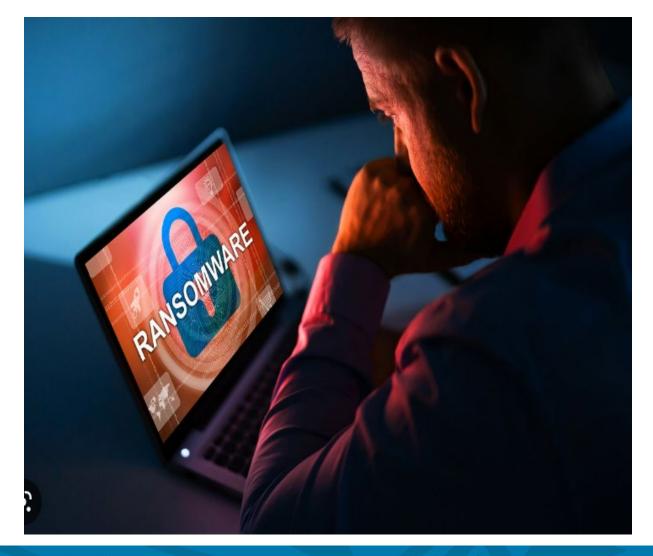


Figure 1: Building blocks of digital health

COVID 19 Pandemic 2020, 2021

Ransomware epidemic, 2021



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Developing a Digital Health Strategy

- Situational analysis (reviews)
- Partnership with technical agency and development implementing agency
- Recruitment of consultancy
- Set out a plan of action
- Establishment of a Digital Health Steering Committee
- Interviews of key stakeholders within the Ministry
- Consultation with donors, partners and technical agencies
- National consultation of Draft Digital health strategy



Current status & next steps

- Submission of final draft
- Endorsement of DHS technical working group
- Review and Endorsement at Executive level
- > Final consultation with key stakeholders
- > Final amendments
- Printing of DHS
- Submission for Cabinet approval
- On-going activities: Implementation plan, MEL and other considerations to 'make the changes stick'.

Strategic Steering model

Create and enhance essential capabilities

Foundations

- IT infrastructure and service management (and needed systems and tools)
- End user devices and fleet management system, including refresh program
- Procurement and contract management
- Policies and procedures
- Organisational structure
- Resource capacity and capability, and processes for development
- Project/program delivery capability for full life -cycle

Architecture

- Enterprise Architecture and related domains and governance
- Framework of standards, and the means to develop and enforce
- Interoperability capability
- Conformance capability
- Sandbox environment

Digital Solutions

- Systems for clinical and business needs, and service and organisational management
- Foundational components, e.g. for identity, terminologies, messaging, external data sharing
- Data analytics and dashboards
- Develop Fiji Digital Health ecosystem

Change and Adoption

 Methods, tools, capabilities, resources for maximising use of digital capabilities to achieve planned benefits

Governance

- Structure, processes, rules, and authority to effectively oversee, direct and make decisions related to digital investments and programs, including funding, and the realisation of planned benefits.
- Partnerships with other government agencies and external stakeholders

Improved ability to maximise use of digital health capabilities to obtain benefits

- User work process change and adoption, education and training
- Update policies and procedures; possibly regulations, legislation
- Reduce dependency on paper, manual processes personal email accounts and external data sharing platforms
- Implement standardised clinical work practices and pathways
- Safety and Quality enhance incident and risk management, accreditation
- Increase health services delivery integration, data sharing, and interoperability across the system
- Supply chain, and financial and resource management optimisation
- Enhance data analytics, reporting with actionable insights and improved communication
- Enhance ability to conduct research, clinical trials and innovation
- Utilise Fiji Digital Health ecosystem to enhance access to services and data, and increase patient engagement

Improved organisational performance

- MHMS management effectiveness and business performance increased; health system is more efficient
- Programs are better coordinated and communications on status and progress is enhanced; Portfolio of program investments is optimised to create enterprise value
- Data quality and regulatory compliance increased
 User satisfaction and productivity increased as IT
- User satisfaction and productivity increased as IT infrastructure is reliable, secure and fast
- New/enhanced information systems improve users' ability to do their jobs; necessary technology and data is available as and when required
- IT better understands MHMS's business and is better able to identify and facilitate digital -enabled improvement opportunities
- Users see IT in MHMS as helping to enhance their work, and is perceived as adding value and not just as a cost
- Standard MHMS processes are designed and implemented, delivering increased efficiency
- MHMS staff collaboration and productivity increased
- Improved patient satisfaction and outcomes, including for those in regional areas

MHMS Strategic Objectives

- Continued decentralisation of services, and expanded availability in communities and regional areas
- Better linkage between clinical and preventive services
- Increased early detection and action to reduce serious cases seen in hospitals
- Better care services integration with primary care, community and other providers
- Improved service experience and outcomes for patients with increased satisfaction
- Increased standardisation of care, with improved quality, and reduced risks for patient safety
- Increased efficacy of processes (clinical, non-clinical and management)
- Strengthened collaboration across the health system, including with the private sector
- Increased staff competence, capability, productivity and satisfaction
- Improved efficiency of supply chain management, asset utilisation, financial processes, and strengthen planning and governance
- Increased and greater effectiveness of partnering across government and with external stakeholders

Process Capability Maturity Model



Figure 3: Organisational and Process Capability Maturity Model

Originally developed by the Software Engineering Institute (SEI) at Carnegie Mellon University, USA, and adapted for broader business use over time; for example, see: https://www.cio.com/article/274530/process-improvement-capability-maturity-model-integration-cmmi-definition-and-solutions.html.

Workstreams

- Foundations
- Business solutions that focus for IT
- IT service management capability
- Governance
- The Portfolio, Program and Project Management framework
- Architecture
- Standards & intra operability
- Enterprise architecture

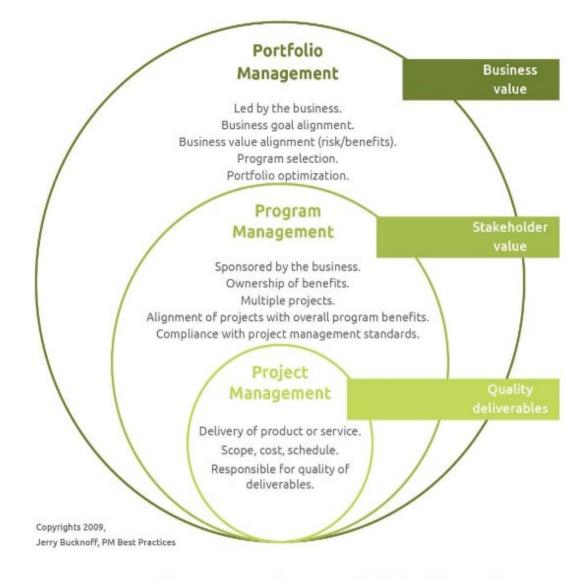


Figure 7: Portfolio, Program and Project - what's the difference?

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