FSM Digital Health Strategy:

Enhanced Digital Health Objectives 2026 -2030

FSM DEPARTMENT OF HEALTH & SOCIAL AFFAIRS

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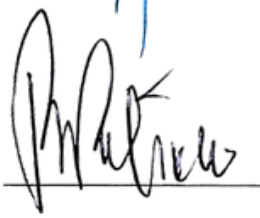
Dr. Bosco Buliche Director Chuuk Department of Health Services		2/4/26
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Foreword

The Federated States of Micronesia (FSM) stands at a pivotal moment in its health sector transformation. As we embrace digital health as a key priority area under the health strategic development plan, we recognize both the challenges and opportunities unique to our nation. A five-year vision is being put forth to accommodate the everchanging digital landscape and guide this needed digital health transformation.

Digital transformation is a whole of country effort and as thus, the vision takes a holistic approach focusing on equity and digital inclusion, interoperability and standards-based architecture, data governance, privacy and security, community-centered design and engagement, sustainability and climate resilience, innovation and adaptability, multi-sectoral coordination and stakeholder ownership, and alignment with national development goals and SDGs.

This strategy outlines our mission, vision and commitment to leveraging digital technologies for improved health outcomes, equity, and resilience across all our islands. Let us move forward with the shared commitment that our digital health transformation is not just about technology—it is about people, equity, and the future well-being of our nation.

Marcus Samo, MPH

Secretary, FSM Department of Health and Social Affairs

Acknowledgments

We extend our sincere gratitude to all stakeholders, health professionals, government officials, and community members who contributed to the development of this strategy. Special thanks to our partners including the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), Pacific Community (SPC), World Bank, UNDP, UNICEF, Asian Development Bank (ADB), Association of State and Territorial Health Officials (ASTHO), and other regional and international collaborators for their technical, financial, and strategic support.

We are grateful for the collaborative spirit and shared commitment demonstrated by all partners, which continues to drive FSM's digital health journey forward.

Executive Summary

This strategy document articulates the Federated States of Micronesia's (FSM) vision for transforming health service delivery through digital innovation, tailored to the unique geographic, infrastructural, and human resource realities of its widely dispersed island states. Recognizing the urgent need to modernize health systems, the strategy sets forth a comprehensive framework to improve health outcomes, equity, and system efficiency through digital health.

FSM faces significant challenges in delivering good-quality healthcare, including limited connectivity, fragmented health information systems, and a shortage of digital health professionals. These constraints are compounded by the geographic isolation of many communities, making traditional health service delivery models costly and inefficient.

To address these challenges, the strategy outlines seven strategic interventions aimed at:

- Strengthening digital infrastructure and connectivity across all states.
- Establishing interoperable and secure health information systems.
- Enhancing data governance and privacy protections.
- Building digital health literacy and capacity within the health workforce.
- Promoting telehealth and remote care solutions.
- Supporting evidence-based decision-making through improved data analytics.
- Fostering multi-sectoral partnerships and stakeholder engagement.
- Ensuring sustainability through policy alignment and financing mechanisms.

The strategy is underpinned by a five-year implementation roadmap, which includes phased activities, milestones, and performance indicators to guide progress. It also incorporates a robust risk mitigation framework to anticipate and manage potential barriers such as technological obsolescence, cybersecurity threats, and workforce attrition.

Digital health is not only a technological solution—it is a catalyst for health system reform. By integrating digital tools into routine service delivery, FSM can improve the timeliness and accuracy of health data, enhance coordination between providers, and empower individuals to take a more active role in managing their health. This transformation will also support national efforts to strengthen disease surveillance, respond to public health emergencies, and monitor progress toward universal health coverage.

The successful implementation of this strategy will require strong leadership, sustained investment, and inclusive stakeholder engagement. It calls for collaboration across government sectors, development partners, civil society, and communities to ensure that digital health solutions are contextually appropriate, culturally sensitive, and responsive to the needs of all citizens. By embracing digital health, FSM aims to bridge health service gaps, empower communities, and build a resilient health system that can adapt to future challenges, including public health emergencies and climate-related disruptions.

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1. Background

The Federated States of Micronesia (FSM) is a geographically dispersed nation comprising over 600 islands across the four states of Yap, Chuuk, Pohnpei, and Kosrae. This dispersion presents unique challenges for health service delivery, including limited access to care in remote areas, inadequate availability of health information, and high transportation costs. These challenges are compounded by fragmented health information systems (HIS), unreliable power supply, and limited internet connectivity, particularly in outer islands; resulting in poor data management and underutilization of digital tools.

FSM's health sector also faces chronic shortages of healthcare workers, IT personnel, and digital literacy among both providers and patients. These gaps hinder the implementation of digital health services and the integration of data into routine workflows. Despite these constraints, FSM has made notable progress, including the deployment of electronic health records (EHRs) in state hospitals and select outer island facilities, the establishment of telepathology services, and ongoing infrastructure upgrades such as Starlink connectivity and power supply improvements.

FSM recognizes the transformative potential of digital health in strengthening its health systems and advancing toward universal health coverage. In alignment with the World Health Organization's Global Strategy on Digital Health 2020–2025, FSM is committed to leveraging appropriate, accessible, and sustainable digital technologies to improve health outcomes across its widely dispersed islands. This envisions establishing people-centered, interoperable, and secure digital health ecosystems integrated into national health strategies.

This document identifies the key interventions for advancing digital health in FSM that build on recent achievements and address persistent gaps. The strategy prioritizes infrastructure upgrades, interoperable health information systems, data governance, workforce development, community engagement, and innovation, aimed at supporting resilient and equitable health services throughout the country.

1.1 Vision

To establish an integrated, resilient, and inclusive digital health ecosystem that enhances the quality, accessibility, and efficiency of health services across all states and communities.

1.2 Mission

To harness appropriate and context-sensitive digital technologies to strengthen health systems, improve service delivery, and advance universal health coverage while promoting data-driven decision-making, community engagement, and climate resilience.

1.3 Guiding Principles

- Equity and digital inclusion
- Interoperability and standards-based architecture
- Data governance, privacy, and security
- Community-centered design and engagement
- Sustainability and climate resilience
- Innovation and adaptability
- Multi-sectoral coordination and stakeholder ownership
- Alignment with national development goals and SDGs

2. Strategic Interventions

2.1 Strengthen Digital Infrastructure

FSM faces unique and formidable challenges in building and sustaining digital infrastructure for health. The nation's geography, spanning over 600 islands scattered across nearly 3 million square kilometers of ocean, creates significant logistical, technical, and financial barriers to deploying and maintaining reliable digital systems. Many remote and outer islands lack consistent access to electricity and internet connectivity, making it difficult to implement even the most needed digital health tools, such as electronic medical records, telemedicine, or health information systems.

Existing infrastructure is often fragmented and outdated. Health facilities on main Islands may have good connectivity, but outer islands frequently rely on intermittent satellite links or have no connectivity at all. Power supply is unreliable, with frequent outages and limited backup options, further constraining the use of digital tools. The lack of standardized infrastructure across FSM's four states leads to unequal access to digital health services, deepening health disparities between main and outer Islands' populations.

Recent initiatives, such as the introduction of Starlink satellite internet and VSAT systems, offer promising solutions to bridge connectivity gaps. However, these technologies require sustained investment, technical support, and local capacity building to ensure long-term functionality. Infrastructure upgrades are ongoing, including network expansion, procurement of Starlink kits, and installation of power systems, but these efforts remain limited in scale and coverage.

Natural disasters, such as typhoons, floods, and rising sea levels—pose additional risks to digital infrastructure, threatening to disrupt services and damage critical equipment. Building resilience into infrastructure planning is essential to ensure continuity of service during emergencies.

A comprehensive, coordinated approach is needed to address these challenges. This includes not only upgrading physical infrastructure but also developing national standards, ensuring interoperability, and investing in secure, scalable systems. A robust digital infrastructure is foundational for all other digital health initiatives, enabling data-driven decision-making, efficient service delivery, and equitable access to care across FSM. Intervening actions will include: -

- Develop a national Digital Health Infrastructure Development Plan to guide equitable access and sustainability.
- Upgrade IT and power infrastructure across all health facilities, including battery backups and standby generators.
- Expand internet connectivity using fiber, satellite, VSAT, and Starlink, especially in outer islands.
- Replace aging hardware and software and ensure protected and upgraded network cabling.
- Invest in secure servers, mobile devices, and computers for health facilities.
- Implement private cloud and disaster recovery solutions for resilient hosting and central backup.
- Standardize onboarding policies, IT procedures, and asset life-cycle management.

2.2 Implement Integrated and Interoperable Health Information Systems

FSM's health information system (HIS) landscape is currently fragmented, with disparate systems operating in isolation across states, facilities, and programs. This fragmentation severely limits the ability to deliver coordinated care, monitor disease trends, and respond effectively to public health threats. Patient data is often siloed within individual programs or facilities, making it difficult to track longitudinal health outcomes or ensure continuity of care, especially for patients with chronic conditions who require consistent follow-up across multiple levels of the health system.

While some progress has been made, such as the integration of electronic health records (EHRs) with laboratory and pharmacy systems, these efforts remain partial and uneven. Crucially, interoperability with public health surveillance systems and civil registration and vital statistics (CRVS) is still lacking. This results in incomplete datasets that hinder effective national health planning, disease surveillance, and emergency response capabilities.

The absence of standardized data formats, reporting tools, and feedback mechanisms further exacerbates the problem. Routine data collection is often driven by donor or program-specific requirements, leading to inconsistencies in data quality and coverage. Primary care data from Community Health Centers (CHCs) and dispensaries is frequently non-standardized and excluded from national reporting systems, creating blind spots in public health intelligence. Vital statistics reporting, particularly from remote outer islands, remains weak due to logistical challenges, limited digital infrastructure, and insufficient training of local health personnel.

FSM has taken steps to improve data governance, including the revision of Key Performance Indicators (KPIs) with clear definitions and data sources. However, challenges persist in ensuring consistent and accurate reporting across all four states. The FSM Health Information Technology and Surveillance Framework underscores the importance of longitudinal data for managing chronic diseases and improving health system performance, but implementation has been inconsistent.

To address these gaps, FSM is prioritizing the development of a unified, interoperable HIS that supports real-time data sharing, enhances care coordination, and enables evidence-based decision-making. This transformation will require not only technological upgrades but also institutional reforms, capacity building, and stakeholder engagement.

Key enablers of this strategic objective include:

- Transitioning from fragmented systems to a centralized EHR accessible across all states and levels of care, ensuring a single source of truth for patient records.
- Upgrading the existing EHR platform to support comprehensive patient management functions at hospitals, CHCs, and dispensaries.
- Developing a national health data warehouse that integrates health data with CRVS systems to support population-level analytics and planning.
- Ensuring interoperability between EHRs, public health program databases, and surveillance systems, using international standards such as HL7 FHIR and ICD-10.
- Standardizing data collection tools and protocols at all levels to ensure inclusivity and completeness of health data.
- Establishing governance structures and digital health standards to guide secure data exchange, privacy protection, and system sustainability.

This strategic objective is foundational to achieving a resilient, responsive, and equitable health system in FSM. By investing in integrated and interoperable HIS, FSM will be better positioned to meet its health goals, respond to emerging threats, and deliver high-quality care to all citizens, regardless of location.

2.3 Enhance Data Governance and Security

As the FSM accelerates the adoption of digital health technologies, the volume and complexity of health data generated across states and facilities are rapidly increasing. This digital transformation brings significant opportunities to improve health outcomes, streamline service delivery, and enable data-driven decision-making. However, it also introduces new challenges and risks, particularly in the absence of a unified national data governance framework.

Currently, FSM faces fragmented data management practices, with each program often developing its own protocols for data collection, storage, sharing, and use. This lack of harmonization leads to inconsistencies in data quality, security, and privacy protections. In some cases, sensitive patient information may be inadequately protected, increasing the risk of unauthorized access, data breaches, or misuse. Such incidents can erode public trust in digital health systems and deter both patients and providers from fully engaging with new technologies.

Moreover, the absence of clear legal and ethical guidelines complicates the responsible use of health data for research, policy development, and public health surveillance. Without robust governance structures, FSM may struggle to comply with international standards and best practices, potentially limiting opportunities for regional and global collaboration.

The evolving threat landscape, including cyberattacks, ransomware, and data leaks, further underscores the urgency of establishing comprehensive safeguards. Health data is among the most sensitive categories of personal information, and its protection is essential not only for individual privacy but also for maintaining the integrity and credibility of the health system as a whole.

To address these challenges, FSM's Digital Health Strategy prioritizes the development and implementation of national data governance frameworks. These frameworks will set out clear standards for data privacy, security, and ethical use, ensuring that all digital health initiatives operate within a consistent and accountable environment. To achieve this, FSM purpose to:

- Establish national data standards, privacy protocols, and cybersecurity frameworks, including role-based access, audit trails, and incident response.
- Implement role-based access controls, audit trails, and secure data transmission.
- Promote ethical use of health data for decision-making, research, and public trust.
- Develop governance structures to support digital standards and system integrity.
- Establish compliance and data governance frameworks for all digital health systems.
- Develop onboarding and compliance policies for all digital health staff.
- Conduct regular cybersecurity training and incident response drills in partnership with Department of Justice (DOJ) and other relevant agencies.

This strategic objective is key to the success of FSM's digital health transformation, ensuring that innovation is matched by accountability, and that the benefits of digital health are realized in a safe, ethical, and sustainable manner.

2.4 Build Human Resource Capacity for Digital Health

The successful implementation and sustainability of digital health initiatives are fundamentally dependent on the strength and readiness of its health workforce. As FSM embarks on a digital transformation journey, it faces a critical shortage of skilled personnel in both information technology (IT) and health informatics. This gap is compounded by generally low digital literacy among healthcare workers, many of whom have limited exposure to digital health tools such as electronic health records (EHRs), telemedicine platforms, and data analytics systems.

The current workforce landscape reveals several challenges, including:

- Limited Local Expertise: FSM has a small pool of IT professionals, and even fewer with specialized training in health informatics. This scarcity hampers the deployment, maintenance, and troubleshooting of digital health systems.
- Digital Literacy Gaps: Many clinicians, nurses, and public health staff have not received formal training in digital health competencies. As a result, digital tools are often underutilized, misapplied, or met with resistance, reducing their potential impact on patient care and health system efficiency.

- Retention and Recruitment Issues: Attracting and retaining qualified IT and informatics staff is difficult due to limited career pathways, competitive salaries abroad, and a lack of structured professional development opportunities within FSM.
- Fragmented Training Approaches: Existing training programs are often ad hoc, short-term, or externally driven, lacking alignment with national priorities or sustainability mechanisms.

Without targeted and sustained capacity-building efforts, FSM risks falling short of its digital health ambitions. Digital systems may be implemented without adequate support, leading to inefficiencies, data quality issues, and user frustration. Furthermore, the absence of a digitally competent workforce undermines the ability to leverage health data for decision-making, research, and quality improvement.

To address these challenges, the Digital Health Strategy emphasizes a comprehensive approach to workforce development, including:

- Building a Local Talent Pipeline: Collaborating with community colleges and universities to develop curricula and certification programs in health informatics and digital health, ensuring a steady supply of qualified professionals.
- Embedding Digital Health in Professional Training: Integrating digital health competencies into pre-service and in-service education for all health cadres, so that digital literacy becomes a core expectation for healthcare workers at every level.
- Continuous Professional Development: Offering ongoing eLearning, mentorship, and peer learning opportunities to keep staff updated on evolving technologies and best practices.
- Targeted Skills Development: Conducting regular skills gap assessments to tailor training programs to priority areas such as interoperability, data analytics, cybersecurity, and project management.
- Sustainable Training Models: Implementing 'train-the-trainer' approaches to build internal capacity and reduce reliance on external consultants.
- Institutionalizing Workforce Investments: Requiring minimum allocations of resources for workforce development, including dedicated IT and informatics positions at both national and state levels.

By prioritizing workforce capacity-building, FSM aims to empower its health professionals to confidently adopt, utilize, and sustain digital health innovations. This will not only maximize the return on investment in digital health infrastructure but also foster a culture of continuous learning, adaptability, and innovation across the health sector.

2.5 Promote Community Engagement and Digital Inclusion

The promise of digital health in FSM can only be realized if solutions are accessible, trusted, and relevant to all communities, including those in the most remote and underserved areas. FSM's unique context, marked by its geographic dispersion, cultural diversity, and linguistic variety, presents both opportunities and challenges for digital health adoption.

Many communities in FSM are located on outer islands, where access to technology and reliable internet connectivity is limited. Residents may have little prior exposure to digital tools, and some may be wary of new technologies due to concerns about privacy, cultural appropriateness, or the perceived complexity of digital systems. Language barriers and varying levels of literacy further complicate efforts to communicate the benefits and safe use of digital health solutions.

Cultural values and traditional leadership structures play a central role in community life. Involving respected local leaders, faith-based organizations, and community groups is essential for building trust and ensuring that digital health initiatives are seen as supportive rather than disruptive. Without meaningful engagement, there is a risk

that digital health tools will be misunderstood, underutilized, or even rejected by the very populations they are intended to serve.

Digital inclusion is not just about access to technology, but also about ensuring that all individuals, regardless of age, gender, disability, or socioeconomic status, can benefit from digital health innovations. This requires proactive efforts to address digital literacy gaps, tailor content and interfaces to local languages and cultural norms, and design solutions that are accessible to people with disabilities.

To address these challenges, FSM's Digital Health Strategy prioritizes community engagement and digital inclusion as foundational pillars. This approach recognizes that communities are not passive recipients of technology, but active partners in shaping, implementing, and sustaining digital health solutions. By engaging communities from the earliest stages, through needs assessments, co-design workshops, and participatory feedback mechanisms, FSM can ensure that digital health tools are relevant, user-friendly, and aligned with local values.

Key elements of this approach include:

- Culturally Appropriate Communication: Leveraging trusted channels such as churches, radio, schools, and community gatherings to raise awareness, dispel myths, and build confidence in digital health tools.
- Digital Literacy for All: Providing practical, hands-on training for the general population, with a focus on women, youth, elders, and people with disabilities, to ensure no one is left behind.
- Inclusive Design and Accessibility: Ensuring that digital health platforms and content are available in local languages, use simple and intuitive interfaces, and are accessible to people with varying abilities.
- Community-Led Implementation: Involving local champions and leaders in the rollout of digital health initiatives, so that solutions are promoted by trusted voices and adapted to local realities.
- Feedback and Continuous Improvement: Establishing mechanisms for ongoing community input, so that digital health tools can evolve in response to user needs and experiences.

By embedding community engagement and digital inclusion into every stage of the digital health journey, FSM aims to foster a sense of ownership, trust, and shared responsibility. This will not only enhance the uptake and impact of digital health solutions, but also contribute to broader goals of health equity, social cohesion, and sustainable development.

2.6 Foster Leadership and Multi-sectoral Coordination

Digital health is not solely a health sector endeavor—it is a national transformation initiative that intersects with multiple sectors including ICT, education, CRVS, finance, justice, and national security. In FSM, the success of digital health depends on the ability of these sectors to work together under a shared vision, with clear leadership and coordinated action.

FSM's geographic dispersion across four states and numerous islands presents unique logistical and operational challenges. Technical capacity is uneven, financial resources are limited, and institutional silos persist. These factors often result in fragmented digital initiatives, duplication of efforts, and missed opportunities for synergy. For example, separate systems may be developed for health records, birth registration, and school health programs, each with its own data standards and infrastructure—making integration and interoperability difficult.

Despite these challenges, FSM is at a pivotal moment. There is growing political will to advance digital health, as demonstrated by the formation of national governance structures, increased participation in regional forums, and engagement with development partners such as WHO, SPC, PHIN, The Association of State and Territorial Health Officials ((ASTHO) and the World Bank. These partnerships have brought valuable technical and financial support,

but without strong national leadership and coordination, external efforts risk being misaligned with local priorities or unsustainable in the long term.

Currently, coordination between key sectors, particularly health, ICT, and justice is limited. This hinders the development of interoperable systems, secure data sharing protocols, and citizen-centered services. For example, the lack of integration between health and civil registration systems affects the accuracy of population data, which in turn impacts planning, resource allocation, and health surveillance.

To address these gaps, FSM will foster a culture of collaborative leadership and multi-sectoral coordination. This involves:

- Formalizing governance mechanisms that bring together stakeholders from all relevant sectors with clearly defined roles, responsibilities, and mandates.
- Aligning digital health strategies with broader national development goals and the Sustainable Development Goals (SDGs), ensuring that digital investments contribute to health equity, education, economic growth, and good governance.
- Leveraging existing platforms such as the annual Digital Conference to facilitate joint planning, knowledge exchange, and consensus-building among national and state-level actors.
- Developing a country-owned digital health strategy that articulates FSM's priorities, guides partner contributions, and ensures accountability.
- Creating a digital health investment roadmap to coordinate funding, optimize resource use, and plan for long-term sustainability.

Strong leadership is essential to articulate a clear vision, mobilize resources, and hold stakeholders accountable. It also plays a critical role in navigating political dynamics, securing buy-in from diverse actors, and maintaining momentum across electoral cycles and administrative changes.

Good leadership and multi-sectoral coordination will help to avoid duplication and fragmentation of digital health efforts; maximize the impact of limited resources through joint planning and shared infrastructure; build resilient, interoperable systems that serve citizens across sectors; and ensure that digital health initiatives are inclusive, sustainable, and aligned with national priorities.

This strategic objective is not just about managing projects, it's about building a governance ecosystem that enables digital health to thrive as a transformative force for public health and national development.

2.7 Support Innovation in Digital Health

Innovation is a driving force behind the transformation of health systems worldwide, and FSM is no exception. While FSM has begun exploring digital health innovations, such as telemedicine, mobile health applications, and electronic public health program management systems, these initiatives remain largely in pilot phases. To move from experimentation to scale, FSM must cultivate a supportive ecosystem that nurtures innovation, ensures sustainability, and aligns with the country's unique context.

Limited infrastructure and constrained human and financial resources present both challenges and opportunities for innovation. Solutions must be locally adapted, designed to function in low-resource settings, accommodate intermittent connectivity, and be intuitive for users with varying levels of digital literacy. Innovation must also be inclusive, addressing the needs of underserved populations, including those in remote islands, people with disabilities, and communities with limited access to health services.

Currently, the expansion of electronic health records (EHRs) across health facilities is a promising step, but full implementation is hindered by infrastructure gaps, workforce limitations, and inconsistent data standards.

Similarly, mobile health apps and digital tools for public health program management show potential, but their scalability is constrained by the absence of a coordinated innovation strategy, sustainable funding, and regulatory support.

To unlock the full potential of digital health innovation, FSM must:

- Create enabling environments for experimentation, learning, and adaptation.
- Establish clear pathways for piloting, evaluating, and scaling successful innovations.
- Foster partnerships with academia, startups, regional bodies, and development partners to co-create solutions tailored to FSM's needs.
- Ensure regulatory readiness, including data protection, ethical oversight, and interoperability standards.

Innovation should not be limited to technology alone—it must also encompass new models of service delivery, community engagement, and capacity-building. For example, telehealth can revolutionize access to specialist care, continuing medical education, and diagnostics, especially for remote islands. Mobile apps can support maternal health tracking, immunization reminders, and outbreak reporting. Digital tools can streamline public health program management, improving efficiency and accountability.

To support this vision, FSM's Digital Health Strategy will:

- Pilot and evaluate innovative solutions such as telemedicine platforms, mobile health apps, and digital public health management systems.
- Establish an innovation fund to provide seed funding for promising ideas and scale-up efforts.
- Leverage telehealth for in-country and overseas consultations, diagnostics, and training, reducing travel costs and improving access to care.
- Partner with regional and global actors including WHO, SPC, ASTHO, PHIN, universities, and tech innovators to co-develop and adapt solutions for FSM's context.

By embedding innovation into the digital health strategy, FSM can leapfrog traditional barriers, improve health outcomes, and build a resilient, future-ready health system. Innovation must be guided by local ownership, evidence-based decision-making, and a commitment to equity and sustainability.

3. Implementation Framework

3.1 Monitor, Evaluate, and Innovate

A strong Monitoring, Evaluation, and Learning (MEL) framework is critical to ensuring the successful implementation of the Digital Health Strategy. It enables stakeholders to track progress, assess effectiveness, identify gaps, and make evidence-based adjustments to improve outcomes and ensure sustainability.

Currently, digital health monitoring and evaluation systems are limited in both scope and capacity. The absence of real-time data, structured feedback loops, and standardized performance indicators hinders the ability to measure the impact of digital health interventions and respond promptly to emerging challenges.

To address these gaps, the strategy will prioritize the development and institutionalization of a comprehensive MEL framework that supports adaptive management and continuous innovation. This will be achieved through the following key actions:

- Establish a comprehensive MEL framework with clearly defined goals, indicators, baselines, and targets aligned with national health priorities and global digital health benchmarks.
- Develop and deploy real-time digital dashboards that provide timely, disaggregated data to support decision-making at national, state, and facility levels.
- Institutionalize regular digital health maturity assessments to evaluate progress across key domains such as governance, infrastructure, workforce, interoperability, and data use.
- Strengthen MEL capacity at all levels by investing in training, tools, and systems that enable health workers, program managers, and policymakers to collect, analyze, and use data effectively.
- Establish feedback loops and learning mechanisms to ensure that insights from implementation are systematically captured and used to refine strategies, scale successful innovations, and discontinue ineffective approaches.
- Promote transparency and accountability by publishing periodic progress reports and engaging stakeholders—including communities, development partners, and the private sector—in the review and learning processes.

By embedding robust monitoring, evaluation, and innovation mechanisms into the strategy, the digital health ecosystem will remain responsive, resilient, and aligned with the evolving needs of the health system and the population it serves.

3.2 Risk Mitigation Strategies

The implementation of the Digital Health Strategy faces several potential risks that could undermine progress and sustainability. Proactively identifying and addressing these risks is essential to safeguard investments, maintain service continuity, and build trust among stakeholders.

Key Risks and Mitigation Measures

1. Infrastructure Failure
    - *Risk:* Unreliable power supply, poor internet connectivity, and aging hardware can disrupt digital health services.
    - *Mitigation Strategies:*
        - Invest in resilient infrastructure, including solar-powered backup systems and redundant internet connections.
        - Establish service-level agreements (SLAs) with technology providers to ensure timely maintenance and support.
        - Implement cloud-based solutions with offline functionality to maintain operations during outages.
2. Cybersecurity Threats
    - *Risk:* Increasing digitization exposes health systems to data breaches, ransomware attacks, and unauthorized access.
    - *Mitigation Strategies:*
        - Develop and enforce national cybersecurity policies and protocols tailored to health data protection.
        - Conduct regular vulnerability assessments and penetration testing.
        - Implement multi-factor authentication, encryption, and secure data storage practices.
        - Train health workers and IT staff on cybersecurity awareness and incident response.
3. Workforce Attrition and Capacity Gaps
    - *Risk:* Loss of skilled personnel and insufficient digital literacy among health workers can hinder implementation.

- *Mitigation Strategies:*
    - Establish continuous professional development programs focused on digital health competencies.
    - Create incentives and career pathways to retain skilled digital health professionals.
    - Integrate digital health training into pre-service education for health and IT professionals.

4. Funding Gaps
    - *Risk:* Inconsistent or insufficient funding can stall implementation and limit scalability.
    - *Mitigation Strategies:*
        - Diversify funding sources by engaging government, development partners, and private sector stakeholders.
        - Integrate digital health priorities into national health budgets and donor frameworks.
        - Demonstrate value-for-money through cost-effectiveness analyses and impact evaluations.
5. Resistance to Change and Low Adoption
    - *Risk:* Stakeholders may resist new technologies due to lack of trust, familiarity, or perceived complexity.
    - *Mitigation Strategies:*
        - Engage stakeholders early through participatory design and inclusive consultations.
        - Communicate benefits clearly and consistently through targeted advocacy and awareness campaigns.
        - Provide user-friendly tools and ongoing support to encourage adoption and sustained use.
6. Legal and Regulatory Gaps
    - *Risk:* Absence of clear legal frameworks can delay implementation and raise ethical concerns.
    - *Mitigation Strategies:*
        - Develop and enforce digital health regulations covering data privacy, interoperability, and accountability.
        - Align national policies with international standards and best practices.
        - Establish governance structures to oversee compliance and ethical use of digital technologies. By embedding these risk mitigation strategies into the implementation framework, the Digital Health Strategy will be better positioned to deliver sustainable, secure, and equitable health outcomes.

3.3 Gender and Equity Considerations

- Ensuring equity and inclusion is a cornerstone of FSM's Digital Health Strategy. The implementation modalities must actively address disparities in access, use, and benefit from digital health technologies, particularly among vulnerable and marginalized groups.

  Key considerations include:

  - Addressing Gender Disparities: Women and girls in FSM, especially in remote areas, often face barriers to accessing digital tools due to cultural norms, caregiving responsibilities, and limited digital literacy. Implementation efforts will include targeted outreach, training, and content tailored to women's health needs and communication preferences.

  - Ensuring Accessibility for People with Disabilities: Digital health platforms will be designed to be inclusive and accessible, incorporating features such as screen readers, voice commands, and simplified interfaces. Training materials and health content will be adapted to accommodate various physical, sensory, and cognitive disabilities.

- Inclusive Design and Participation: Community engagement processes will ensure representation from diverse groups, including women, youth, elders, and persons with disabilities. Their input will inform the design, rollout, and evaluation of digital health interventions.

- Equitable Service Delivery: Implementation will prioritize underserved populations in outer islands and low-resource settings. This includes deploying mobile health units, offline-capable tools, and culturally appropriate communication strategies.

- Monitoring Equity Outcomes: Disaggregated data by gender, age, location, and disability status will be collected and analyzed to monitor equity in access, usage, and health outcomes. These insights will guide adaptive planning and continuous improvement.

By embedding gender and equity considerations into the implementation framework, FSM aims to ensure that digital health transformation benefits all citizens, leaving no one behind.

3.4 Implementation Timeline

The strategy will be implemented over a five-year period (2026–2030), with clearly defined milestones, annual priorities, and mechanisms for monitoring progress. Each year will be guided by an Annual Operational Plan (AOP) that translates strategic objectives into actionable activities, assigns responsibilities, and sets deadlines.

3.4.1 Phased Approach

The implementation will follow a phased approach:

- Year 1 (2026): Foundation and Mobilization
    - Establish governance and coordination structures.
    - Finalize baseline assessments and data collection.
    - Develop detailed operational plans and budgets.
    - Initiate capacity-building activities for key stakeholders.
    - Assess ongoing pilot digital health interventions and provide the required support.
    - Assess the need for new pilot digital health interventions
    - Conduct Annual Review Conference to assess progress and plan for the new year
- Year 2 (2027): Scale-Up and Early Results
    - Initiate the development and implementation of new pilot Interventions.
    - Strengthen monitoring and evaluation (M&E) systems.
    - Begin stakeholder engagement for policy and advocacy work.
    - Conduct annual reviews to assess progress.
- Year 3 (2028): Consolidation and Mid-Term Review
    - Conduct a comprehensive Mid-Term Review (MTR) to assess effectiveness, efficiency, and relevance.
    - Adjust strategies and operational plans based on MTR findings.
    - Deepen integration with national and sub-national systems.
    - Enhance cross-sectoral collaboration and resource mobilization.
- Year 4 (2029): Optimization and Innovation
    - Implement refined strategies and scale innovative approaches.
    - Strengthen sustainability mechanisms (e.g., local ownership, financing).
    - Intensify knowledge sharing and documentation of best practices.
    - Prepare for transition planning and exit strategies where applicable.
- Year 5 (2030): Evaluation and Transition
    - Conduct a Final Evaluation to measure impact and outcomes.

- Document lessons learned and success stories.
- Develop a sustainability and transition plan for post-2030.
- Disseminate results to stakeholders and the public.

3.4.2 Annual Operational Planning

Each year, an Annual Operational Plan (AOP) will be developed through a participatory process involving all key stakeholders. The AOP will:

- Break down strategic objectives into specific, measurable activities.
- Assign lead and supporting entities for each activity.
- Define timelines, resource requirements, and performance indicators.
- Include risk mitigation strategies and contingency plans.

3.4.3 Monitoring Milestones

Key milestones will be tracked annually, including:

- Completion of baseline and endline assessments.
- Number of activities implemented vs. planned.
- Progress toward key performance indicators (KPIs).
- Budget execution rates.
- Stakeholder satisfaction and engagement levels.

Appendix A: Definitions and Acronyms

ADB – Asian Development Bank

ASTHO – Association of State and Territorial Health Officials

AOP – Annual Operational Plan

CHC – Community Health Center

CRVS – Civil Registration and Vital Statistics

DOJ – Department of Justice

EHR – Electronic Health Record

FSM – Federated States of Micronesia

HIS – Health Information System

HL7 FHIR – Health Level Seven Fast Healthcare Interoperability Resources

ICD-10 – International Classification of Diseases, 10th Revision

ICT – Information and Communication Technology

KPI – Key Performance Indicator

M&E – Monitoring and Evaluation

MEL – Monitoring, Evaluation, and Learning

PHIN – Pacific Health Information Network

SDG – Sustainable Development Goal

SPC – Pacific Community (Secretariat of the Pacific Community)

UNDP – United Nations Development Programme

UNICEF – United Nations Children's Fund

VSAT – Very Small Aperture Terminal

WHO – World Health Organization