

HEALTHCARE



Smart Healthcare Initiative (SHI)

Securing Smart Healthcare for All Americans



Executive Summary

The **Smart Healthcare Initiative (SHI)** aims to modernize, secure, and optimize the United States healthcare ecosystem through a digitally integrated, resilient, and patient-centric approach. As healthcare becomes increasingly digitalized—with interconnected ICT systems, AI-enabled diagnostics, EHRs, and virtual care platforms—the security, reliability, and accessibility of these systems must be elevated to critical infrastructure standards.

The initiative responds to the sector's exponential technological growth and its accompanying vulnerabilities by establishing a **comprehensive, cyber-resilient infrastructure**. It emphasizes data interoperability, secure device integration, telehealth expansion, AI-driven diagnostics, and end-to-end data protection. The vision includes ensuring uninterrupted patient care even during hybrid or cyber threats and emergencies, with special attention to **home-based and decentralized care settings**.





Mission

To modernize and secure the healthcare ecosystems through resilient digital infrastructure, ethical innovation, and equitable access—building a cyber-smart, patient-centric future.

Why Now?

80% of healthcare systems rely on digital infrastructure—but cyber incidents are rising 3x faster than other sectors

Remote care, AI diagnostics, and smart devices have redefined patient care—but interoperability and security gaps remain

Critical health data is a prime target for cybercrime, risking lives and trust



Our Approach

Pillar	Key Actions
Cyber Resilience	Fortify networks, secure devices, create defense playbooks
Interoperability	Standardize data flows across systems and devices
Workforce Uplift	Launch SMART Health Talent Pipeline and micro-credentials
Equity & Access	Expand smart care to rural and underserved communities
Innovation Pilots	Deploy Smart-enabled logistics and AI diagnostics

Smart Infrastructure Modernization

Objective: Build secure, interoperable digital infrastructure across healthcare systems.

Actions:

- Standardize EHR formats and APIs for seamless data exchange.
- Integrate emerging technologies (AI, IoMT, VR, blockchain) into healthcare workflows.
- Develop a national data lake architecture for secure health data pooling and analysis.

Cybersecurity & Critical Infrastructure Protection

Objective: Harden cyber defenses across all layers of healthcare delivery.

Actions:

- Designate healthcare ICT as critical infrastructure under national cyber defense frameworks.
- Establish real-time threat monitoring centers and secure communication protocols for medical devices.
- Create hospital-level “Smart Defense Playbooks” and conduct joint cyber drills with national security partners.

Preparedness & Continuity Planning

Objective: Ensure operational continuity and minimum service disruption during crises.

Actions:

- Continuity-of-operations plans (COOPs) for all major healthcare providers.
- Develop Smart backup systems for patient data and critical devices.
- Incorporate home-care cyber contingency models in preparedness planning.

Workforce Development & Digital Literacy

Objective: Equip healthcare professionals with skills for a cyber-smart, tech-enhanced environment.

Actions:

- Launch “Smart Healthcare” certification programs integrating cybersecurity, data ethics, and digital diagnostics.
- Fund partnerships with academic institutions to develop curriculums in bioinformatics, healthcare AI, and cyber hygiene.

Equity and Access Expansion

Objective: Bridge the digital divide in healthcare.

Actions:

- Deploy telehealth and remote monitoring hubs in rural and underserved areas.
- Subsidize smart devices for patients lacking digital access to care.
- Integrate linguistic and accessibility features in digital health platforms.

Governance, Policy & Compliance

Objective: Create enabling legal frameworks and compliance mechanisms.

Actions:

- Update national standards for healthcare cyber hygiene (e.g., NIST 800-66, HIPAA Tech Supplements).
- Establish a Smart Health Oversight Commission to track progress and data integrity.
- Develop enforceable protocols for ethical AI use in diagnosis and treatment.





Outcomes & KPIs

Goal	Target Outcome	Metric Examples
Reduce cyber incidents	≥75% decrease in critical healthcare breaches	Annual national incident reports
Improve interoperability	100% of providers meeting data exchange standards	API integration rate, patient data flow index
Expand equitable digital care	+30 million underserved patients reached	Telehealth usage rates, care accessibility surveys
Boost digital workforce readiness	500,000 SMART-certified professionals trained	Program graduation metrics, retention data



Partner Engagement Roadmap

Strategic Partner Categories

To streamline collaboration and clarify value exchange



Partner Type	Role in NSHI Ecosystem
Federal & State Agencies	Policy alignment, regulatory oversight, funding
Healthcare Providers & Networks	Early adopters, pilot sites, feedback channels
Tech & Cybersecurity Companies	Infrastructure development, AI, IoMT, cybersecurity
Academia & Research Institutions	Workforce pipeline, R&D, data science
Equity & Community Advocates	Outreach, trust-building, culturally informed tech integration
Insurance & Payers	Reimbursement models, access incentives, innovation funding
Pharmaceutical & Biotech Firms	Smart trials, genome security, biosurveillance partnerships



Engagement Phases & Tactics

Phase I: Alignment & Co-Visioning (Months 1–3)

- Conduct national briefings and sector-specific roundtables.
- Host an NSHI Summit to co-develop use cases and shared value outcomes.
- Develop a Public-Private Partnership (PPP) charter aligned with ESG and national security goals.

Phase II: Pilot & Innovation Hubs (Months 4–12)

- Launch regional Innovation Hubs across U.S. states and Territories.
- Deploy proof-of-concept projects with integrated digital health, AI diagnostics, and cybersecurity systems.
- Implement Smart-based models in logistics-heavy hospital systems and drone-integrated rural networks.

Phase III: Scale-Up & Institutionalization (Year 2–5)

- Codify interoperability, talent certification, and cyber-hygiene standards into contracts and grants.
- Incentivize system-wide adoption via bundled payment models and advanced alternative payment models (APMs).
- Establish a National Smart Health Partner Network with regional partners for sustainability.



Engagement Assets & Channels

Smart Learning Environments (SLEs):

Share and learn with strategic partners

Webinars

Access critical information, resources, and insights across partner groups.

Co-innovation

Co-create Smart Healthcare solutions with communities.

SMART Talent Pipeline

Recruit, train, and place Smart health professionals.





Performance & Relationship Management

Establish KPIs for partner contribution and system impact.

Utilize stakeholder dashboards to track real-time partner impact (e.g., threat response, interoperability levels).

Create recognition frameworks (Smart Healthcare Certifications, Annual Awards).





Partnership Opportunities

Join us to co-build a secure Smart Healthcare future:

- Tech deployment (AI, IoT, VR, blockchain)
- Regional Innovation and Tech Hubs
- Cyber Readiness Sprints
- Smart Healthcare Talent Accelerator collaborations
- Co-led by public agencies, health systems, cybersecurity experts, community leaders





Projected Impact

- Fewer (major) cyber incidents in healthcare
- New patients reached via smart access
- Professionals certified in Smart healthcare & cyber

***Join us for securing Smart Healthcare
for all Americans***

