

In Rwanda, a young mother named Mutesi takes her child to the local clinic for a persistent cough. The clinic records her visit in one system — the local EMR. When the child is referred to the district hospital, the staff there rely on a different system.

While the government is working to ensure continuity, many health systems are continually faced with fragmentation challenges. The clinic issues a local ID; the hospital expects a national one. Lab panels use different codes. The clinic syncs hourly; the hospital overnight. Records exist, but rules clash.

Meanwhile, district officials lack one truth. One dashboard counts stock "dispensed," another "delivered." Reorder thresholds differ. Weeks close on different days. Facility names don't match the registry. Outreach lists pull from different sources, so teams double-book and still miss patients.

Technology is present, but without governance to align systems, define rules of trust, and ensure continuity, flow stops at program boundaries. Patients face gaps in care and systems face gaps in truth.

# The Problem: Shared Systems Without Shared Rules

Many LMICs have health IDs, registries, and apps, but without clear governance, each tends to operate in its own silo.

#### Key issues include:

- Trust deficits between government, private sector, and NGOs.
- Data privacy concerns without safeguards.
- •Fragmented ownership of infrastructure (apps, registries, platforms), with no mechanisms to ensure continuity across them.

The result: siloed systems that don't connect, fragmented care without continuity, and wasted resources.

Rashida in Bangladesh, Naliaka in Kenya, and Sita and Josephine in India have all experienced similar episodes, where systems existed but lack of governance left care fragmented and financing misaligned. The lesson is the same: without rules of trust and stewardship of shared infrastructure, technology alone cannot deliver continuity or fairness.

# Governance for Rewired Systems: Principles and Characteristics

#### **Guiding Principles (the why)**

- ●Inclusivity: multi-stakeholder participation (government, providers, communities, innovators). Inclusivity also means aligning health governance with existing digital infrastructure IDs, payments, consent, data exchanges so assets serve multiple sectors, not just health.
- Transparency: public rules, open documentation, predictable change processes.
- Accountability: clear custodians for registries, workflows, privacy, and uptime.
- Proportionality & Trust by Design: privacy, consent, and security embedded from the start.
- Adaptability: governance and standards can evolve without breaking the ecosystem.

#### **Operating Characteristics (the how)**

- Open standards adoption & mandate: governments adopt and mandate a small set of open, well-documented standards; publish conformance profiles; provide reference implementations; and run neutral certification so innovators can plug in and access is non-discriminatory.
- Shared registries stewardship: facilities, providers, drugs, and assets managed under open data models with audited change control.
- Cross-sector alignment: Governance should align health with shared assets beyond health, e.g. IDs, payment, data exchanges and consent systems, to reduce duplication, costs, and regulatory burden.
- Neutral governance body: lightweight public or multi-stakeholder councils with published SLAs and decision logs.
- Payment & data rails with auditability: consent receipts, tamper-evident logs, traceable transactions.
- Fair access & anti-lock-in: non-discriminatory terms, portable data, and sunset/upgrade paths for systems.
- Feedback loops: frontline health workers and patients inform updates to workflows and standards.

# HOW SHARED INFRASTRUCTURE CAN BE GOVERNED

- Trust frameworks: consent, privacy, and data protection protocols.
- Shared registries: facilities, providers, drugs, and assets managed with open standards.
- •Lightweight stewardship models: independent bodies or multistakeholder councils.
- •Open standards and protocols: adopt and mandate a small set of open, well-documented standards with conformance profiles, reference implementations, and certification, so governments can ensure fairness, innovators can plug in, and communities can benefit.

### Why This Matters

- ●For patients and caregivers: confidence that their data is private and that care follows them across providers and programs, instead of getting lost in silos.
- ●For health workers: tools that interoperate and stay updated, so they spend less time reconciling fragmented systems and more time providing care.
- ●For governments and funders: stronger accountability, reduced waste, and lower regulatory overhead shared standards and auditability replace ad-hoc approvals, allowing regulators to focus on outcomes and risk instead of paperwork.
- ●For innovators: a level playing field where multiple solutions can thrive, plug into shared infrastructure, and compete on value without creating new silos or lockin.

REWIRED GOVERNANCE:

### In Closing

Mutesi's story in Rwanda, like Rashida's in Bangladesh, Naliaka's in Kenya, and Sita and Josephine's in India, shows that technology alone cannot create continuity or fairness. Governance is what ensures systems connect, data is trusted, and care flows across boundaries.

Rewiring requires more than building blocks and financing models. It requires stewardship: inclusive, transparent, and accountable governance of shared infrastructure that enables innovation while protecting trust.

Article 1 showed why rewiring is necessary.

Article 2 explained how building blocks create flow.

Article 3 revealed what it means for people.

Article 4 demonstrated how to pay for it. This article has shown who must govern it, and how.

Next, we turn to the future — how innovation and Al can thrive in a rewired, well-governed system.

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