

REWIRED IN PRACTICE:

BUILDING BLOCKS
FOR A HEALTH
SYSTEM THAT
FLOWS

Naliaka's story

Naliaka, a 52-year-old shopkeeper in rural Kenya, had long struggled with headaches and fatigue. At a local health worker visit, she was diagnosed with high blood pressure and started on medication, with instructions to return in two weeks.

Just a week later, during a routine home visit, a community health promoter noticed her pressure rising dangerously and logged her symptoms into a digital health app. An automated alert reached the sub-county hospital, where clinicians prepared in advance. When Naliaka arrived, she received immediate care, **stabilizing her within hours and preventing a potential stroke.**

This small story illustrates something profound: **it wasn't one app that saved Naliaka, but the shared infrastructure underneath — a collection of modular, interoperable building blocks connected through shared protocols.** A reliable patient profile, trustable registries, an alert system, an updated protocol, and a connected health worker combined to make sure she didn't fall through the cracks.

The Problem with Verticals

Health systems still rely on disease-specific apps and registries: a TB tool here, a maternal tracker there, an NCD dashboard elsewhere. Each works alone, fragmenting care and frustrating patients and providers.

Health workers juggle multiple logins, disconnected protocols, and duplicate work. Administrators see only partial, unreliable information, leading to wasted resources and inefficient operations.

The issue isn't that these tools exist, but that they are locked into self-contained monoliths bundling identity, workflows, and reporting inside rigid silos. Adding more only multiplies the clutter.


The way forward is a different architecture: one that unbundles these stacks into common components, and then rebundles them around the patient journey.

The Building Blocks of Flow

Every functioning health system, whether in Kenya or California, requires the same essential components. What varies is how they are contextualised and connected. In a rewired system, these become shared building blocks:

- **Patient Profiles** – Simple, usable, longitudinal records that follow patients across services and life stages.
- **Workflow Engines** – Well-defined, digitally enabled pathways that coordinate steps of care across diseases, providers, and settings.
- **Knowledge Libraries** – Computable clinical guidelines and public health protocols that are always up to date.
- **Payment Rails** – Infrastructure that connects services to financing, enabling resources to be allocated and payments to be made — whether fee-for-service, capitation, bundled payments, or outcomes-based incentives.
- **Shared Registries** – Common, trusted registries of facilities, providers, drugs, and assets that support reliability and accountability.
- **Shared Interfaces** – Shared processes and technical APIs/standards that allow any existing app, registry, EMR, or workflow to plug into the shared system.

Like Lego blocks, individually each block may seem abstract or incomplete. Together, they create flow, one patient, a unified care plan, and a comprehensive backbone of care.



Not all building blocks must be built inside health. Many already exist as digital public goods, identity systems that can anchor patient records, or digital payment rails that can power health financing, or data exchanges that can securely connect registries and services. **Rewiring means extending or integrating these, not reinventing them.**

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Building Blocks in Practice



Building blocks do not exist in isolation. They are connected through shared protocols and trust frameworks, ensuring that information, workflows, and payments can move seamlessly across programs and facilities.

For example, the “superpowers” of primary care continuity, first contact, comprehensiveness, coordination, person-centeredness, community orientation, and accountability can each be enabled through combinations of these blocks:

● **Profiles + Registries** → continuity by making care portable and accountable.

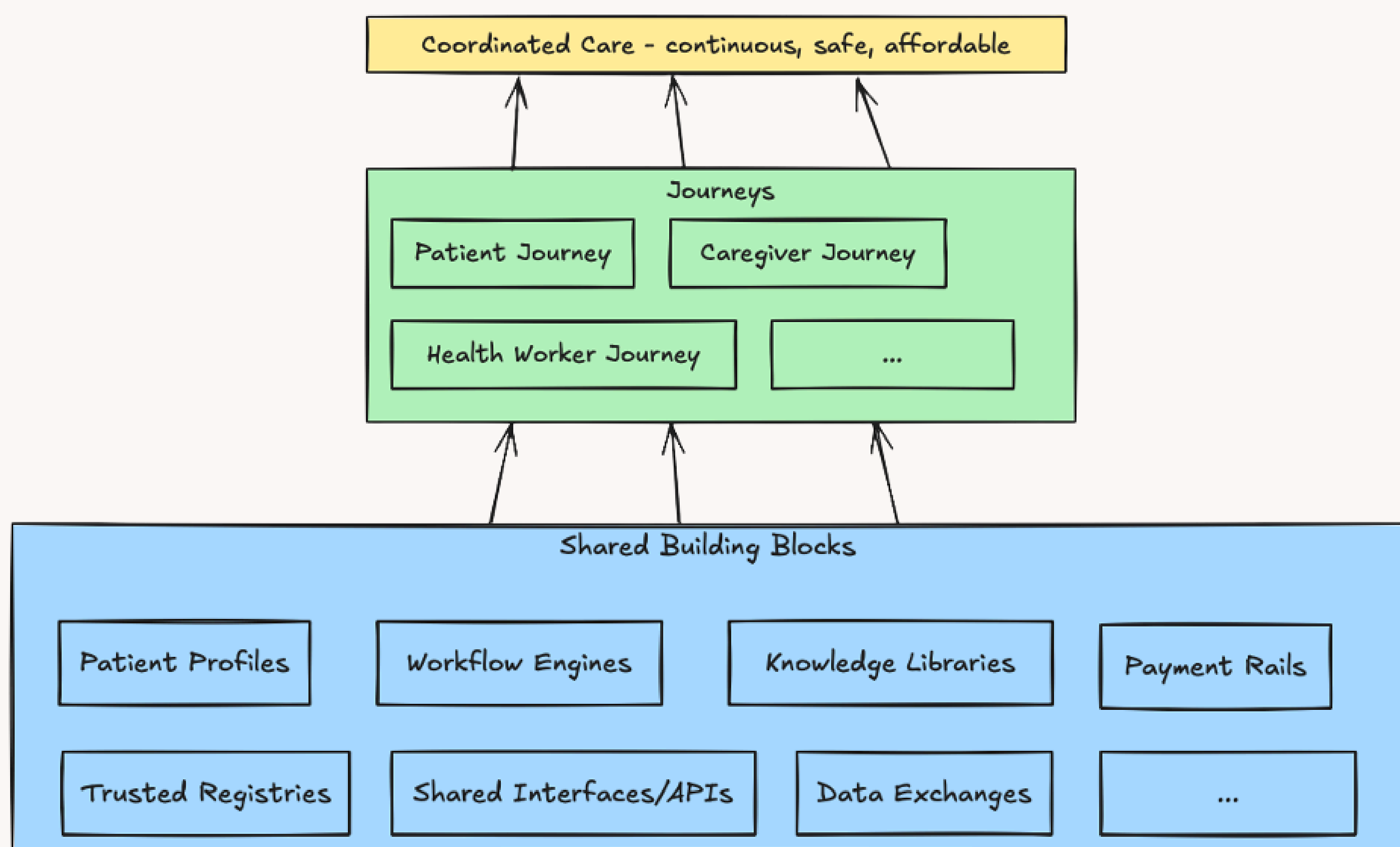
● **Workflows + Knowledge** → comprehensiveness and quality with up-to-date guidelines.

● **Payments + Workflows** → accountability by linking care steps to capitation or bundled payments.

● **Interfaces + Profiles** → coordination and person-centeredness via shared records.

● **Shared Data Dashboards** → community orientation through reliable local insights.

In this way, the “superpowers” are not lost, they are operationalized through the building blocks. Because the blocks are modular and interoperable, they strengthen not just primary care but also hospitals, programs, and financing. **This is the practical side of rewiring: blocks working together so programs, providers, and innovations flow as one system.**



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Building Blocks as Health System's Superpower

Consider a maternal health app that tracks antenatal visits. In today's vertical world, it collects data, produces reports, and maybe sends reminders. But it remains disconnected.

When plugged into building blocks, its value multiplies. The same app:

- Uses a **shared patient profile** so the woman's TB risk and diabetes medication are visible.
- Runs on workflow engines so **antenatal visits are seamlessly linked with chronic care.**
- **Draws from knowledge libraries** so updated safety guidelines are **embedded in real time.**
- Connects to payment rails so services are reimbursed without delay.

The app hasn't been replaced, it has been enriched. The health worker uses one tool. The patient experiences continuity. The system learns and adapts.

This is the heart of rewiring: don't rip out what exists, enrich it by connecting to shared rails.



The patient **experiences continuity.** The system learns and adapts.

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Towards a Wholesome Patient Care

When Naliaka seeks care again, imagine how it looks in a rewired system:

- She logs her symptoms with an AI assistant in Kiswahili or Luhya, which screens for red flags.
- A community health promoter visits, using a unified digital interface that streamlines multiple workflows, including hypertension, TB risk etc into one seamless experience.
- Her data flows into her patient profile, visible at the clinic and on her phone.
- Knowledge libraries ensure safe, current prescriptions.
- Payment rails ensure the care is covered without surprise costs.
- If she is hospitalized, the care plan follows her, linking discharge to long-term follow-up.

Each step is enabled by building blocks. They did not uproot the old systems; they simply connected them and new ones into one flow.

In Closing

Rewired in practice isn't about shiny new apps or big platforms. It's about simple, shared building blocks that make old and new systems part of one flow. The challenge now is intent and governance to bring them together.

For Naliaka, that means fewer missed visits and safer care. For health workers, it means fewer logins and less paperwork. For governments, it means less waste, more efficiency, and trusted data for planning and payment.

This article has shown the how of rewiring, the building blocks and their interconnections in practice, while Article 1 explained the why. In the next article, we turn to the people perspective showing how rewired systems create seamless journeys across programs and life stages.

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Ruchika Singhal
President
Medtronic LABS



Dr. Nina Desai
Chief Strategic Partnerships Officer
Medtronic LABS



Dr. Ashwini Sharan
Board Member,
Medtronic LABS



Sunita Nadhamuni
Strategic Advisor
Medtronic LABS



Abhishek Jain
Digital Infrastructure Architect