Carl Fourie

Delivery Lead, Digital Health and Digital Public Infrastructure
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Carl Fourie leads delivery of digital health programmes, with more than 20 years in technology, most of it in digital health. He is Product Owner for South Africa's national Health Information Exchange and the Department of Health's technical lead with the Presidency Digital Services Unit. In the Democratic Republic of the Congo he leads the strategic technical oversight of the exchange infrastructure for the Ebola response.

From 2019 to 2025 he was at PATH. As Deputy Director of Global Goods he ran the Digital Square investment portfolio: he wrote the scopes, managed the contracts with the organisations that build open-source health software, and reported to USAID, the Gates Foundation and other funders. As Deputy Director of Digital Services he led the team that advised ministries of health, WHO, UNICEF and CDC, and shaped PATH's position on digital public infrastructure for health: reusable registries, trust layers and consent.

He comes from the open-source global goods community. At Jembi Health Systems he took a core role in the inception and initial implementation of the Rwanda Health Information Exchange, the project from which the OpenHIE reference architecture grew, and he is one of two OpenHIE Associate Architects. He has worked on programmes funded by USAID, the Gates Foundation, the Global Fund, WHO, UNICEF, GIZ and the US State Department.

20+
years in technology, most of it in digital health

3
national sub-work streams in delivery under his lead

50+
vendor contracts managed in the Digital Square portfolio

Capabilities in practice

Operating in complex government environments

National Department of Health
Holds the Product Owner role for the national Health Information Exchange work stream, and is accountable to the Chief Director for its delivery.

Presidency and Department of Health
Leads the Department's technical engagement with the Presidency Digital Services Unit, across two institutions with different mandates.

Ministries and multilateral agencies
Has advised the ministries of health of South Africa, Eswatini and Madagascar, and WHO, UNICEF and CDC, on national digital health infrastructure.

Intersection between technology and domain

Health architecture
Leads health enterprise architecture for the Department, and sets the interoperability patterns that national systems follow.

From health need to design
Turned a health priority, maternal and child health, into a use case and a working-level credential design that a technical team can build against.

Workshops and training
Led technical workshops and training sessions on the use of interoperability architecture and standards in health.

Architecture and solution design

Practice

Architects interoperability workflows with a focus on reusable infrastructure architecture: sets the standards to use, and leads technical teams to the outcome.

OpenHIE

One of two Associate Architects. Designs and builds interoperability workflows with, and for, the wider community.

Health wallet

Led PATH's technical review and design of a tuberculosis health wallet, prototyped for Ghana, and led a roundtable workshop with multiple stakeholders alongside the Global Digital Health Forum in Kenya.

Digital public infrastructure for health

Reframed South Africa's digital health projects to fit the digital public infrastructure concept, and sits on the WHO working groups on digital public infrastructure for health. Shapes its use and adoption with donors and agencies, among them GIZ, UNICEF and WHO, and sets direction on it.

Extensibility of domain into the social cluster

Shared components

Designs health on the components that every sector uses: digital identity, registries, consent, verifiable credentials and data exchange.

Digital public infrastructure

Shaped PATH's position on digital public infrastructure for health: reusable registries, trust layers and consent.

Scope

His delivery record is in health. The method and the components carry over to other sectors, and the sector knowledge sits with each use case manager.

Delivery management

National programme

Leads delivery of the national Health Information Exchange through an established CSIR team, across the interoperability layer, the patient registry and the master health facility list.

Global portfolio

Ran the design, oversight and operations of the Digital Square global goods investments at PATH, across many implementing organisations. Directed deep technical review of active projects, from software development to complex health implementations across Africa, and directed his team's design and development of global standards that WHO uses and has adopted.

Emergency response

Wrote the concept architecture for the Ebola response data systems in the Democratic Republic of the Congo, and oversees the interoperability build.

Project management

Guides project oversight, schedules and delivery timeframes. Maps software and technical deliverables to contracts, and drafts scopes of work so that funding goes to the right outputs and the delivery matches the contract.

Contractor management

PATH, Digital Square
Managed more than 50 vendor contracts under a USAID award with a ceiling of USD 170 million: scopes, standards and reporting to funders.

Democratic Republic of the Congo
Reviews each subcontractor deliverable against its statement of work, and advises the prime contractor on acceptance.

National Department of Health
Sets the priorities of the Department's delivery partner, CSIR, as Product Owner.

Templated approach across use cases

Approach
Defines what each partner must deliver: the scope, the quality assurance measures, the definition of success, and the constraints of delivery.

Method
Breaks each problem into a managed process with clear constraints, which is easy to review against a contract and gives developers clear interfaces.

Product judgement
Decides, from a background in product and solution delivery, when a first release can be extended later, and when a product must be fully vetted before release.

Global goods
Led the Global Goods Guidebook, and set the maturity models that funded tools were assessed against: one standard for many teams.

National
Adapted the World Bank Digital Health Blueprint Toolkit, with the Chief Director, into a national workshop series for South Africa.

Countries
Advises countries across the WHO African Region on one maturity model, and set a use-case-first method for Madagascar's health enterprise architecture.

Holding teams to a standard, and mentorship

Standards
Sets the delivery discipline for the national team, and held global goods vendors to maturity models at Digital Square.

Teams
Grew the Jembi software team from its start. At PATH, managed technical experts in seven countries across Africa, Europe and the United States.

Mentorship
Mentored the national technical lead in Madagascar and implementation-country staff at PATH, and onboarded the work stream's new project manager.

Working with complex personalities

Donors

Managed several donor stakeholders through a Health Wallet concept and a testing harness, and aligned donors and grantees in the yearly PEPFAR investment cases.

Government

Brought the Presidency and the Department of Health to one anchor use case, through a proposal that the Presidency accepted.

Communities

Convenes senior and technical stakeholders who start from different positions: provincial departments of health, country delegations and the OpenHIE community.

Active work

Delivery leadership

National Department of Health, South Africa

Product Owner and Work Stream Executive, Health Information Exchange

Digital Health Enterprise Architect

- Leads the national work stream, and directs its delivery by an established team at the Council for Scientific and Industrial Research, across the interoperability layer, the patient registry and the master health facility list.
- Owns the work stream's decisions and priorities, and coordinates the national Architecture Review Committee, which keeps an auditable record of the team's technology decisions.
- Leads the Department's health enterprise architecture: the architecture and interoperability patterns that national systems follow, on HL7 FHIR, IHE profiles and the OpenHIE reference architecture.
- Advises the Department, beyond these roles, as a trusted senior technical advisor on the technical opportunities and projects that it reviews.

National Department of Health, with the Presidency Digital Services Unit

Technical lead, health on the national digital public infrastructure

- Champions this work within the National Department of Health as its technical reviewer. Leads the Department's engagement with the Presidency's Digital Services Unit on the infrastructure and architecture approach, and guides the CSIR, the Department's contracted agency, on how to take it forward and build it.

Democratic Republic of the Congo, Ebola response (Palladium, for the US State Department)

Interoperability Architect

- Leads the strategic technical review and oversight of a national emergency response project that supports treatment and care in the Ebola outbreak. The project builds an exchange infrastructure, from facilities to laboratory systems, that uses the national infrastructure for health.

Strategy advice to ministries of health

Ministry of Health, Eswatini (Palladium)

Senior Digital Health Strategy Advisor

- Leads the Ministry's country team through the revision and completion of the National Digital Health Strategy.
- Writes the parts of the strategy that bring it to its final form, and sets its structure, so that the Ministry can maintain it and build on it in later iterations.
- Provides architectural direction throughout the process.

Regenstrief Institute, Global Fund technical assistance to the National Department of Health

Country Project Liaison and Technical Advisor

- Leads, in country, the technical work on the National Digital Health Strategy 2025–2030, the interoperability framework and the five-year roadmap.
- Leads the enterprise architecture technical assistance and the lead digital health expertise that the Department receives, from solution design to operations and engagement with global communities.
- Shapes the Department's case to donors and global institutions, such as the World Bank and WHO, for partner engagement in further use cases.

PATH, for the World Health Organization: Global Digital Health Certification Network

Senior Digital Health Technical Advisor

- Wrote the proposal for this project while at PATH. Shaped the maturity framework, and the method by which countries assess their readiness to adopt and onboard onto the network.
- Led and facilitated the sub-regional onboarding workshop in Kigali in October 2026, as technical lead. Country delegations left with draft onboarding roadmaps.
- Advises countries as they onboard to the network, and on what onboarding means for the alignment of their local systems with interoperability and exchange approaches.

PATH, RNA Cooperative (funded by the Gates Foundation)

Digital Development Consultant

- Designed and built the network's website and member workspace, live since May 2026. Leads continued design and technical review of the platform, and advises on the future strategies of this consortium of partners.

Earlier roles



PATH, Deputy Director, Digital Services

2023 to 2025

- Led PATH's digital technical services team, which gave architecture advice, interoperability design and implementation support across country and global programmes.
- Advised ministries of health, WHO, UNICEF and CDC on digital infrastructure planning, health data governance and conformance with global standards.
- Shaped PATH's position on digital public infrastructure for health: reusable registries, trust layers and consent.
- Led PATH's technical review and design of a tuberculosis health wallet, prototyped for Ghana, on the trust framework of the WHO Global Digital Health Certification Network.
- Directed deep technical review of active projects, from software development to complex health implementations across Africa.
- Led PATH's technical contributions to the Global Ecosystem Report on the sustainability of open-source health tooling, and represented PATH at global forums.

PATH, Deputy Director, Global Goods, Digital Square

2020 to 2023

- Led the design, oversight and operations of all global goods investments and strategy in Digital Square, funded by USAID, the Gates Foundation and others.
- Wrote the scopes and directed investments into supply chain, electronic medical record, patient identity and national health information tools.
- Led the Global Goods Guidebook, and set the governance frameworks and maturity models that funded tools were assessed against.

- Curated the yearly investment cases for PEPFAR funds, and aligned them with donor objectives and grantee requests.
- Managed a distributed technical team across Africa, Europe and the United States.
- Provided architecture and standards direction to PATH country programmes funded by GIZ, WHO and UNICEF.
- Senior Technical Advisor, Digital Square, 2019 to 2020: supported the global goods strategy, mentored implementation-country staff, and promoted the adoption of HL7 FHIR in global architecture forums.

Jembi Health Systems, programme and software development management roles

2009 to 2018

- A member of the founding team. Grew the organisation with its leadership from a team of three.
- Led software development, business development and programme management, and rose from Software Development Manager to Assistant Director of Programmes and Senior Programme Manager.
- Took a core role in the inception and initial implementation of the Rwanda Health Information Exchange with the Rwanda Ministry of Health, the project from which the OpenHIE reference architecture grew.
- Built and led the core technical team for health information exchange and interoperability.
- Led programme design and a harmonised technical roadmap across projects, built on technology reuse.

South African Medical Research Council, Research Scientist

2008 to 2009

- Reviewed and designed open-source software for digital health in low-resource settings.
- Taught harmonised architecture at university level in Mozambique, and presented to decision-makers.
- Earlier: independent ICT consultant, 2000 to 2008.

Education, roles and referees

Education

- BSc Computer Science, 2004, and BSc Computer Science (Honours), 2005, University of KwaZulu-Natal. One of two students awarded a scholarship to study Medical Informatics.

Board and community roles

- SORMAS Foundation, advisory board member (2026 to present).
- OpenHIE, Associate Architect (one of two).

Languages

- English (native), Afrikaans (fluent).

Referees

- Milani Wolmarans, Chief Director: Health Systems and Digital Information, National Department of Health.
- Dr Paul Biondich, Lead Investigator, Regenstrief Institute.
- Leah Ekbladh, USA Country Lead, Madiro; former Executive Director, Digital Square.