

2024 Impact Report





A Message from Our CEO

Global health is at a crossroads. Traditional sources of funding can no longer be counted upon. This new financial reality is setting in at the same time that AI is starting to shape our collective future.

The hard truth is this: Despite years of investment in healthcare infrastructure – from NICU equipment to clinic solar panels, from vaccine refrigerators to oxygen concentrators – countries still contend with far too much broken equipment that never gets fixed. Countries also struggle to manage high-tech equipment left over from pilots, unreliable electricity, and ad-hoc supply chains that jeopardize continuous access to basic healthcare. Ministries of Health need a blueprint for how to keep healthcare running by keeping lifesaving equipment functional.

To that end, Nexleaf has been building solutions *together with* governments – not *for* governments – for the past fifteen years. We're a non-profit, but we're also a technology company. Health workers are not "beneficiaries" of our work; they are technology users. We collaborate with the doers in local health systems: nurses, biomedical engineers, vaccine logisticians, regional administrators, and all personnel tasked with treating patients while also keeping the lights on and the facility running. Ministry of Health workers are the ones who fix the fridges, plan for the rainy season, and improve health outcomes year over year. Our users are the ones sending us WhatsApp messages when they encounter a system bug or want to suggest a new feature.

The benefits of countries co-creating innovation go beyond the utility of user input and interaction. In recent weeks, it's been infuriating to watch countries lose access to PEPFAR data systems and other critical information about their own populations. Countries must own their data – and by extension their AI – as producers, rather than simply becoming passive consumers of emerging tech. AI can disrupt billion dollar industries, and we see the potential for AI to truly support Ministries of Health in distributing resources and providing better healthcare – as Jim Fruchterman, CEO of Tech Matters, and I wrote in SSIR – if we <u>invest in data now</u> and build AI and tech solutions *together with* governments.

> I suggest the following motto for global health tech: No more transition plans. If you're building for sustainable adoption from the start, that means you're deploying together with the Ministry of Health.

That requires designing with each country's existing systems in mind, building data into their existing software, and ensuring health workers have the training required to run and sustain the tech.

This goes not just for information systems, but also for energy resources like solar arrays and complex supplychain-dependent interventions like medical oxygen.

Today, with budget shortfalls, countries and donors alike want to minimize risk and avoid the obvious pitfalls of "shiny object" healthcare technology pilots. It's clear that the priority must be maintaining what is in place and making it work. Countries must be able to fix and maintain their existing facilities, technology and equipment.



Nexleaf is ready to help. We get the right data to the right people at the right time. We know how to tap the potential of AI. We facilitate the digital transformation of health equipment management for countries, so that every health worker has the data needed to improve access to healthcare for all patients, for all citizens.

Now is the time to invest in country-owned and country-operated information systems that reveal the path forward – regardless of the funding source – and keep healthcare running.

Nithya Ramanathan, CEO + Co-Founder

2024 Impact at a Glance



Protecting vaccines for 1 in 7 babies born worldwide each year

Power + Electrification

Key Impacts



26,292 **Connected Clinics** sending automated data



33 **Countries** where Nexleaf tech improves healthcare delivery



36,093 Units of medical equipment monitored remotely



\$1.4B in Vaccines protected each year

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2,613 **Distribution trips**

monitored across 31 regions to ensure safe temperatures Al-Ready Workforce

3572 Health workers trained in 2024



18M People served by hospitals

receiving power alerts



80% of Hospitals saw power availability improve with alerts



Country Partnerships

Collaboration and Co-Creation with Ministries of Health

Government ownership is key to successful systems change that lasts. We've witnessed how third-party procurement, deployment, and installation of devices can lead to disuse of technology in the field. We've also seen – with ColdTrace Transport and our Power Alerts application – how innovations succeed when health workers are engaged in tech development and promote the devices to their colleagues. Sustainable digital transformation for health at scale can only happen when the Ministry of Health owns the tech and data and drives the work from day one. Nexleaf designs and builds solutions together with our partners in Ministries of Health, integrating innovations into existing government systems to achieve long-term impact.

Rwanda

Nexleaf formalized our partnership with the Rwanda Ministry of Health and the Rwanda Biomedical Center near the end of the year. Starting in 2025, with key input from the Ministry of ICT, we are integrating real-time data on medical equipment functionality into Rwanda's equipment management system. Access to real-time data will enable new workflows and creates opportunities for responsive action. Rwanda is collaborating with Nexleaf to expand health worker capacity to access and utilize up-to-the-minute data in order to keep critical healthcare equipment functioning.

Tanzania, Pakistan + More to Come in 2025

Highlights from our country partnerships include <u>nationwide scale of ColdTrace</u> <u>Transport in Tanzania</u>, and close working partnerships with the Federal Directorate of Immunization (FDI) and UNICEF Pakistan to support <u>cold chain equipment data utilization</u> in <u>Pakistan</u>. We look forward to continuing to build together and launching additional country partnerships as we accelerate toward the Connected Clinic in 2025 and beyond!

Malawi

In May, Nexleaf and our partners in the Malawi Ministry of Health hosted a workshop to identify prototypes that put data use at the center of vaccine cold chain equipment management. The health workers who co-created these workflows are testing the prototypes now as we iterate and hone in on effective and replicable processes, supported by data integration.



The Connected Clinic: AI-Powered Healthcare Infrastructure Through the Last Mile



Nexleaf Analytics partners with countries to harness the power of data to improve health outcomes and patient care.

The Connected Clinic is our vision for a fully integrated, AI-powered solution driving resilient healthcare delivery through the last mile.

Why do we need the Connected Clinic?

Around the world, up to 40% of medical equipment deployed in clinics is broken or sitting idle.

Read on to learn more about the human cost of broken and missing equipment. →

Why We Need the Connected Clinic: The Cost of Broken and Absent Equipment

Vaccines

Vaccines save thousands of lives every year. But broken equipment along the cold chain can mean patients receive vaccines that have lost their potency, leaving them unprotected against diseases.



5%-12%

of vaccine refrigerators are broken or failing catastrophically

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9.6M
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children are at risk of ineffective immunization due to failing equipment

\$335M

Sources: Nexleaf data analyses

estimated annual waste in vaccine doses with lost potency, including delivery costs

Power

Clinics need reliable electricity to run NICU equipment, deliver medical oxygen, and keep the lights on during surgeries and births. However, in low-resource countries, frequent power failures and blackouts jeopardize patient care.

1 Billion

people get care at health clinics with unreliable power or no power

40%

1 in 3

of surgical facilities in Sub-Saharan Africa lack consistent electricity

hospitals suffered more than 1 blackout per day prior to Nexleaf's power alerts intervention

Sources: Nexleaf data analyses, <u>WHO</u>, <u>BMJ Global Health</u>

Why We Need the Connected Clinic: The Cost of Broken and Absent Equipment

Medical Oxygen

Frequent shortages and equipment breakdown result in the need to ration care, a source of significant moral distress for healthcare workers. In many health-care facilities in LMICs, pulse oximeters and oxygen are unavailable.



306M

patients who need oxygen are living in low- and middleincome countries (LMICs)

30%

of people who need oxygen receive adequate oxygen therapy, with the lowest access in sub-Saharan Africa

81%

of patients presenting at LMIC hospitals do not receive basic pulse oximetry

Maternal and Neonatal Health

Newborns and mothers need access to specialized equipment and treatments like oxytocin to ensure healthy outcomes. Unfortunately NICU equipment in many LMIC health facilities is often broken or cannot be utilized.



babies die in sub-Saharan Africa from preventable causes each year

58%

of medical oxytocin samples in Africa were damaged, suggesting failures along the cold chain

Sources: <u>BMC Pediatrics</u>, <u>The Guardian</u>, <u>BMJ Open</u>, <u>Nexleaf Medical Equipment Program</u>

Medical equipment breakdown is a serious problem, wasting resources and costing lives worldwide. Nexleaf's Connected Clinic solution harnesses the power of data and people to keep healthcare running. Learn more <u>here.</u>

Product Focus: Al and More on Nexleaf's Real-Time Data Platform



Nexleaf's medical equipment analytics platform integrates continuous data from **over 36,000** units of equipment, providing real-time data to health workers. Our Product team is constantly innovating to ensure health workers have the data they need to keep medical equipment working, so that every health facility stands ready to save lives.

New AI-Powered Features Offer Data Insights in Seconds

Health workers can ask natural language questions in their preferred language (English, Swahili, etc.) to get immediate insights and feedback on equipment status, enabling faster decision-making and smoother workflows.

Revamped Inventory Tools Drive Effective Equipment Management

Recent improvements to the platform enable advanced filtering and bulk actions – like downloading the entire inventory with one click – that help health workers do their jobs faster and better.

By launching new platform features and improving our software, Nexleaf is continuously working to ensure health workers have best-in-class digital tools for managing complex, expensive medical equipment. We're also working with Ministries of Health to train health workers and redesign processes to put realtime data at the center of health equipment management. It's all part of our work to build digital tools for health workers, digitally transform analog processes, and unlock financing for equipment repair and replacement, ensuring every clinic stands ready to save lives. Learn more about the Connected Clinic here.

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today?

and 2 hot alarms.

ColdTrace Assistant

Hello Imani! I'm here to help you with any questions you have about the cold chain data

for the Koana Islands. How can I assist you

As of the last month of data starting on

WHO alarms is *Northwest District*. It

September 20, 2024, the district with the most

reported a total of *37 alarms*. This includes

both cold and hot alarms, with 35 cold alarms

Welcome back Imani! As of the last month of

county with the lowest number of CCEs with good uptime is the *Central District*. It has **99 CCEs with good uptime** out of its total

155 CCEs, which translates to approximately *63.9%* of CCEs having good uptime.

Type a message

data starting on September 23, 2024, the

23/09/2024

Which district has the lowest uptime?

3:54 nm

6:27 pm

11:56 am

Which district had the most alarms? 6:27 pm J/

Q :

11:56 am

J

2024 Event Highlights: UNGA + GDHF

Nexleaf + Cornell Tech @ UNGA

Nexleaf and Cornell Tech hosted a workshop entitled Building the Commons for Medical Equipment Data to Serve Countries alongside the UN General Assembly in September. Over 40 participants representing PATH, The Bill and Melinda Gates Foundation, Global Health Labs, The Centre for Public Health and Development (Kenya), DHIS2, inSupply Health, and dozens of other organizations joined to discuss mobilizing data to facilitate and strengthen country management of livesaving equipment.









Nexleaf at GDHF

The Global Digital Health Forum in Nairobi in December featured Nexleafers at multiple venues. Our CEO and Co-Founder Nithya talked "Scaling AI Solutions for Integrated and Equitable Health Systems" with our Director of Emerging Products Ednah Kiome and our partners at the Patrick J. McGovern Foundation. Ednah also represented Nexleaf on a panel entitled "Future-Proofing the Vaccine Cold Chain" with our longtime partners at Qualcomm Wireless Reach. Our Country Manager for Malawi, Patience Mfune, gave a virtual presentation on "Beyond the Shiny Object: Human-Centered Process Redesign to Achieve Digital Transformation." All the while Erick Mgonda met with long-time collaborators and new connections at our beautiful booth!

Spotlight: Partnership for Innovation

The Patrick J. McGovern Foundation and Nexleaf Share A Vision for Holistic Digital Transformation

At Nexleaf, we believe that building resilient, data-powered health systems requires more than just technology. It demands a holistic digital transformation strategy that includes the processes, skills, and systems needed to sustain and scale impact. Our Connected Clinic approach digitalizes and strengthens health infrastructure, ensuring that frontline facilities can effectively manage lifesaving medical equipment. Our partnership with the Patrick J. McGovern Foundation (PJMF) has been instrumental in making this vision a reality.

Together, Nexleaf and PJMF have equipped Ministries of Health with the tools and skills to operationalize digital transformation across three key pillars: building workforce capacity, establishing data-driven maintenance processes, and developing real-time monitoring systems.

To strengthen local expertise, PJMF supported Nexleaf's collaboration with the Malawi University of Business and Applied Science to develop a data skills training program for biomedical technicians. This work ensures that healthcare workers can interpret real-time data from cold chain equipment, improving its management nationwide.

Recognizing that data alone isn't enough, we worked with PJMF to help Ministries of Health in Malawi and Tanzania transition from paper-based systems to digital, data-powered equipment management. Through data-aligned process playbooks, governments can leverage automated insights from IoT-enabled devices to reduce downtime, improve service delivery, and respond quickly to maintenance needs.

Building on this foundation, Nexleaf and PJMF are advancing an interoperable software platform for managing healthcare infrastructure. The platform operationalizes real-time medical equipment data, allowing Ministries of Health to proactively maintain equipment, allocate resources efficiently, and prevent failures in critical healthcare settings.

As AI becomes a powerful tool for global health, we look forward to continued engagement with PJMF's experts on ethical AI, data governance, and digital equity. By integrating AI into our approach, Nexleaf aims to predict and prevent equipment failures, optimize maintenance schedules, and enhance training for frontline health workers.

This partnership has strengthened Nexleaf's ability to support healthcare systems and catalyzed new collaborations with global health leaders like Gavi and UNICEF. PJMF's commitment to data-driven health solutions ensures that digital transformation reaches more communities and, most importantly, that functional medical equipment saves more lives.



The <u>Patrick J. McGovern Foundation</u> is a philanthropic organization dedicated to advancing artificial intelligence and data science solutions to create a thriving, equitable, and sustainable future for all. PJMF works in partnership with public, private, and social institutions to drive progress on our most pressing challenges, including digital health, climate change, broad digital access, and data maturity in the social sector.



2023 Financials

2023 Revenue by Source

| | 2023 | 2022 |
|----------------------------|-------------|--------------|
| Foundation & Grant Revenue | \$3,916,269 | \$14,091,988 |
| Earned Revenue | \$2,537,316 | \$1,411,895 |
| Indiv. Revenue | \$8,000 | \$50,863 |
| Total Revenue | \$6,461,585 | \$15,554,746 |



2023 Expenses

| | 2023 | 2022 |
|---------------------|-------------|-------------|
| Vaccine / Equipment | \$6,721,519 | \$4,559,826 |
| Operations | \$2,847,344 | \$1,393,704 |
| Total Expenses | \$9,568,863 | \$5,953,530 |



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Thank You to Our Funding Partners

We are grateful to have the support of many incredible funding partners. Thank you for helping to advance Nexleaf's impact in 2024.



- Gavi, the Vaccine Alliance
- Glen and Edith Reed Fund
- PagerDuty STEPtember Employee Giving Program
- The Patrick J. McGovern Foundation
- Qualcomm Incorporated
- Waldfogel Family Foundation

Additionally, we had retained working capital from prior receipts from:

- MacKenzie Scott
- Fast Forward
- Rippleworks

