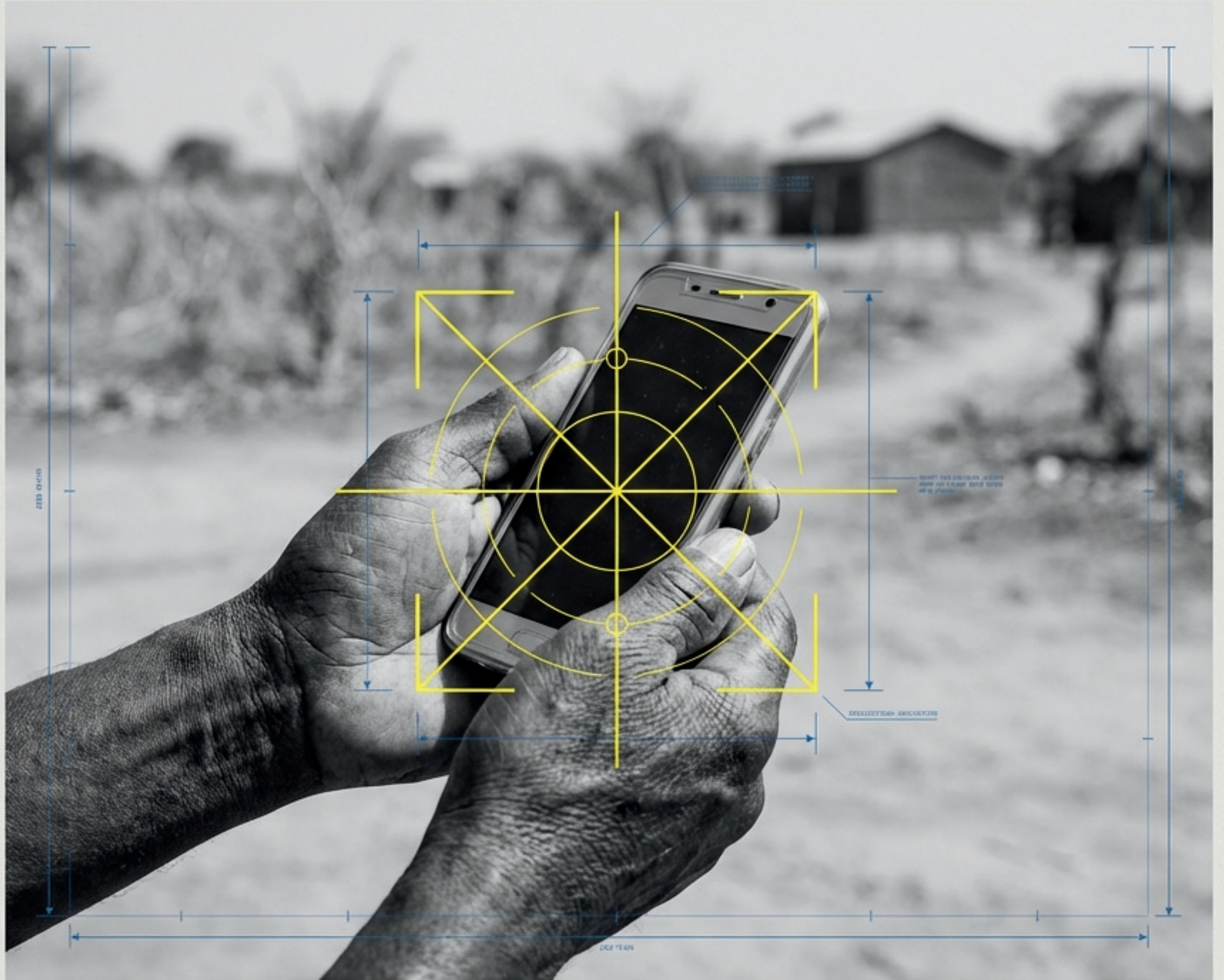


Case File: DawaMom
Location: Zambia
Subject: Maternal Healthcare

The Fairness Trap

Why a 96.71% AI success rate fails the women who need it most.



The collision of a medical crisis and a high-tech promise.

THE REALITY

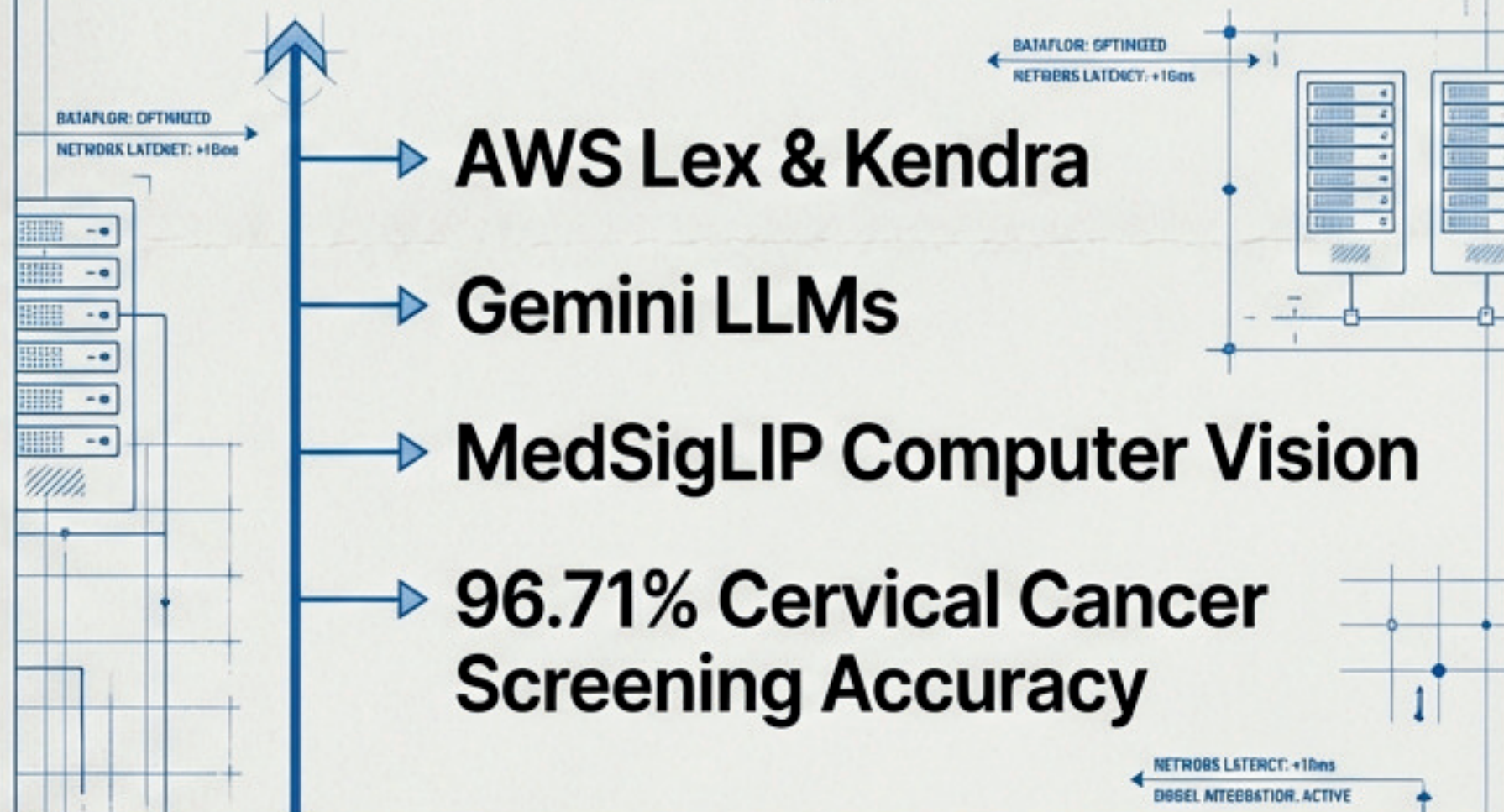
In Zambia, a newborn dies every 30 minutes.

A stillbirth occurs every hour.



THE PROMISE

The Solution:
DawaMom & GogoGemma AI.



AI was built to decentralize specialized care, but its underlying logic is currently failing the test of reality.

The provenance gap dictates whose truth actually matters.

The Standardized Dataset

	PATIENT_ID	DIAGNOSIS_CODE	MEDICATION	MEDICATION	...
1
2
3
4

	PATIENT_ID	DIAGNOSIS_CODE	MEDICATION	MEDICATION	RESIDUATION
5	...	...	...	...	...
6	1	...	...	...	...
7	2	...	...	...	...
8	3	...	...	...	...
9	4	...	...	...	...
10	5	...	...	...	...
11	6	...	...	...	...
12	7	...	...	...	...
13	8	...	...	...	...
14	9	...	...	...	...
15	10	...	...	...	...

	PATIENT_ID
1
2
3
4
5
6
7
8
9
10

For AI to truly improve healthcare...
it must reflect local realities...
[Standard platforms lack] relevant
context to the Zambian population.
— Mozilla Foundation

The Missing Context

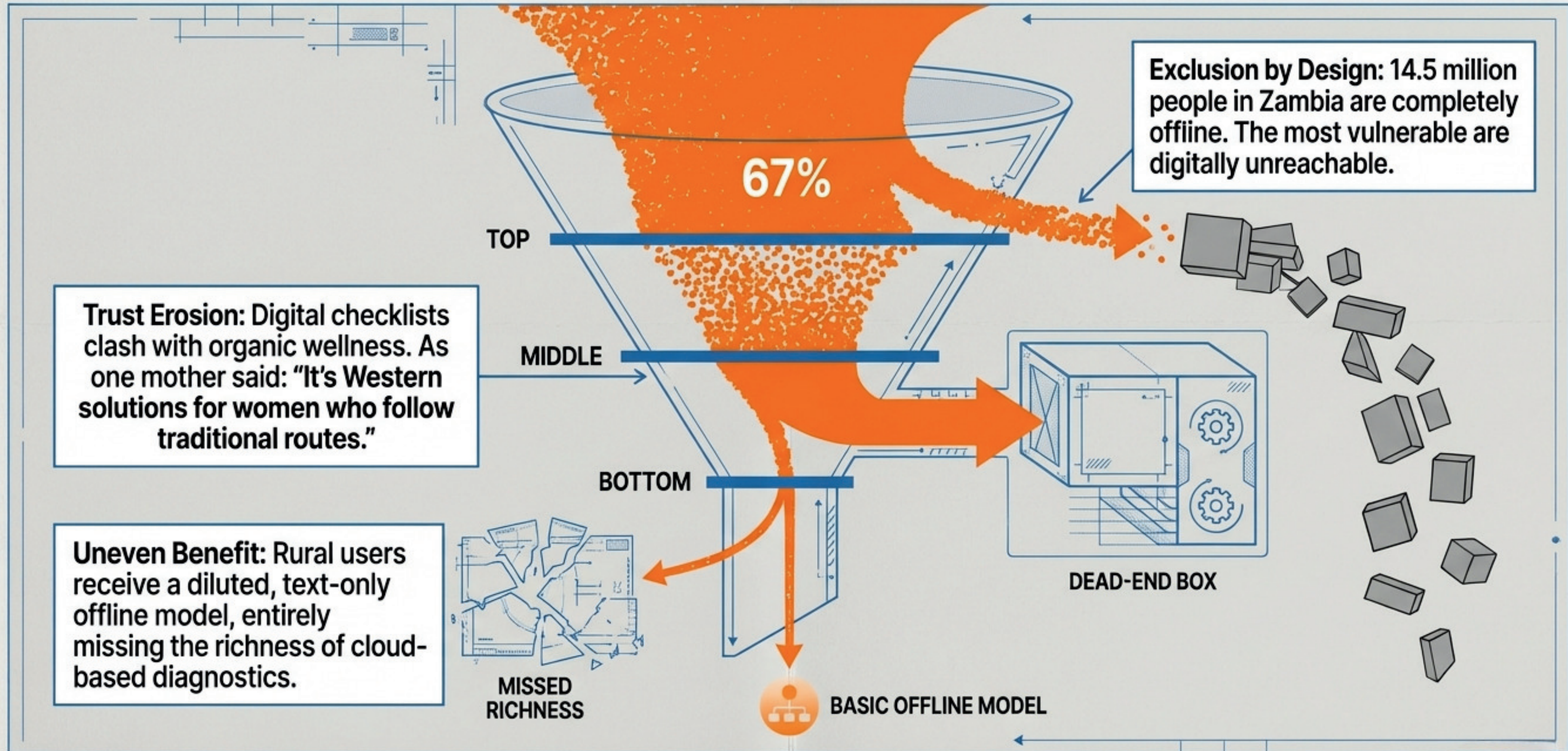
Inchila birth rituals

Traditional herbal
medicines

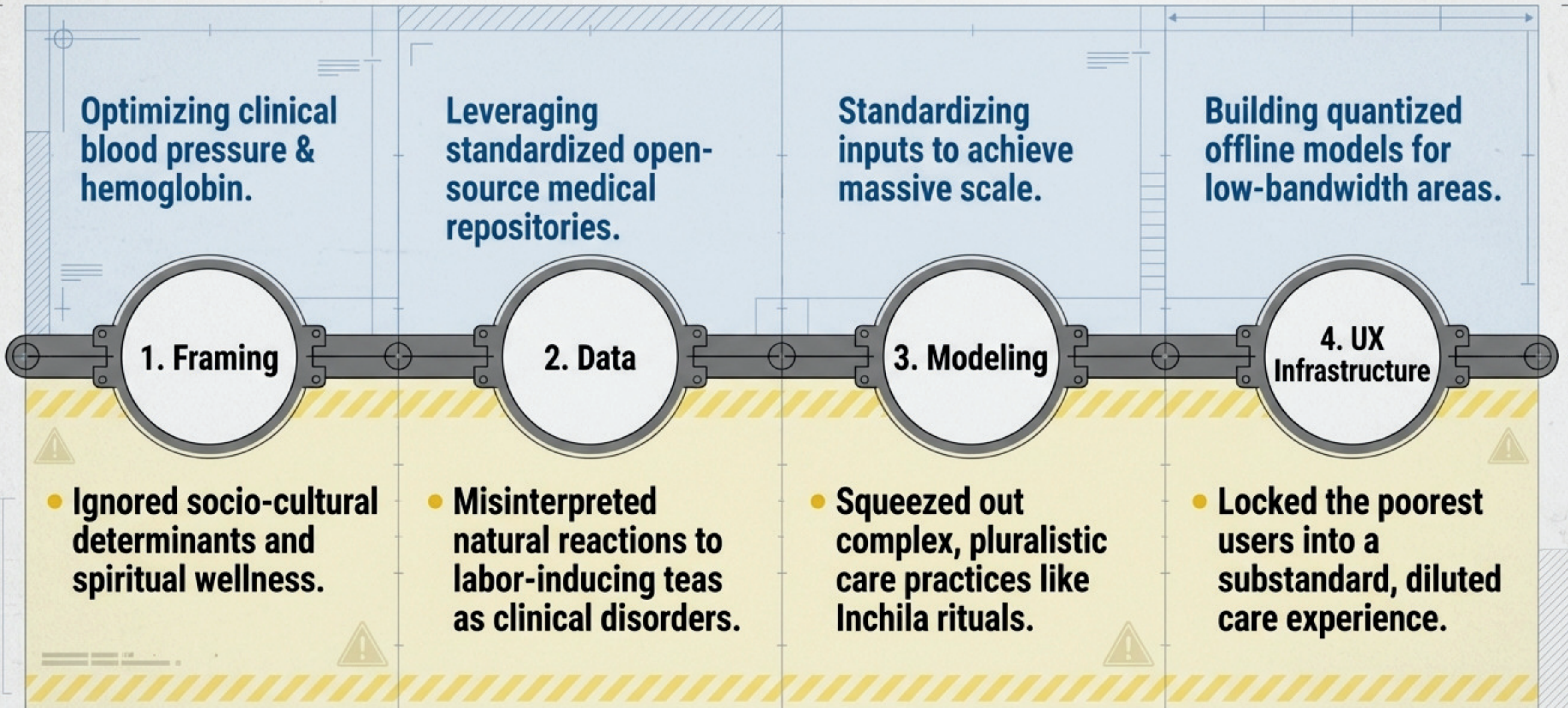
Generational maternal
family knowledge

Western biomedical norms sourced from
open-source repositories like Kaggle.
Clean, digitized, clinical.

The silent filter turns a universal tool into a hierarchy of care.



Inequality is engineered long before the first line of code is written.



A diagnostic cheat sheet for tracking where tech fails humans.

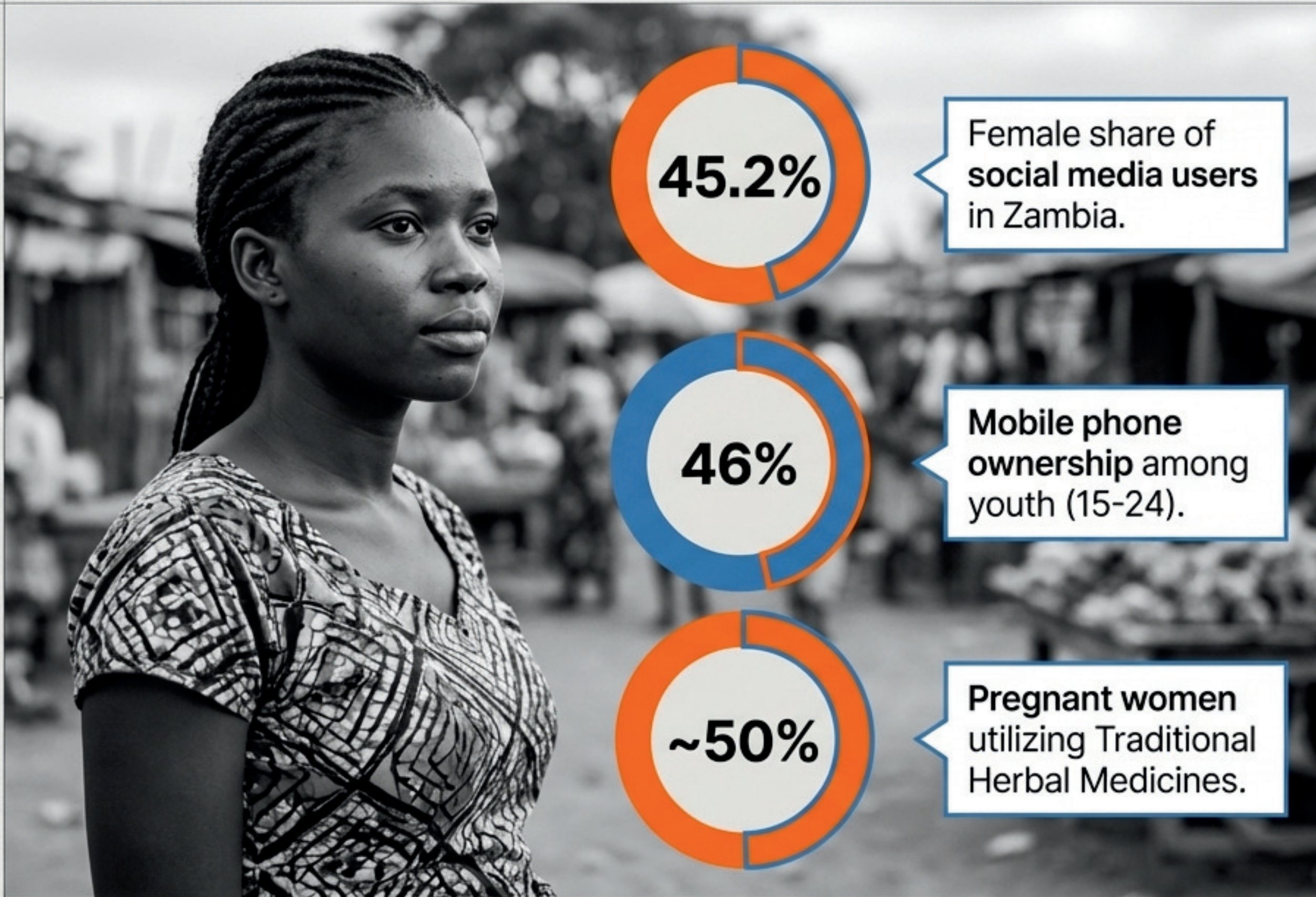
Bias Type	The Technical Assumption	The Reality on the Ground
Representation	Standardized images capture all human anatomy.	Traditional practices like the Mono root are entirely absent from the AI's vision.
Measurement	Biometrics (hemoglobin) equal holistic health.	Biological reactions to Traditional Herbal Medicines (THMs) trigger false clinical alarms.
Aggregation	A one-size-fits-all physiological norm scales best.	Universal benchmarks ignore diverse, local catalysts.
Language	English NLP models translate universally.	Colonial residue prioritizes Western clinical words over local vernacular and logic.
Deployment	The patient uses the app.	Gendered tech gaps mean pregnant women must often rely on a partner's device.

Bias is the mathematical shadow of trying to scale.



The moment a system is standardized to achieve global scale, the math implicitly decides which marginalized populations are simply averaged out. AI harm isn't AI harm isn't a glitch; it is a feature of reductionist design.

The myth of the 'Default Human' blocks epistemic justice.



Epistemic Justice demands that local knowledge is recognized as legitimate truth.

When an AI ignores the maternal family—the grandmothers and aunts who traditionally mandate delivery preparation—it is not merely incomplete. It becomes actively dangerous by enforcing a Western gaze.

The blueprint for moving from tech dreams to health justice.

Fairness is a continuous lifecycle process, not a final patch.

NIST AI Risk Management Framework

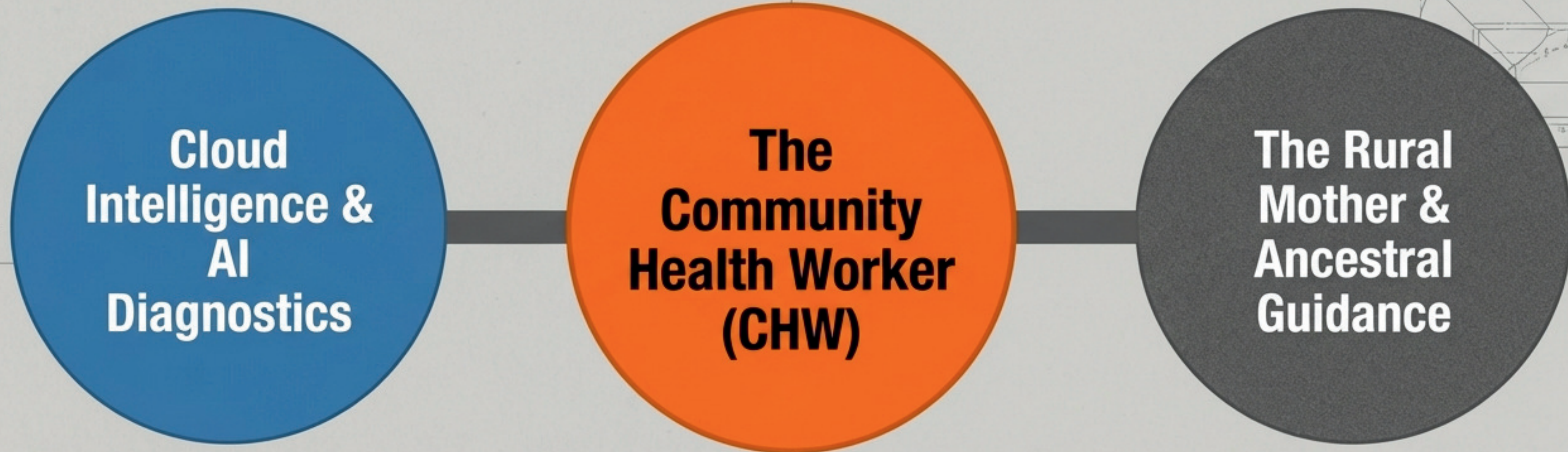
UNESCO Ethics Recommendations



The REASSURED Standard

Real-time ✓	Easy-to-collect ✓	Affordable ✓
Sensitive ✓	Specific ✓	User-friendly ✓
Rapid ✓	Equipment-free ✓	Delivered to end-users ✓

The Human-AI Hybrid: Engineering trust at the edge.



Technology cannot broker trust; only humans can. The CHW acts as the essential Trust Broker, actively translating the AI's clinical outputs into the mother's cultural reality, smoothing the friction between digital truth and organic wellness.

Zambia is writing the new rules for regional AI sovereignty.



The Milestone: Zambia becomes the first African nation **to join the HealthAI Global Regulatory Network (GRN).**

The Mandate:
Shifting from passive recipients of “AI for Good” experiments to active regulators. Building in-country capacity to guarantee that artificial intelligence serves as an engine for equity, rather than a mechanism for further colonial exclusion.

48:00:00

The 48-Hour Challenge.

- 1. Look at a product you build, fund, or oversee today.**
- 2. Identify the exact demographic group that benefits the least from its current design.**
- 3. You have 48 hours to document, in writing, the structural or technical changes required for that group to benefit first.**

If you are building for everyone, but ignoring the margins, you are designing for no one.

**Follow our work on
GlobalSouth.ai**

