

## AI in both Self-Care and Clinical Workflows to Enhance Risk Awareness, Testing, and Linkages Digital Platforms to Enhance HIV Testing and Linkage Coverage

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CQUIN dHTS Meeting | July 9 - 12, 2024 – Durban, South Africa

### Innovate. Empower. Achieve Health Equity.





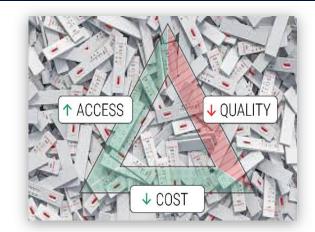
## **About Audere**

- **Co-headquartered** in South Africa and the US
- Our team: Global innovators from Microsoft, Amazon, Google, Meta, GE Health, NIH, and global health delivery at Aurum and the Gates Foundation
- **Our origin:** Non-profit founded through generous funding from the Gates Foundation in 2018
- Our focus: Enable global health actors to accelerate health equity in resource-limited settings by codesigning quality, safe AI-digital solutions and building AI capacity across the health ecosystem

## Rapid Tests Enable Cost Effective Access to a Diagnosis But data on use and effective interventions are lacking

#### Challenges

- **Testing and health needs:** result fear, lack of self-identified relevance and trust which can prevent self-care uptake, especially for stigmatized testing.
- Accurate use and results: decentralized care settings can increase risk of test misadministration, result misinterpretation, or comprehension.
- Access to appropriate care: prevention and care delivery/retention suffer due to stigma, cost, and access barriers.
- **Trusted Surveillance Data:** results face trust issues due to inflated counts, inaccurate patient information, and diagnostic errors.



"But our local clinics they judge people, and they gossip .... it's not safe with us"



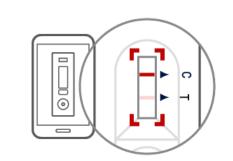
#### HealthPulse AI: Building Blocks for the Digital Health Ecosystem Augments health systems with an interoperable toolkit for effective care delivery

HealthPulse AI Toolkit AI for any health journey



Omnichannel Language Model service for relatable conversations empathetic counseling and other use cases Add fluid

IFU service for Custom Workflows (computer vision) auto-detect test and provide accessible instructions to reduce misadministration



CV service for Rapid Test Result Digitization surveillance, decision support, training, anomaly detection, automation

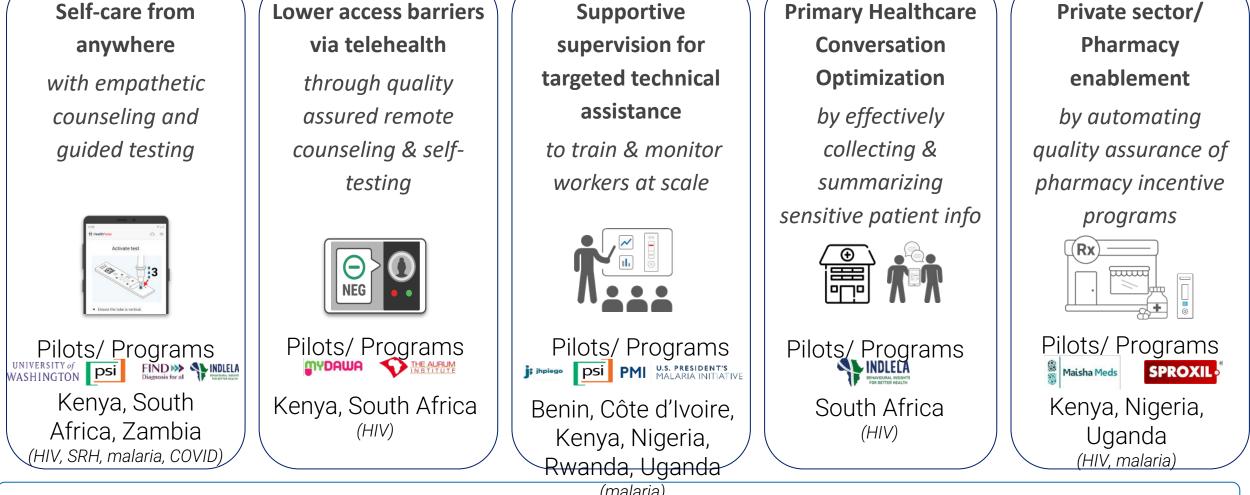


Prioritize Health Needs & Risks (predictive analytics, machine learning) ensure timely follow up and quality care



### HealthPulse AI System Strengthening Use Cases Delivering equitable access to quality care and insights

Self-care from anywhere with empathetic counseling and *quided testing* 



Supports disease surveillance across areas including HIV, malaria, MNCH, STI, NTD, NCD

Program Spotlight: Clinical Decision Support for Telehealth in the Private Sector in Kenya Lower access barriers via telehealth Quality assured remote counseling & self-testing unlocks new channels for prevention, treatment, & retention.



Pilots/Programs



Kenya, South Africa (HIV)



## Lower Access Barriers via Telehealth

Quality assured self-testing unlocks new channels for prevention, treatment, & retention



NEG



Al verified
results
(only clinician
sees results)

5 Clinician reviews results remotely using Al to support confident interpretation 6 Counselling, access to PrEP or PEP via delivery or referral for confirmatory testing & care



Monitoring for targeted clinical support

FRED HUTCH MYDALLA

**j inpiego** audere WASHINGTON BILL&MELINDA GATES foundation

## Impact of AI on Telehealth Pharmacy Program in Kenya

## AI quality assurance and enhanced case finding

AI supports clinicians during consultations & automates performance monitoring of clinicians.

<u>Al correctly identified 62% of</u> <u>positives</u> missed by clinician review (*TPR: 0.5%*).



# Cost efficiencies and convenience

Real-time image quality checks reduce delays for clients & clinicians. With Al-assisted image capture <u>98.9% of images were interpretable</u> <u>by clinicians reducing need to retest</u> if clinician struggled to interpret the image.

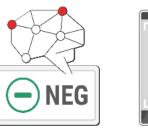


Al robustness & accuracy

Al is robust to real-world conditions and interprets with a high level of accuracy.

<u>AI performing at 97% accuracy</u> and is continuously monitored & tuned as needed.

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**Program Spotlight:** Using an AI Enabled Integration Toolkit for Differentiated Care Pathways in South Africa

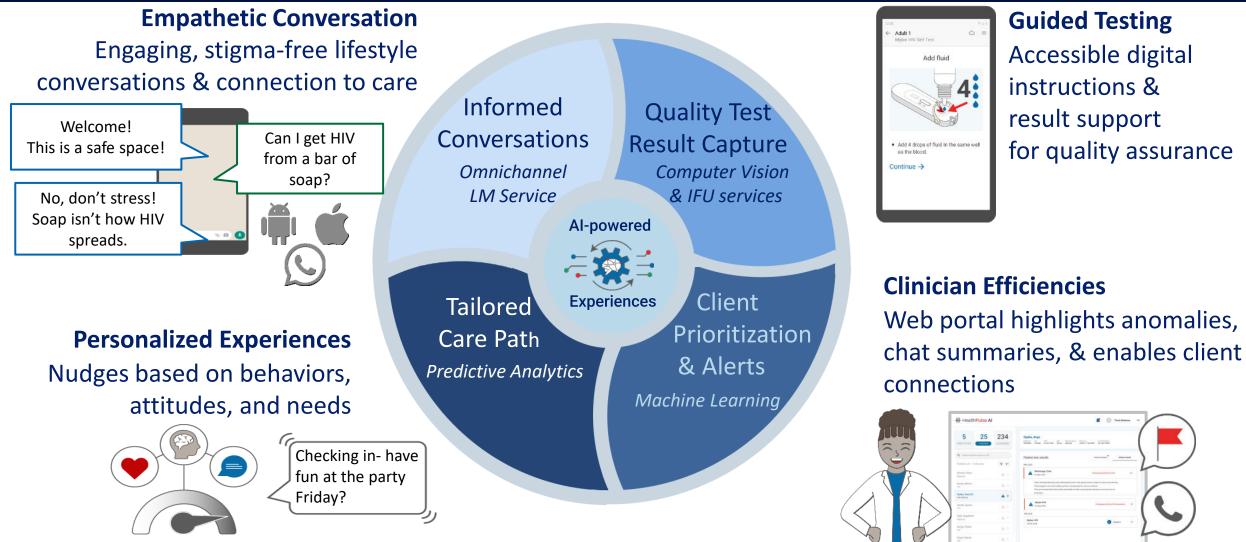
#### Self-care from anywhere

Empathetic conversations and digitally guided testing to meet people where they are, educate, encourage testing, and connect to care and services.





### HealthPulse Al Integration Toolkit Quality assured self-care from anywhere



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## Client Journey: Self-Care from Anywhere

<b>1</b> Demand Generation	2 Lifestyle conversatio	n	3 Self-Testing	4 Post-test counseling	•
		>	Particular P		•••
Population specific recruitment channels	Al companion patiently empathetically answers Q's & behaviors, attitudes, & demog to inform individual need	gathers <b>self-test</b> and raphics	on helps client access a free d assists in running & upload of result fication of test & result	-	Client Record
5 Clinician review identified result	s	Clinician outreach client Don't panic - you are not alone () Contact a counsellor 063 603 0907	to >	Clinician counseling & referral to services	clinician and Al companion to provide tailored, personalized experience for clients
Clinician reviews AI prioritized to: • AI companion chat sum • AI-driven risk score • AI-verified self-test resu	0		'	Clinician provides counseling, and discusses options for prevention or treatment services	• • • • •

next steps





# Thank You!

