



I-TECH

International
Training & Education
Center for Health



Two-way texting for quality patient care

Caryl Feldacker, PhD, University of Washington, Seattle: cfeld@uw.edu
Phiona Marongwe, MPH, Zim-TTECH, Zimbabwe: PMarongwe@zimttech.org

Acknowledgements



- International Training and Education Center for Health (I-TECH), University of Washington
- Medic Mobile
- Zim-TTECH/ZAZIC VMMC consortium, Zimbabwe
- Lighthouse Trust, Malawi
- National Institutes for Health

ART retention and data quality problems:

- ART retention is sub-optimal: ~50% by 5 years are lost to follow-up (LTFU)
- In Malawi, and elsewhere, poor data quality means that true LTFU are combined with silent transfers and ART interruptions
- The combination of poor retention and poor data quality wastes scarce resources for retention efforts.

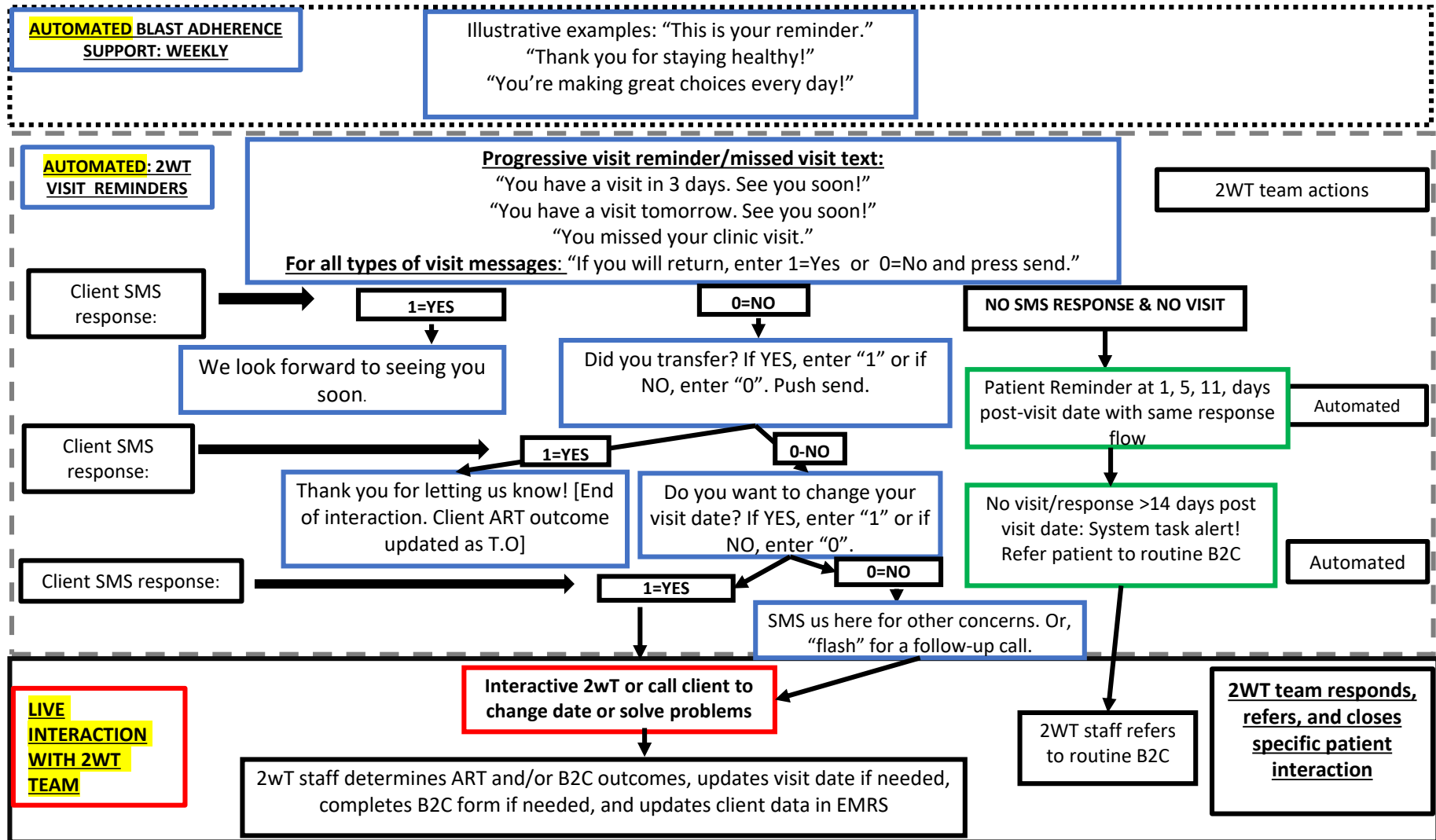
2wT Study Overview: Lighthouse Trust



- Community Health Toolkit (CHT) app for two-way texting (2wT) sends:
 - 1) Weekly motivational adherence messages (blast)
 - 2) Specific visit-date reminders (2wT); response requested
 - 3) If needed, missed visit alerts (2wT); response requested
- 2WT responses automatically record transfers
- 2wT proactively changes ART visit dates
before a visit is missed.
 - Improved outcome data + ID of true LTFU= reduced tracing workload.
- 2wT will be free for clients and open-source

2WT text flow diagram for ART retention

B2C=Back to care tracing program; EMRS=Electronic medical records system



Example 2WT messaging interface

The interface is titled "MEDIC MOBILE™" and features a navigation bar with icons for Messages (1), Tasks, Reports (2), People, and Targets. A hamburger menu is located on the right.

Message List:

- Humphreys Chiroto** 9:24 AM
Hello yes I am going to Kawale 18
MPC • Lighthouse Trust
- Banga Farai** 9:08 AM
I cannot make my visit. Can I change dates?
LH • Lighthouse Trust
- Norman Chiweshe** Yesterday
Zikomo kwambele! C U 18 Nov
MPC • Lighthouse Trust
- Peter Hatendi** Yesterday
I missed my visit. Traveling. help?
MPC • Lighthouse Trust

No more messages

Send message

Conversation Detail:

Humphreys Chiroto
+123456789
MPC clinic

Hi Humphreys. Thank you for letting us know you transferred your care. Where will you be seeking care?
Sent 9:00 AM

Hello yes I am going to Kawale 18.
Received 10:45 AM

Thank you. We wish you well in your care.
Sent 11:00 AM

Send a reply...



I-TECH

International
Training & Education
Center for Health



2wT for Voluntary Medical Male
Circumcision Follow-up

Voluntary Medical Male Circumcision



- VMMC in sub-Saharan Africa is safe and effective.
 - ~0.8% have adverse events (AEs)
 - ~99% of men heal without incident.
 - In Zimbabwe and South Africa:
 - Surgical VMMC has 3 in-person follow-ups: Days 2, 7 and 21/42
 - Most reviews for no complications
 - Severe healthcare worker shortages and few resources
- **1 million more VMMCs = 1-3 million unnecessary follow-up visits!**

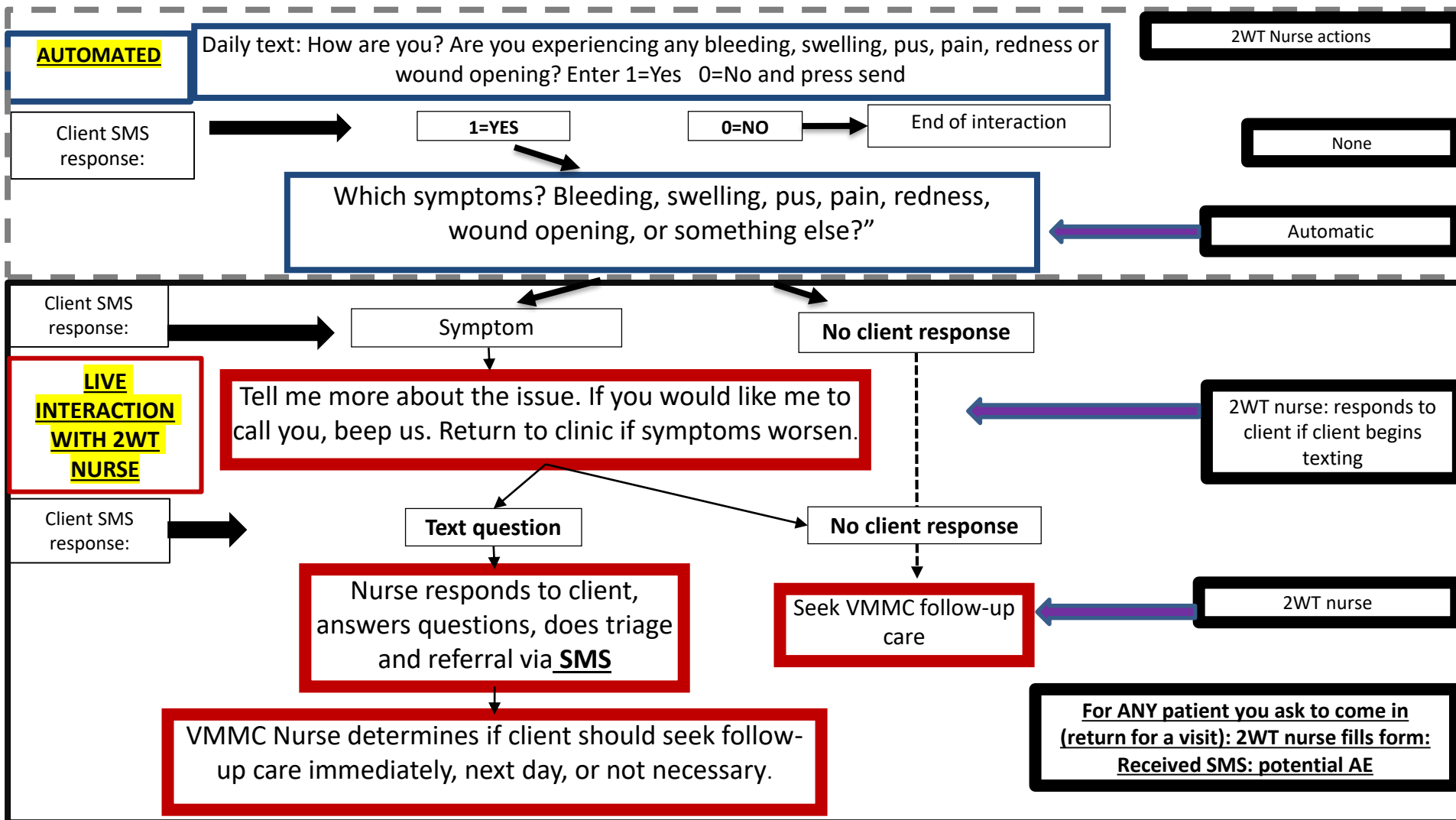


Reverse use of 2wT: 2wT reduces visits to healthcare providers while retaining patient follow-up

2wT RCT to routine care for Zimbabwe VMMC

- CHT app for 2wT supports direct provider to patient messaging instead of in-person reviews in ZAZIC routine VMMC program.
 - Client pays for SMS. Open source.
- Use 2wT to identify men who indicate a desire or need for follow-up
- Text-based, post-op VMMC care reduces unnecessary visits:
 - Benefits for client: cost and convenience
 - Benefits for healthcare workers: Perform other duties or VMMC
 - Increases men's engagement in care and self-efficacy to monitor healing independently

2wT Nurse/Patient Interaction Flow Diagram



VMMC 2wT main results



- 3 main findings:
 - 2wT was safe: AE ascertainment ***doubled*** (proxy for active surveillance) while overall AE rate $\leq 2\%$.
 - Workload reduced by 85%
 - 2wT was highly usable for clients and providers: 93% of men responded within the critical 14-day healing period
 - 2wT was cost effective: on average, 2wT-based follow-up saved \$2.1 (R35) per client over routine in-person visits
- Now scaling:
 - Zimbabwe routine care – phone and laptop
 - RSA with RCT and expansion – tablet and laptop



I-TECH

International
Training & Education
Center for Health



VMMC 2wT Demo



I-TECH

International
Training & Education
Center for Health

Thank you and questions? Contact us!

Caryl Feldacker: <https://globalhealth.washington.edu/faculty/caryl-Feldacker> ; cfeld@uw.edu

Phiona Marongwe <https://www.go2itech.org/where-we-work/zimbabwe/> ; PMarongwe@zimtech.org

For more about the Community Health Toolkit open source project, visit:
<https://communityhealthtoolkit.org>