GloCal Career Development Series

18 October 2024
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GloCal Alumnae (2022-2023)

Outline

My path to a research career

Current research: mobility and HIV

K01 application & lessons learned

Work/life balance

Early global health experiences



Neno, Malawi 2009



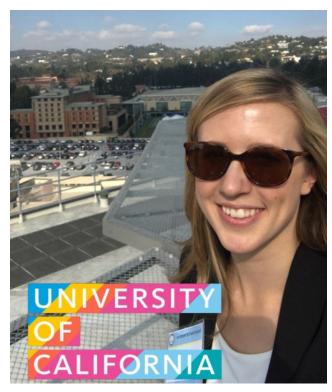
Zalewa, Malawi, 2010



Neno, Malawi, 2012



Neno, Malawi, 2013



UCLA Interview Day 2016

Residency

- R1: global health didactics, meeting GH faculty and peers
- R2: Malawi 3-week clinical rotation





- R3: Mozambique with pediatrics global health program
- R4: COVID \rightarrow research & street medicine

What next?

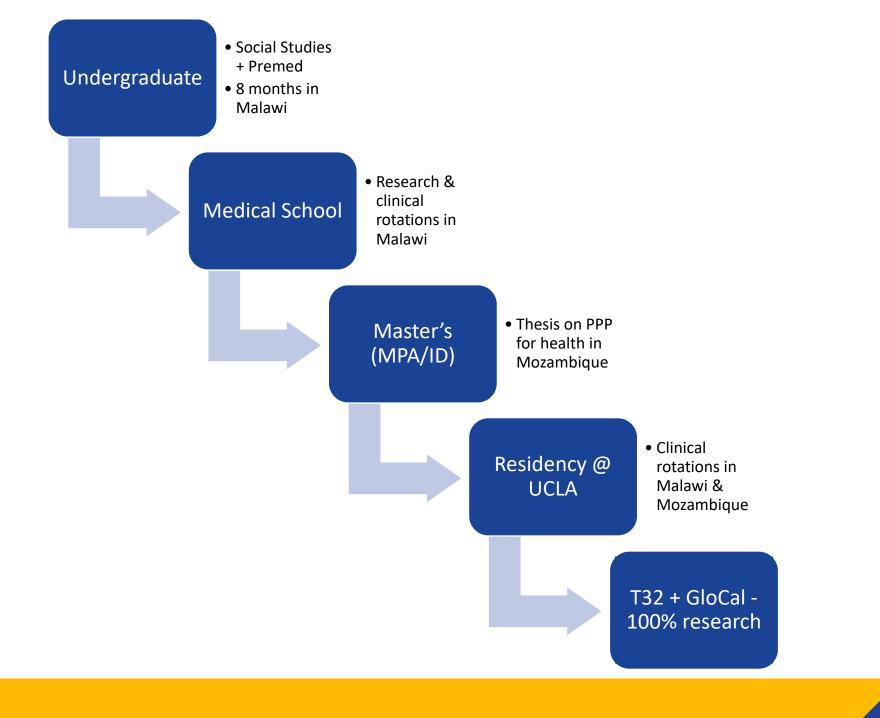
Experience in Malawi

Great research mentor

Research on mobility & HIV

Master's degree (quant skills)

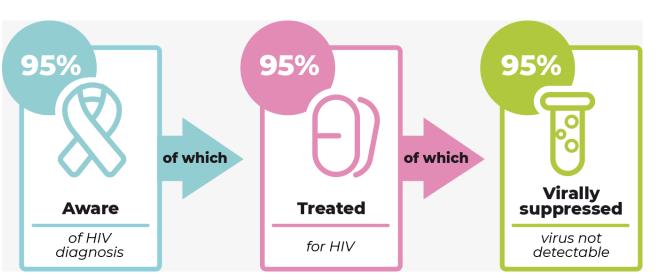
Radical beliefs on immigration

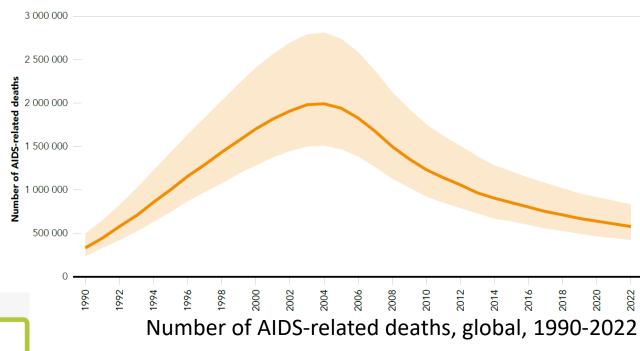


Current research: Mobility & HIV

Current research - HIV

 HIV treatment is readily available across sub-Saharan Africa (SSA) and has led to dramatic decline in death rates

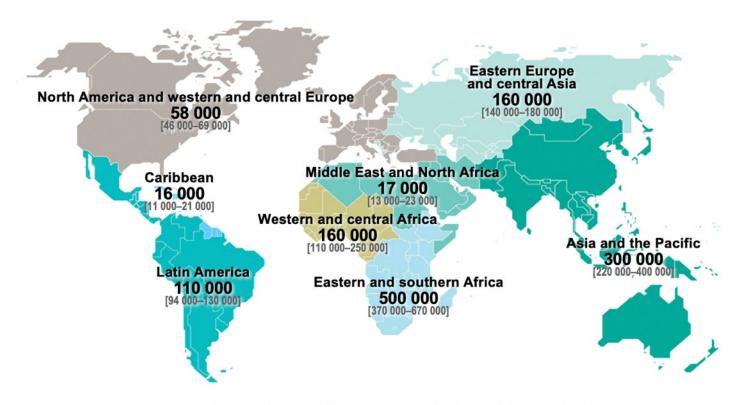




Many countries on track to reach 90-90-90, some to reach 95-95-95¹

Current research - HIV

• But new infections persist (1.3 *million* in 2022) due to gaps in the care cascade, including viral non-suppression among people on treatment²



Total: 1.3 million [1.0 million–1.7 million]

Mobility & HIV

- Outcomes are worse for "mobile" PLHIV³
 - True across treatment cascade & across SSA
 - Less likely to know status, be retained in care, and be virally suppressed

6x

Lesotho: Migrant
workers <u>6 times</u> more
likely to be lost to
follow-up after 1 year
than non-migrant peers⁴

#1

South Africa: mobility was most common reason for stopping ART⁵

2.7x

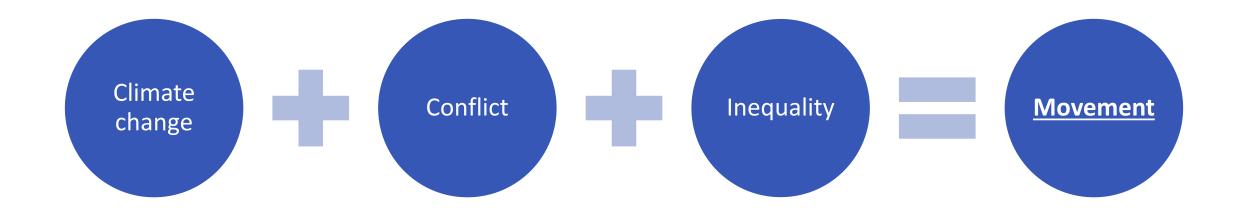
Kenya & Uganda: among men, recent in-migrants were 2.7 times more likely to lose viral suppression⁶

84% > 64%

Kenya & Uganda: Nonresidents were <u>20</u> <u>percentage points</u> less likely to be virally suppressed⁷

- "Mobility" is common but highly variable
 - Who, why, when, and where

Mobility will increase



Mobility among MLHIV in Malawi

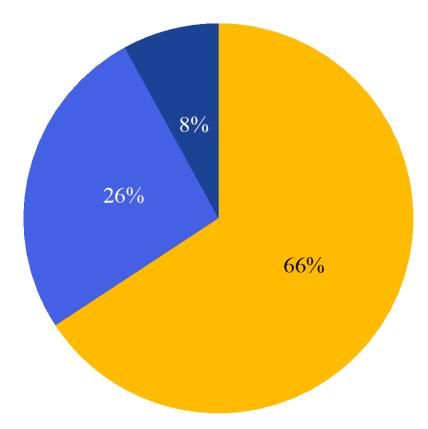
Mentor's parent trials (IDEaL & Engage)

- Eligibility:
 - Men living with HIV (MLHIV)
 - ≥15 years of age
 - Interruption in treatment (IIT) never initiated or late for refills

Key postdoc finding: mobility is common

 34% of men enrolled spent
 >14 days away from home in the past year

Men living with HIV disengaged from ART (n=651)



- Non-mobile (<14 days away)
- Mobile with at least one trip >14 days
- Mobile with no trips >14 days

Key postdoc finding: mobility is essential

- 69% of trips were for income generation
- Travel to Mozambique and Tanzania was common, usually for work

Table 2. Trips ≥ 14 nights taken by mobile men experiencing treatment interruption in Malawi (n=257)

Length of trip, median (IQR)	30 (14-90)
Reasons for travel, n (%)	
Income generation	177 (69%)
Planned obligation	12 (5%)
Unplanned obligation	39 (15%)
Social visits	20 (8%)
School	5 (2%)
Other	4 (2%)
Trip destination, n (%)	
Within home district	69 (27%)
Within home region (outside district)	68 (26%)
Outside home region (within Malawi)	38 (15%)
Outside Malawi	82 (32%)
Travel companion, n (%)	
Family	32 (16%)
Colleagues	56 (22%)
Friends	33 (13%)
None (travelled alone)	126 (49%)

	Incomegenerating trips	Non-income generating trips
Trip destination, n (%)		•
Within home district	37 (21%)	32 (40%)
Within home region (outside district)	47 (26%)	21 (26%)
Outside home region (within Malawi)	28 (16%)	10 (13%)
Outside Malawi	65 (37%)	17 (21%)

Key postdoc finding: mobility and ART conflict

- Men bring medications on trips...
- But they frequently run out and miss appointments while away.



High-risk mobility

Table 2: Association of mobility and repeat TI among MLHIV in IDEaL/ENGAGE trials in Malawi (n=1123)

	Odds Ratio (OR)	Adjusted Odds Ratio (aOR)	Area under curve (AUC; adjusted model) †
Mobility during trial - quantitative			
≥3 nights	1.6 (1.20-2.07) ***	1.55 (1.17-2.05) ***	0.617
≥14 nights	1.62 (1.17-2.26) ***	1.59 (1.14-2.22) ***	0.613
≥30 nights	2.6 (1.64-4.06) ***	2.55 (1.61-4.04) ***	0.626
≥90 nights	3.6 (1.66-7.59) ***	3.62 (1.67-7.86) ***	0.618
Mobility during trial - other characteristics			
Ever traveled outside Malawi	1.9 (1.15-3.15) **	1.89 (1.13-3.17) **	0.613
Any unplanned travel (≤2 days notice)	2.1 (1.44-3.10) ***	2.18 (1.47-3.22) ***	0.620
Ever away longer than expected	2.5 (1.61-3.79) ***	2.40 (1.55-3.73) ***	0.628
Ever traveled for income generation	1.5 (1.08-2.04) **	1.38 (0.99-1.91)	0.610
Ever traveled for funeral	2 (1.10-3.47) **	2.15 (1.19-3.88) **	0.609

"High-risk mobility":

- Any trip >30 nightsAny trip lasting
- Any trip lasting longer than expected

Green = selected for high-risk mobility definition

^{**} p<0.05; *** p<0.01; † Adjusted for sociodemographic characteristics including age >40, married, top wealth quintile, owning a productive asset, and hazardous alcohol usage

Mobility & IIT

Rates of repeat IIT

39% → 59%

No high-risk mobility With high-risk mobility

When controlling for other factors associated with repeat IIT, men who experienced high-risk mobility had more than twice the odds of repeat IIT (aOR 2.18, 95%CI 1.5-3.1).

Predicting IIT

<u>Identifying Risk of Treatment Interruption (IRTI)</u>

- Prospective cohort
 - n=924
 - Men and women (~45%/55%)
 - Newly initiating & re-initiating ART clients
 - Re-initiating: returning >28 days after missed appointment
 - Baseline survey: sociodemographics, mobility, livelihoods, depression, alcohol
- Completed enrollment April 2024
- Chart review follow-up planned starting November 2024
 - Primary outcome: 6-month retention (<28 days late to all appointments)
 - Tracing participants at home for confirmation & additional survey (1:1 IIT:control)

Next steps: K01 intervention pilot

Reducing Mobility-Associated Interruption in Treatment (ReMIT)

ReMIT intervention pilot

Facility randomization (n=6 facilities)

Screening of all initiating and re-initiating clients for past or planned mobility

Recruit and consent

(n=120 mobile MLHIV [re-]initiating ART)

INTERVENTION

• Enhanced MMD: increased uptake for

CONTROL

clients experiencing/at risk of TI

 Mobility hotline: coordination of pretravel or emergency refills + counseling

 Mobility-specific counseling: strategies to stay in care while mobile Standard of care

Recruit and consent

(n=120 mobile MLHIV [re-]initiating ART)

Strategies to support implementation:

HCW sensitization +monitoring/evaluation

Outcomes

Primary effectiveness: retention in care at 6 months
Secondary effectiveness: treatment interruption, ART coverage, viral suppression
Feasibility and acceptability (for refinement prior to definitive trial)

Lessons from K01 application process

Pre-application: find your home

• FIRST STEP: who will write your institutional support letter? What do they need from you to write it?

Not always a transparent process

"Soft money"

Pre-application: identify mentors











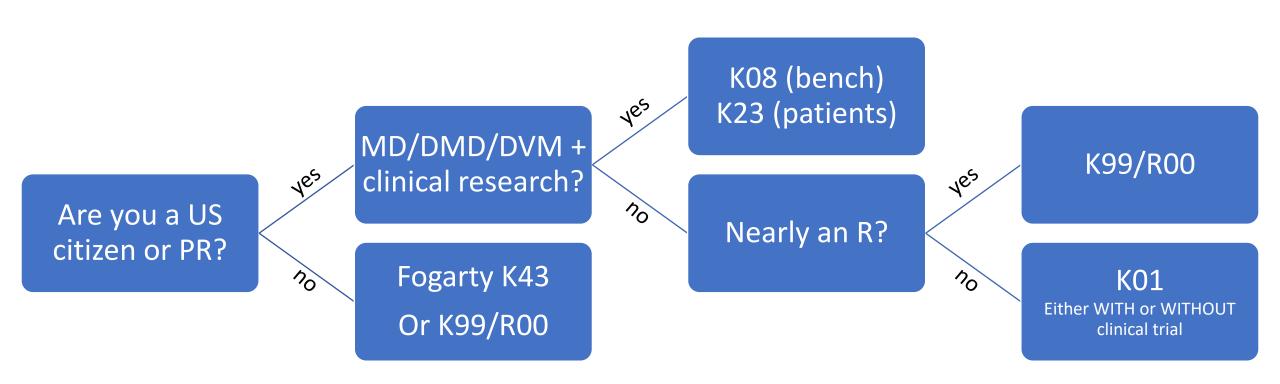


Tom Coates, PhD

Kathryn Dovel, PhD, MPH Sam Phiri, MSc, PhD Risa Hoffman, MD, MPH Carol Camlin, PhD, MPH Chi-Hong Tseng, PhD

- GloCal mentors are a great place to start!
 - But you'll likely need more
- Some will be VERY involved with application, others less
- Strong, conflicting opinions are OK
 - But be ready to refuse some advice
- Need one with many previous K mentees
 - Yes, it's often a white, American man... for now

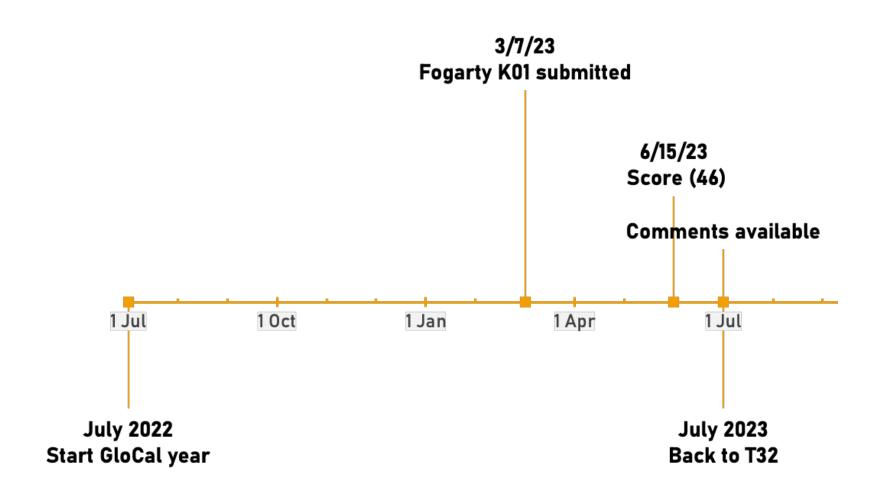
Choose your K



My K01

- Research plan:
 - Aim 1: intervention refinement with providers, clients and community advisory board
 - Aim 2: intervention pilot

- Training plan:
 - Health system interventions
 - Trial design and analysis (biostatistics)
 - Mobile populations
 - Ethics & decolonizing global health



First submission to Fogarty in March 2023 (end of GloCal year)

- Jun-Oct 2022: conceptualizing
- Nov/Dec: outlining and meetings with mentors
- Jan/Feb: drafting in earnest
- March 7: submitted
- June: scored (46)
- Mid-July: comments available

Lesson:

It's OK if Aim 1 is exploratory, but don't leave it TOO open-ended

Lesson:

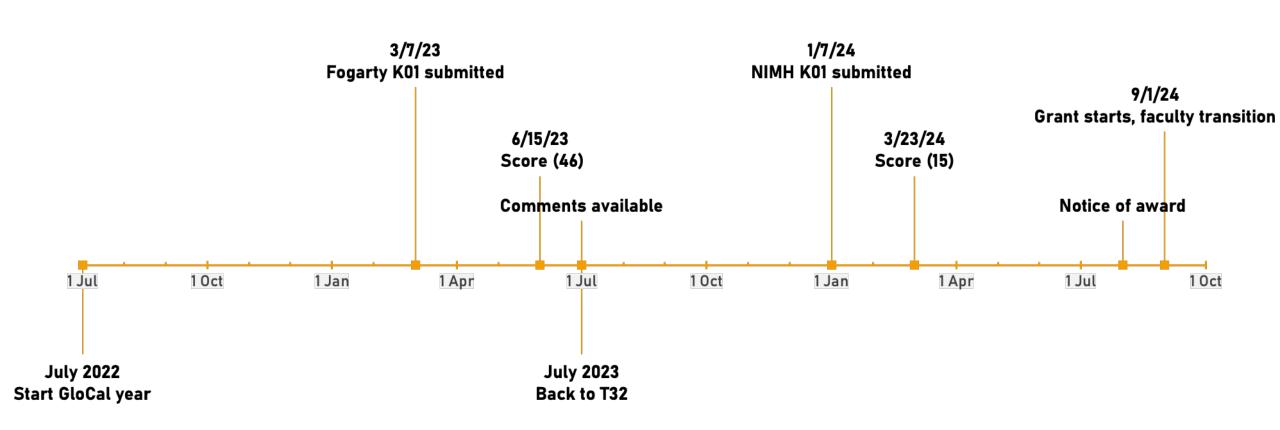
It doesn't *have* to take up all your time, but it will

Second submission to NIMH Jan 2024

- Aug/Sept: tried major revision, mentors rejected
- Oct/Nov: back to original + targeted revisions
- Dec: revised other docs
- January 7: submitted
- March 23: scored (15 = definitely funded)
- August: Notice of Award

Lesson: The strongest mentors have strong opinions

Lesson:
Round 2 is *so* much more pleasant than Round 1



Post-score, pre-award

- Lots of work! Some by you, some by your university officials
- "Just in Time" info (outside funding, admin details)
- Human subjects/IRB application and approval
- Score of 15 → 5 months until \$
 - Borderline scores (20s/30s) may get funded at the end of the fiscal year so prepare for a long wait (and lots of contact with your program officer)

Research partnerships



Partners in Hope, Lilongwe, Malawi



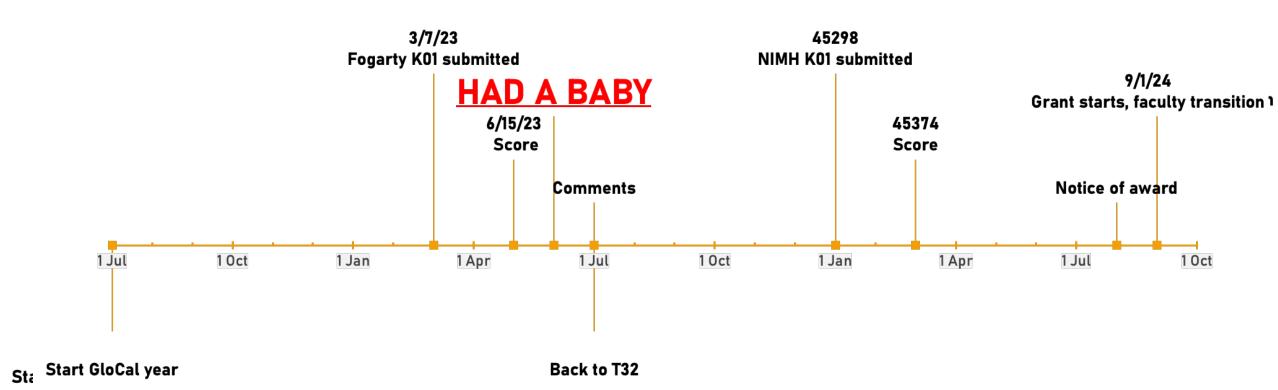
Impact Research & Development Organization (IRDO) & Kenya Medical Research Institute (KEMRI), Kisumu, Kenya

Work/life balance – multiple sites



Travel

- Pre-baby: 2-3 weeks every 2 months
- Post-baby: 1 week every 3 months
- Working well remotely
 - Over-communicating
 - Smothering with love
 - Do your homework



Work/life balance – it takes a village







Thank you! Zikomo! Asante!







Please feel free to email me with any and all questions, comments, or potential collaborations! Mentoring trainees is one my favorite parts of this career, and I am eager to work on new projects in new settings – so I would love to hear from you. mthorp@mednet.ucla.edu