

# Evaluation of a specialized psychosocial support intervention “Teen Club” in improving retention among adolescents on antiretroviral treatment (ART) at a tertiary referral hospital in Malawi

M. Agarwal<sup>1,2</sup>, M. Van Lettow<sup>1,3</sup>, J. Berman<sup>1</sup>, C. Gondwe<sup>1</sup>, E. Mwinjiwa<sup>1</sup> and A.K. Chan<sup>1,3,4</sup>

7<sup>th</sup> IAS Conference on HIV Pathogenesis Treatment and Prevention  
July 2013, Kuala Lumpur, Malaysia

<sup>1</sup> Dignitas International, Zomba, Malawi

<sup>2</sup> Columbia University Mailman School of Public Health, Department of Epidemiology, New York, United States

<sup>3</sup> Dalla Lana School of Public Health, University of Toronto, Canada

<sup>4</sup> Div. of Infectious Diseases, Dept. of Medicine, U. of Toronto, Canada



DIGNITAS

# Disclosure/Conflicts of Interest

- The authors of the paper declare no bias or conflict of interest
- All photos used with permission



# Global Context: HIV+ Adolescents

- **4.9 million young people (15-24) living with HIV 2011**
  - 75% in sub-Saharan Africa
- **Young people account for 40% of new infections in adults (>15+)**
- **Challenges for HIV+ Adolescents**
  - Changing physiological and psychological maturity
  - Developing sexual identity
  - Managing livelihood security in addition to health
  - Stigmatizing attitudes from peers and community leads to isolation

# Malawi Context: HIV+ Adolescents



Community Health Workers doing health promotion at a secondary school in Zomba District, SE Zone, Malawi

## NATIONAL ART PROGRAM

- Began in 2004
- HIV seroprevalence currently 12%
- Over 500,000 ever initiated on ART
- Population: 15 million

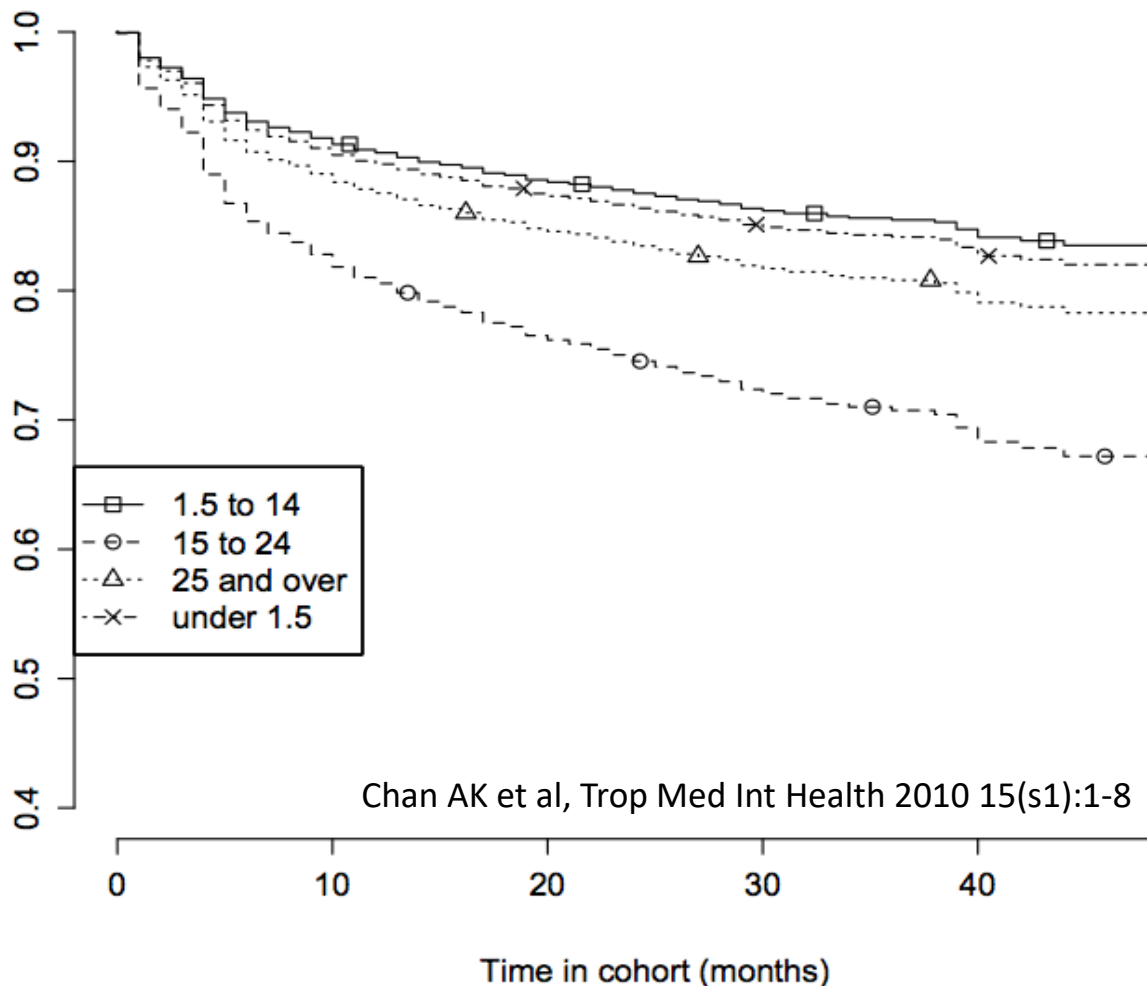
## ZOMBA CENTRAL HOSPITAL

- Referral hospital for SE Zone (population 3.1 million)
- 20,000 initiated on ART (10% pediatric)



DIGNITAS

# Malawi Context: LTFU from ART at Tisungane Clinic



*The highest risk age group for LTFU were young adults between the ages of 15-24*



DIGNITAS



# Intervention: Teen Club



3 younger teens doing an art activity during Teen Club group time; activities are separated by age (young vs. older teens)

- A streamlined adaptation of the Baylor Malawi Teen Club Model for a Ministry of Health run clinic
- Conducted every 4 weeks on a Saturday
  - Address absenteeism
- Designated a staff leader (non-physician led) trained in the BIPAI Malawi Teen Club curriculum and for mentorship by BIPAI team

# Intervention: Process



The First Tisungane Teen Club (March 2010); older teens making mobiles as an arts project; the gentleman on the right was making it for his girlfriend

- Teens are separated into smaller groups based on age
- Every teen attends the adherence activity
- During crafts, sports, they are pulled aside to be seen by clinicians to collect their medications



# Intervention: Curricula

- ***Teen2Teen Peer Support in a Positive Social Space:*** the normalization of the HIV+ teen experience through games, sports, art, music, dance, social media
- ***Positive living and life skills training curricula:*** addresses rights, support systems, conflict resolution, disclosure and effective communication
- ***Adherence sessions and treatment preparedness:*** Use of role play, discussion, games, group problem solving and strategizing
- ***Sexual and Reproductive Health:*** puberty, relationships, romantic relationships, SRH basics, positive prevention





# Intervention: Eligibility

- HIV+ adolescents
- HIV status disclosed and accepted
- Should be on ART



Making bracelets during group time

# Overall Objective and Study Aim



Positive space for positive peer interactions: sports and music equipment provided for peer groups to break off for socialization during opening large group activities

To determine the retention in care, and treatment outcomes of adolescents who attend Teen Club and adolescents who do not attend Teen Club



DIGNITAS

# Methods

## **A retrospective cohort study comparing baseline demographics and outcomes of adolescents attending teen club vs. those that did not**

- MoH ART registers and master-cards were reviewed from clinic inception to end of data collection (October 2004 until June 2012)
- Teen Club was implemented April 2010
- Data was extracted from electronic medical records for all patients



# Methods

**Exposure:** Participation in Teen club

**Outcome:** Retention on ART treatment

Loss to follow up = missed 2 or more clinic visits i.e. >60 days from expected date of follow up

**Covariates of interest:** Age, sex, distance from hospital, reason for initiation, change in clinical status

**Analysis:** Multivariate models using Kaplan Meier survival rates & Cox proportional hazard ratios



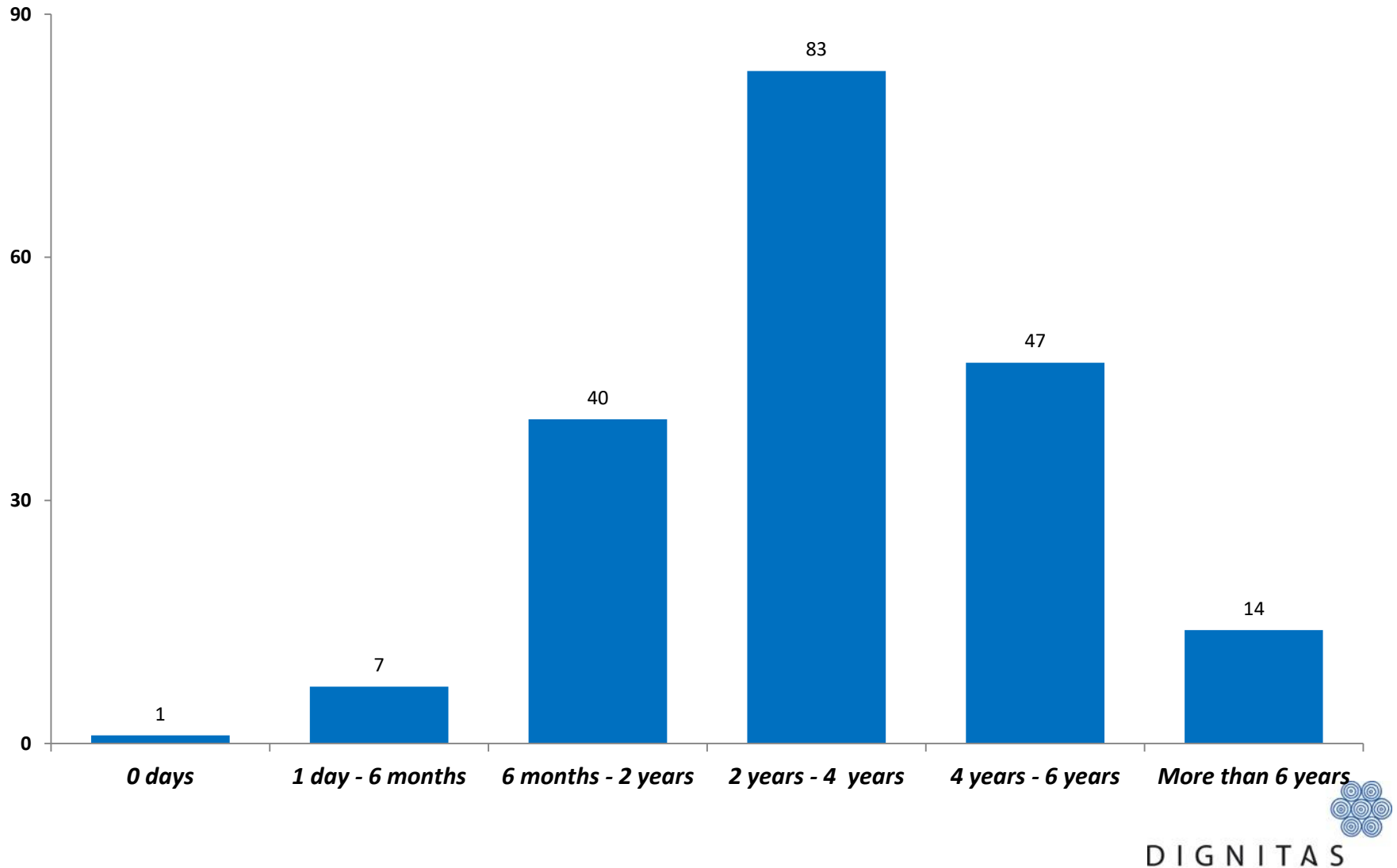
# Demographics of Teen Club adolescents versus non-Teen Club adolescents

Patient Characteristics	Teen Club	Non-Teen Club
	n = 192	n = 750
Age in years, median (IQR)	12.4 (4.4)	19.8 (8.6)
Sex, female (%)	94 (48.9%)	191 (25.4%)
Location, urban (%)	150 (78.1%)	413 (55.1%)
Reason for ART initiation, n (%)		
CD4 count <350	56 (29.2%)	207 (27.6%)
Pregnant	0 (0%)	55 (7.3%)
WHO Stage 3	107 (55.7%)	284 (37.9%)
WHO Stage 4	23 (11.9%)	117 (15.6%)
Missing	6 (3.1%)	87 (11.6%)
Weight gain, median (IQR)	44% (54.5%)	7.7% (26.8%)

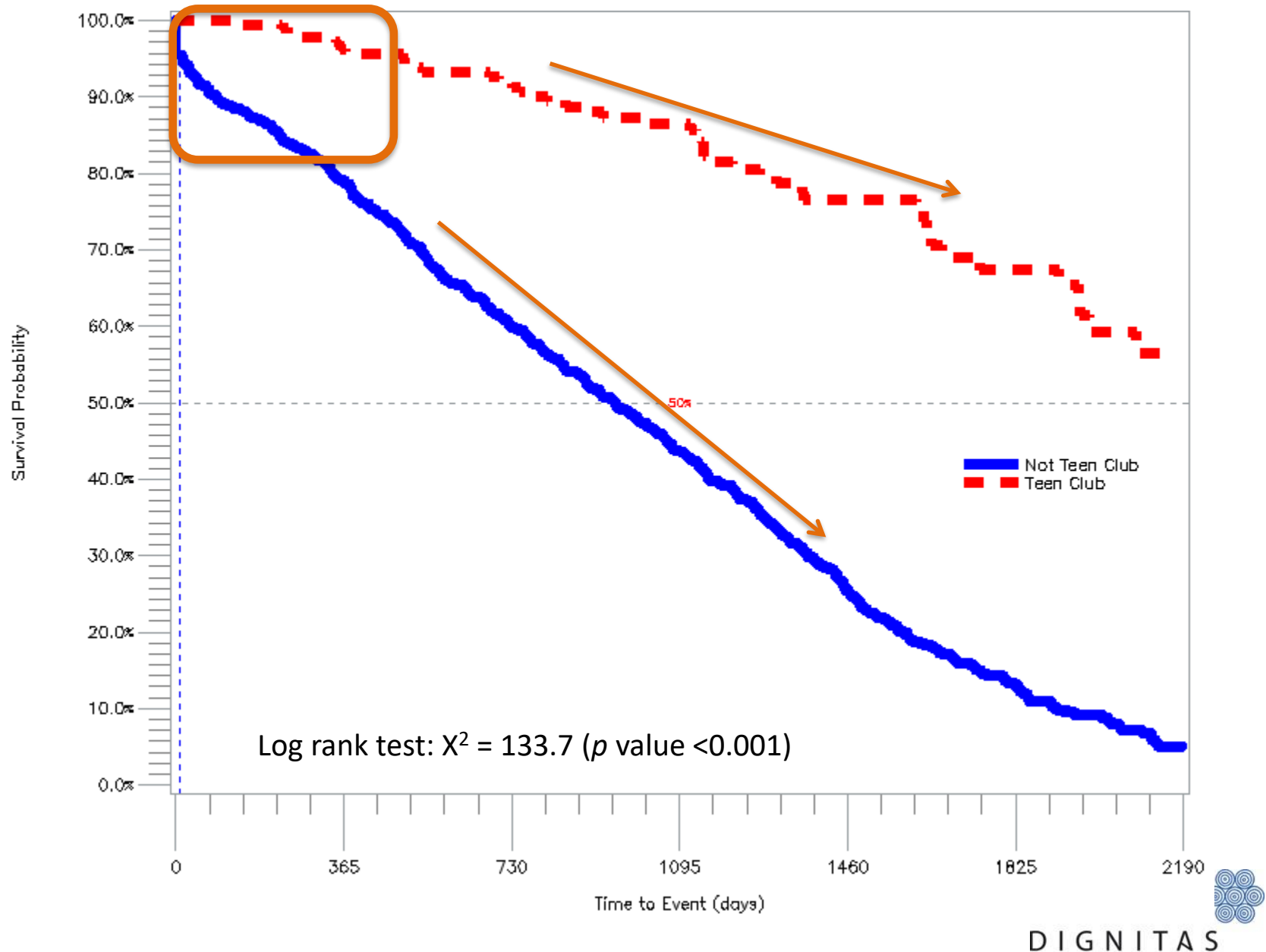




# Number of clients starting Teen Club by time from initiation of ART to first Teen Club visit



# Retention on ART (up to 6 years after ART initiation)



# Hazard ratios of LTFU comparing non-teen club vs. teen club adolescents

Crude HR	95% CL	Adjusted HR*	95% CL
4.91	3.68-6.56	3.07	2.04-4.59

\*Adjusted for age, sex, urban/rural, days on ART before first Teen Club visit, weight change

# Limitations

- Self-selection of adolescents into teen club
- Lack of data on number of referrals to Teen Club and reasons for not joining
- Use of programmatic data not intended for research purposes
- Cross-sectional study design



# Conclusions & Future Direction

- Teen club is an effective method in improving retention among adolescents
- National AIDS Commission planning to support Dignitas and Baylor COM Children's Foundation Malawi to expand Teen Clinic to all district hospitals (secondary referral centers) in the South East Zone



Tisungane Teen Club  
Small Group Sessions  
on Nutrition and Food  
Choices



# Acknowledgements



**USAID**  
FROM THE AMERICAN PEOPLE



- This ZCH Teen Club is funded by USAID-Malawi and Dignitas International
- M. Agarwal was funded as a Global Health Corps Fellow
- Tisungane Clinic, Staff and Patients
  - Edson Mwinjiwa, Chrissie Gondwe, Edith Thaulo, Harriet Akello, Yusuf Bhamu, Harvey Mafuta, Beatrice Malonje, Lucy Banda, Joseph Kaphuka, Alice Kadzanja, Brave Nyirenda
- Baylor College of Medicine Children's Center of Excellence Malawi
  - Dr. Peter Kazembe
  - Linda Malilo, Symon Mtambo
  - BIPAI PAC Malawi Physicians: Chris Buck, Kevin Clarke, Carrie Cox, Carrie Golitko, Michele Kautzman, Janell Routh
- Dignitas International
  - Data: Alfred Matengeni, Jean Bourgeois
  - Research: Monique van Lettow, Joshua Berman
  - Medical Programs: Teferi Beyene, Belete Assefa, Adrienne K. Chan



DIGNITAS

# Questions?



Tisungane Clinic Staff and Expert Patients



DIGNITAS