

# Behavioral Research in the Microbicide Trials Network

HANC Behavioral Sciences Working Group Symposium

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**Ariane van der Straten, PhD, MPH**

*Member, MTN Behavioral Research Working Group*

*Senior Research Scientist, RTI International*

*Director, Women's Global Health Imperative (WGHI)*



# Behavioral Research Working Group (BRWG)

## Scope of Work

- Serve on 25 of 28 protocol teams
- Assess product adherence and acceptability
  - Secondary objectives in phases I-III trials
  - Primary objectives in ancillary studies (035b, VOICE-C, VOICE-D)
- Assess feasibility
  - Primary or secondary objectives in pilot studies (Wisebag) or I-II trials (017)
  - Exploratory objective in OLE study (025)
- Describe ways in which participant behaviors affect trial outcomes
  - Sexual and other risk behaviors
  - Vaginal and rectal practices
- Test new methodologies to measure and understand sexual behavior and product adherence:
  - Pictorial ACASI (035b), Video interviewing (004; 024)
  - Integrated quantitative and qualitative methods (020, 017)
  - Electronic or drug monitoring, SMS, data convergence interviews

# BRWG Members

4 CORE MEMBERS	OTHER ATTENDEES AT MEETINGS:
Alex Carballo-Diequez (2006) Columbia University PhD, Clinical Psychology	Cynthia Grossman NIMH, Division of AIDS Research PhD, Clinical Psychology
Pamina Gorbach (2006, Chair 2006-8) UCLA DrPH, Public Health	Kristine Torjesen MTN Operations, FHI/360 MD
Barbara Mensch (2007, Chair 2011-) Population Council PhD, Sociology & Demography	Sharon Hillier MTN Core, Univ. of Pittsburgh Medical School PhD
Ariane van der Straten (2008) RTI PhD, MPH, Genetics, Public Health	
2 NEW MEMBERS	
Kenneth Ngunjiri Jomo Kenyatta University PhD, MPH, Public Health	
Jose Bauermeister University of Michigan PhD, MPH, Public Health	

# Behavioral Protocols

- **035B** (2008) - New Approaches to Measuring Adherence of Microbicide Use: Assessing the Feasibility of ACASI in a Microbicide Clinical Trial (Gorbach PM, AIBE, 2013)
- **003C** (2010-2012) - Household and Community Level Factors Associated with Study Product Adherence in VOICE (van der Straten, PLOS ONE 2014)
- **003D** (2012-2014) - An Exploratory Study of Potential Sources of Efficacy Dilution in VOICE Trial (*analysis ongoing*)
- **P01** (2011-2012) - Wisebag Observational Pilot Study: Feasibility, Acceptability and Performance of an Electronic Event-based Monitoring System (van der Straten, AIBE 2013)
- **RTI/Albert Einstein/Pop Council/MTN** (2011-2012) - Evaluation of Methods for Assessing Vaginal Microbicide Adherence: Dye Stain Assay, UV-Light and Wisebag (van der Straten, STD 2013)

# **CURRENT PROTOCOLS WITH SIGNIFICANT BEHAVIORAL COMPONENTS**

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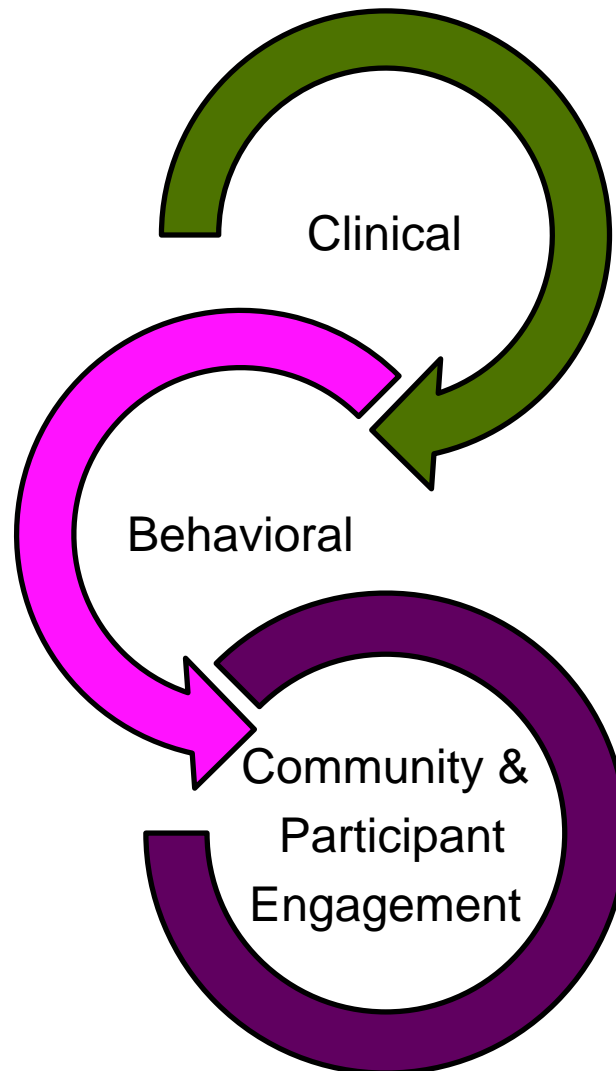
# MTN-020 (ASPIRE) Phase III trial of dapivirine ring

- 15 sites, randomized double-blind, placebo-controlled trial
- Malawi, RSA, Uganda, Zimbabwe
- N= 2520 enrolled as of 5/2014
- New ring inserted every 4 weeks
- $\geq 12$  months of ring use
- Monitoring use: visual inspection of used rings & drug levels (blinded)
- Integrated qualitative component
- 3/2013: adherence workshop + start of participants engagement activities: site initiated & focused



# Integrated Approach....

- Within sites
- Across sites
- At operations management & leadership levels



# Ongoing BRWG Involvement in ASPIRE Trial Implementation

- Behavioral assessments (pictorial ACASI, CRFs)
- Monthly Adherence Working Group (AWG)
  - Review reports of frequency and reasons for ring removals and nonuse; qualitative findings/themes, etc.
- Participant engagement activities
- Qualitative component
- Added measures to study Exit CRF
  - Added social matrix questions based on evidence from VOICE re: importance of social influences, particularly fellow participants
  - Motivations for joining, intentions to join future ring studies



# Qualitative Component

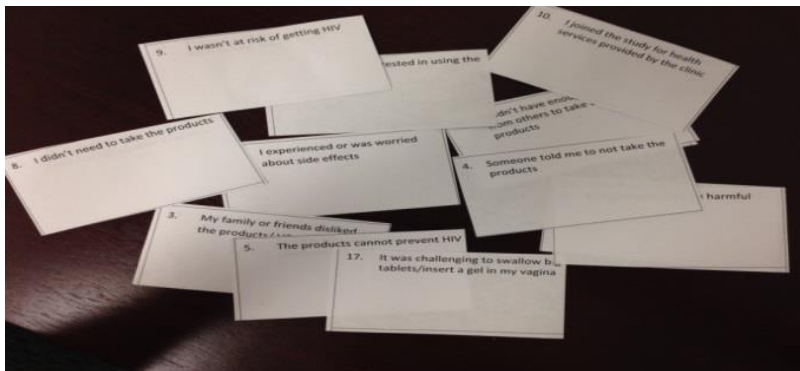
- 88/210 participants enrolled at 6 “qualitative” sites
- Multiple data collection methods:
  - Serial IDIs: Participants randomly selected at each site
    - Month 3, Month 12 and/or PUEV
  - Special cases purposively selected by site & approved by management team
  - Single IDIs: Premature product discontinuation (e.g. seroconversions, early terminations)
  - Exit FGDs (~2 groups per site)
- Integration with main trial/across sites
  - Debriefing reports circulated to management team
  - Themes discussed at: site clinic staff meetings; AWG calls; qualitative calls; protocol meetings

# Participant Engagement

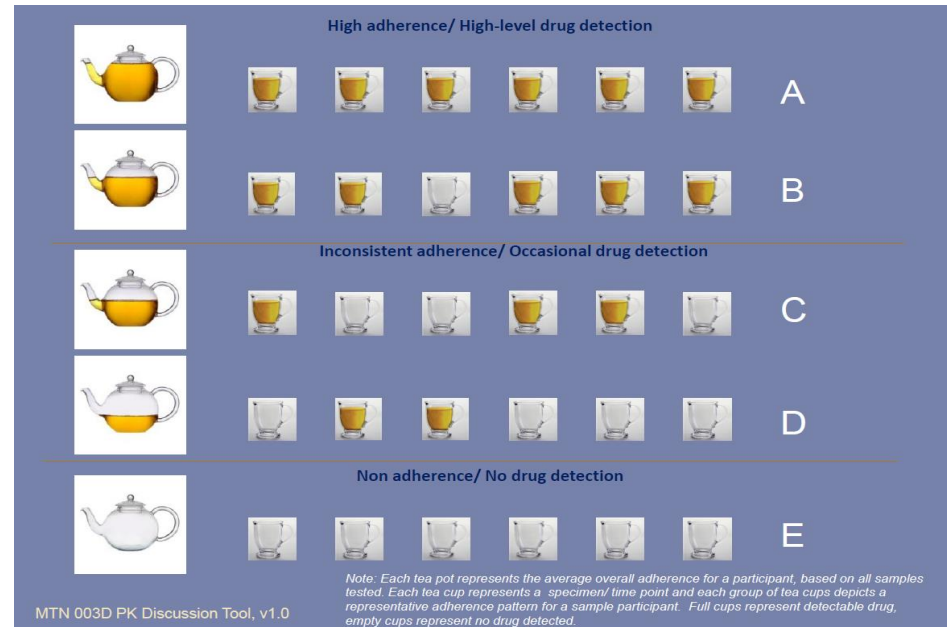
- Engagement events strive to:
  - decrease social distance between participants and staff
  - build motivation for adherence and retention
  - reduce trial fatigue for both participants and staff
  - create sense of commitment and ownership over the trial
  
- Event types:
  - small group discussions with participants
  - social
  - male partner meetings
  - couples
  - milestone (retention)
  - holiday
  
- Events conducted and documented:
  - 199 events conducted across 15 sites: 3/ 2013 to 4/2014
  - summaries and participant attendance logs collected from all sites quarterly

# MTN 003D – An exploratory qualitative study of potential sources of efficacy dilution in the VOICE trial

- **Stage 1** (10/12-03/13)– to explore potential factors contributing to efficacy dilution after early closure of oral and vaginal tenofovir arms in VOICE (N=88)
- **Stage 2** (11/13-04/14) – to explore factors influencing adherence in greater depth, including HIV risk perception & motivation – includes disclosure of drug PK results to participants (N=131)



See poster presentation #267



# MTN 017- Phase II Randomized Expanded Safety & Acceptability Study of Rectally-Applied Reduced-Glycerin (RG) Formulation Tenofovir 1% Gel and Oral Truvada

- Multisite: USA, Thailand, South Africa and Peru
- Randomized open label six-sequence,
- Crossover study: three 8-week periods
- Three regimens:
  1. Daily oral Truvada
  2. Daily Tenofovir RG1% gel
  3. RAI-associated Tenofovir RG 1% gel
- Sexually active HIV(-) males or transgender females,  $\geq 18$  years w/ history of receptive anal intercourse (RAI) in prior 3 months
- Study regimens compared for safety, acceptability, systemic and local absorption and adherence



# MTN 017 Behavioral Objectives and Measures

## □ Acceptability

- Investigate associations between # of tablets and applicators used during 8-week cycles and acceptability, demographic, and background factors
- Acceptability = participant self-report of ease of use, liking product, likelihood of use if shown effective; (*baseline and follow-up behavioral questionnaires [CASI], in-depth phone interview*)

## □ Adherence

- Identify factors associated with product adherence and whether they differ by product used or regimen
- Adherence = percentage of doses taken orally or administered rectally in an 8-week period; (*follow-up behavioral questionnaire, SMS question, applicator and pill counts, PK test results, data convergence interview, in depth phone interview*)

# MTN 017 Data Convergence

- Adherence data collected via:
  - Product return counts
  - Daily SMS
  - PK test results (provided 5 times)
- Discrepancies between measures may occur
- Data convergence and PK data interviews allow for clarification of discrepancies and confirmation of correct number of doses taken
- Behavioral team will review each data convergence interview and PK data convergence CRF and estimate adherence to product use

# US-based Ring Trials: 013, 023, 024

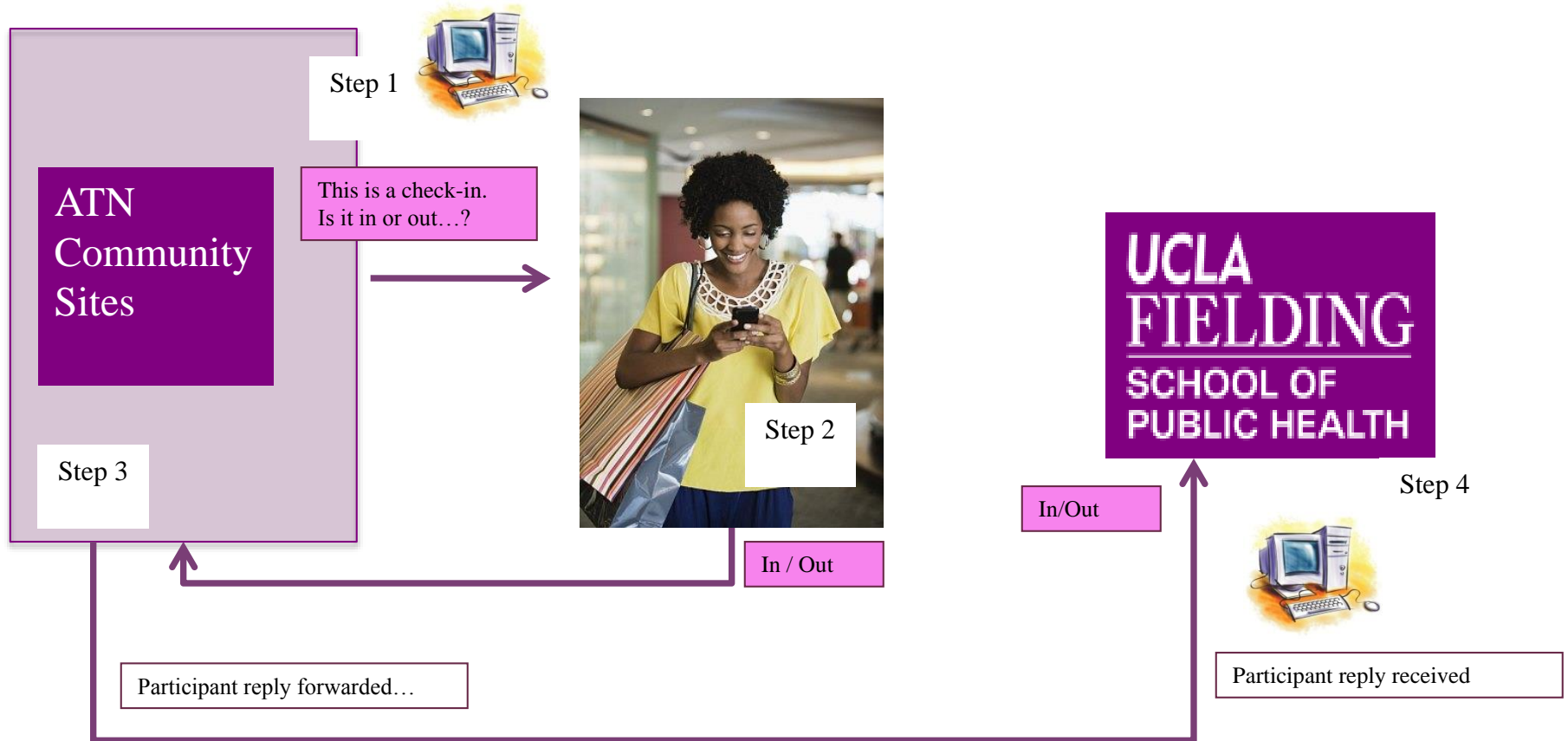
- 013: 4-weeks ring use among sexually abstinent women – PK/safety  
first multidrug ring trial (Dapivirine, Maraviroc), CASI, CRFs and exit semi-structured interviews
- 024: 3-months ring use in menopausal women – CASI, CRFs, exit Video interviewing (IDI)

# Phase 2a Safety Study of Vaginal Ring in Adolescent Females (MTN-023)

- Cross-network collaboration
- Done in collaboration with ATN – behavioral investigator (Greg Zimet) member of team and 3 of 4 sites are ATN sites
- Baseline & quarterly visit – ACASI Behavioral Questionnaires
- SMS Check-in
  - Adherence assessment
  - Support
- Qualitative Interviews at exit



# SMS Process - MTN 023



# Qualitative Interviews – MTN 023

- Measure and explore factors that affect adherence
  - Social/partner networks
  - Intercourse experience
  - Partner response to ring use
  - Removal timing
  - Expulsion occurrence
  - Vaginal hygiene
  - Condom use behavior
  - Menstruation issues and practices
- Examine Study SMS & ACASI Survey issues
  - Privacy concerns, ease of use, adherence support, feasibility
- Video interviewing Conducted by GoToMeeting

# MTN 015 Behavioral Assessments

## □ Behavioral Objectives

To describe post-conversion changes in sexual behaviors and partnership status of women who seroconvert during participation in microbicide trials

## □ Behavioral Evaluations

- Baseline behavioral questionnaire
- Follow-up behavioral questionnaire
  - 3, 12, 24 months post-conversion or post-initiation ART
- Antiretroviral therapy adherence
- Social Harms Assessment
- Disclosure of HIV status
- Depression

# Depression Analyses

1. Evaluate the utility of a depression scale to assess the presence of depression among recently infected women in five African countries
2. Describe the prevalence of depression symptoms among recently infected women
3. Identify factors associated with depression among recently infected women

# MTN-015: Depression

- Depression and anxiety were modeled off of the Hopkins Symptom Checklist (HSCCL-25)
  - 10-item index of anxiety and a 15-item index for depression
- Validation studies of HSCCL-25 conducted by Kaaya et al. determined that a subset of 8 of the questions, along with adjusting the “caseness” cutoff score to 1.06 or greater, yielded highly sensitive and specific results in identifying anxiety and depression
- Thus, MTN-015 used the 8-item index to identify anxiety and depression

# Acknowledgements

BRWG team members

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