SHORT-TERM CASH AND FOOD ASSISTANCE

Good Evidence – Medication Adherence
Evidence-Based Structural Intervention
Evidence-Based for Retention in Care

INTERVENTION DESCRIPTION

Goals of Intervention
- Improve ART adherence
- Improve retention in HIV care

Target Population
- People living with HIV (PLHIV) who are food insecure and recently initiated antiretroviral treatment (ART)

Brief Description
Short-Term Cash and Food Assistance is an intervention that provides short-term food or cash assistance for food insecure PLHIV in Tanzania who recently initiated ART. Participants receive nutrition assessment and counseling (NAC), plus the opportunity to receive a monthly cash transfer or food basket for up to 6 consecutive months, conditional on attending monthly scheduled visits with the HIV care provider. Cash transfers are valued at 22,500 Tanzanian Shillings (approximately $11 USD dollars, $66 maximum during intervention period) and are transferred via mobile money services or are given to participants directly if they have no access to a mobile phone. Food baskets are also valued at approximately $11, and included whole maize meal, groundnuts, and beans.

Theoretical Basis
None reported

Intervention Duration
- Receipt of monthly cash transfers or food baskets for up to 6 consecutive months

Intervention Setting
- HIV primary care facilities (two hospitals and one peri-urban clinic)

Deliverer
- HIV care provider

Delivery Methods
- Cash and food incentives

Structural Components
- Social Determinants of Health—Survival
  - Provided cash transfers or food baskets for up to 6 consecutive months, conditional on attending scheduled visits with the HIV care provider

INTERVENTION PACKAGE INFORMATION

An intervention package is not available at this time. Please contact **Sandra McCoy**, Division of Epidemiology, School of Public Health, University of California, 2121 Berkeley Way West, MC 7360, Berkeley, CA 94720.

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EVALUATION STUDY AND RESULTS

Study Location
The original evaluation study was conducted in Shinyanga, Tanzania between December 2, 2013 and August 17, 2016.

Key Intervention Effects
- Improved mediation adherence
- Increased retention in HIV care

Recruitment Settings
Two hospitals and one peri-urban clinic

Eligibility Criteria
PLHIV were eligible if they were at least 18 years of age; newly initiated on ART within 90 days or less; and were food insecure, as measured with the Household Hunger Scale (score of ≥ 2). Moderately malnourished PLHIV (BMI 16-18.5kg/m^2) were determined to be eligible for inclusion given the frequency of moderate malnutrition among ART initiates and the lack of any special nutritional or clinical services for this group at study sites.

Study Sample
The baseline study sample of 800 men and women is characterized by the following:
- *64% Female, 36% Male*
- *Median age of 35 years; interquartile interval 29-43 years*
- *Median body mass index (BMI) of 21.0 kg/m^2*

Assignment Method
Participants were individually randomized to 1 of 3 study arms: NAC and Cash Transfers (n = 347), NAC and Food Baskets (n = 345), or NAC-only comparison (n = 113).

Comparison
Participants in the comparison group received the standard HIV primary care services, including NAC.

Relevant Outcomes Measured
- Medication adherence was measured at 6 and 12 months post-initiation of intervention, and assessed as the proportion of patients with medication possession ratio (MPR, or the proportion of days in a specific interval

that an individual has possession of at least one ART dose). MPR was measured using cutoffs of 95% and 80%, as well as on a continuous scale.

Participant Retention

- NAC and Cash Transfers
  - 93% retained at 6 months post-initiation of intervention
  - 75% retained at 12 months post-initiation of intervention
- NAC and Food Baskets
  - 86% retained at 6 months post-initiation of intervention
  - 76% retained at 12 months post-initiation of intervention
- NAC-only Comparison
  - 80% retained at 6 months post-initiation of intervention
  - 72% retained at 12 months post-initiation of intervention

Significant Findings on Relevant Outcomes

NAC and Cash Transfers intervention vs NAC-only comparison

- A significantly greater proportion of NAC and Cash Transfers intervention participants achieved MPR ≥ 95% adherence than NAC-only comparison participants at 6 months post-initiation of intervention (unadjusted difference = 21.6%, 95% CI= 9.8—33.4, p<0.01; adjusted difference = 23.5%, 95% CI= 12.2—34.7, p<0.01), and 12 months post-initiation of intervention (unadjusted difference = 19.5%, 95% CI= 6.9—32.1, p<0.01; adjusted difference = 20.3%, 95% CI= 8.4—32.2, p<0.01).
- A significantly greater proportion of NAC and Cash Transfers intervention participants achieved MPR ≥ 80% adherence than NAC-only comparison participants at 6 months post-initiation of intervention (unadjusted difference = 13.6%, 95% CI= 3.9—23.3, p<0.01; adjusted difference = 15.2%, 95% CI= 6.2—24.3, p<0.01).
- NAC and Cash Transfers intervention participants had significantly greater MPR adherence when measured on a continuous scale than NAC-only comparison participants at 6 months post-initiation of intervention (unadjusted difference = 9.7%, 95% CI= 5.6— 13.8, p<0.01; adjusted difference = 10.5%, 95% CI= 6.5—14.4, p<0.01), and at 12 months post-initiation of intervention (unadjusted difference = 9.7%, 95% CI= 4.9—14.5, p<0.01; adjusted difference = 10.3%, 95% CI= 5.6—15.0, p<0.01).

NAC and Food Baskets intervention vs NAC-only comparison

- A significantly greater proportion of NAC and Food Baskets intervention participants achieved MPR ≥ 95% adherence than NAC-only comparison participants at 6 months post-initiation of intervention (unadjusted difference = 15.8%, 95% CI= 3.8—27.9, p<0.01; adjusted difference = 17.0%, 95% CI= 5.5—28.5, p<0.01).
- A significantly greater proportion of NAC and Food Baskets intervention participants achieved MPR ≥ 80% adherence than NAC-only comparison participants at 6 months post-initiation of intervention (adjusted difference = 9.4%, 95% CI= 0.1—18.8, p<0.05).
- NAC and Food Baskets intervention participants had significantly greater MPR adherence when measured on a continuous scale than NAC-only comparison participants at 6 months post-initiation of intervention (unadjusted difference = 7.5%, 95% CI= 3.4—11.6, p<0.01; adjusted difference = 8.0%, 95% CI= 4.1—11.9, p<0.01) and at 12 months post-initiation of intervention (unadjusted difference = 6.2%, 95% CI= 1.4—11.0, p<0.01; adjusted difference = 6.6%, 95% CI= 1.9—11.3, p<0.01).

Considerations

- This study did not meet best-evidence criteria because there was no measurement of viral load.
- Analyses were adjusted for site, WHO clinical stage, occupation, and language.
- This intervention also meets criteria as an evidence-based intervention for the Linkage to, Retention in and Re-engagement in HIV Care (LRC) and Structural Interventions (SI) Chapters of the PRS Compendium.

Non-significant effects on relevant outcomes:

- There was no statistically significant effects between the NAC and Cash Transfers intervention arm and NAC-only comparison arm for MPR≥ 80% adherence at 12 months post-initiation of intervention (unadjusted difference = 8.1, 95% CI= -1.6—17.7; adjusted difference = 8.5, 95% CI= -1.0—18.0).
- There were no statistically significant effects between the NAC and Food Baskets intervention arm and NAC-only comparison arm for
    - MPR≥ 80% adherence at 6 months post-initiation of intervention (unadjusted analyses only) (unadjusted difference = 8.3, 95% CI= -1.8—18.3)
    - MPR≥ 95% adherence at 12 months post-initiation of intervention (unadjusted difference = 8.7, 95% CI= -4.2—21.5; adjusted difference = 9.5, 95% CI= -2.6—21.7)
    - MPR≥ 80% adherence at 12 months post-initiation of intervention (unadjusted difference = 2.4, 95% CI= -7.7—38.1; adjusted difference = 2.5, 95% CI= -7.3—38.4)

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REFERENCES AND CONTACT INFORMATION

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