# Multifaceted programs targeting women in a fragile setting: evidence from the DRC

Manuela Angelucci (UT Austin) Rachel Heath (UW)
Eva Noble (WfW International)

December 2022

# South Kivu, Eastern DRC: A fragile, war-torn area 73% live in extreme poverty

# Gender Inequality in the DRC

- 163 out of 170 on the 2021 Women, Peace, & Security (WPS) Index
- 150 out of 162 on the UN's 2020 Gender Inequality Index
- 25% of national laws have some level of bias towards men
- Widespread VAW
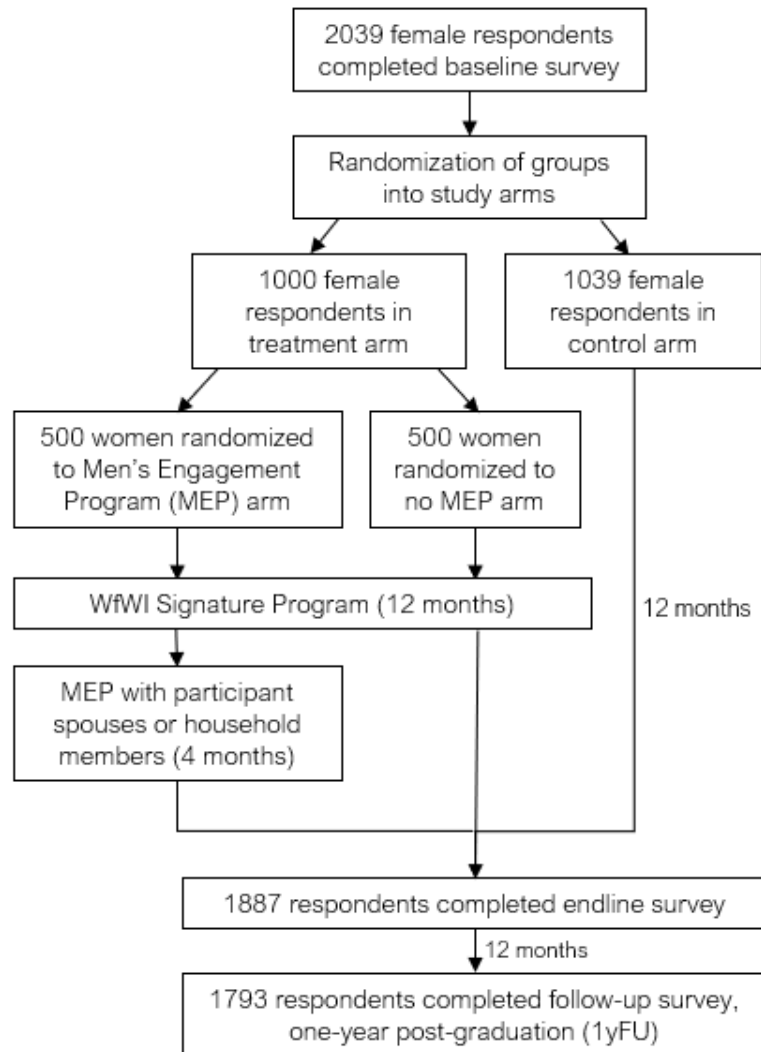
- Eastern DRC: "the rape capital of the world"

# A multifaceted program to empower women
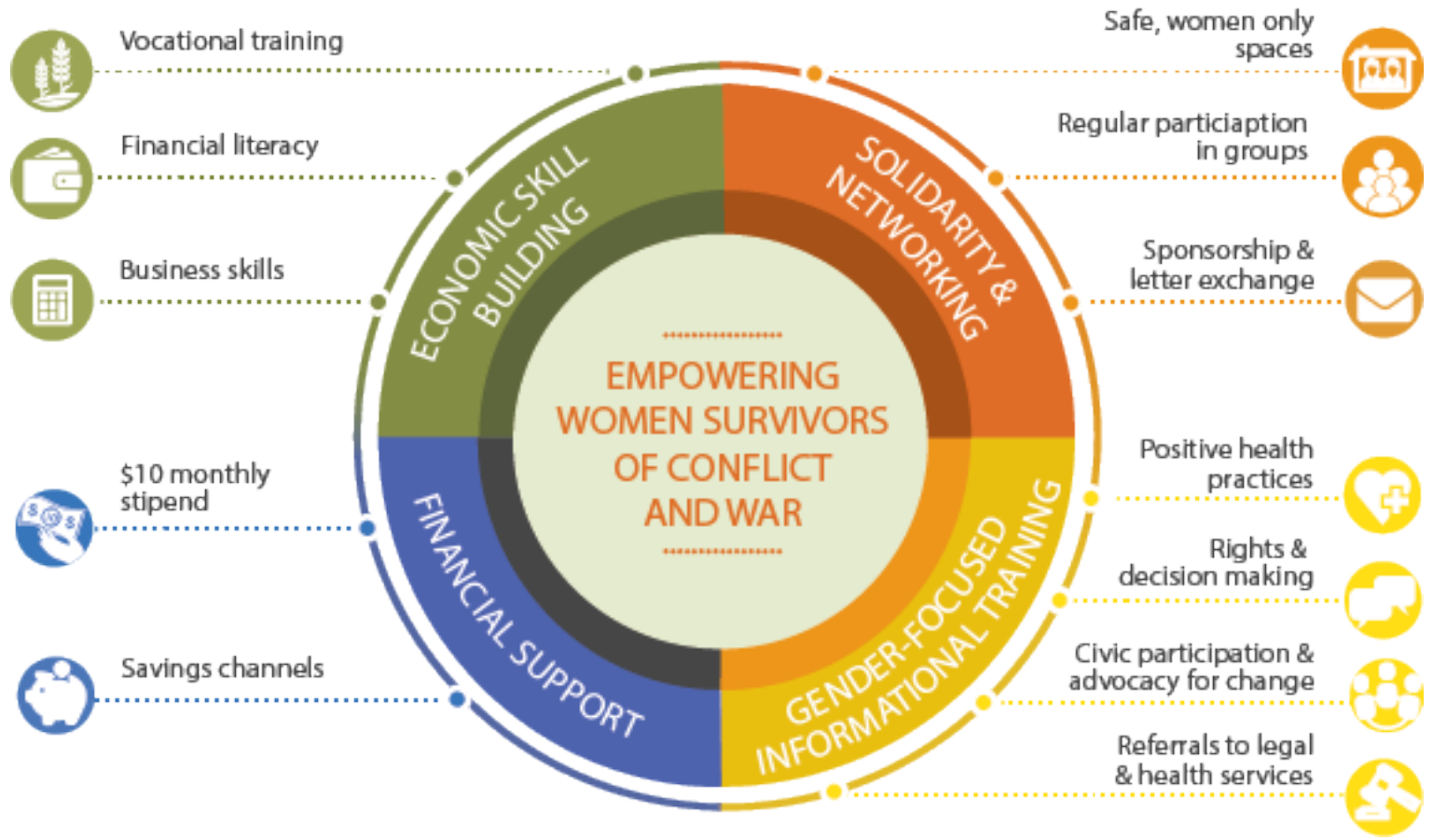
# Challenges & Questions

- Can aid programs increase wellbeing & empower women in fragile settings?
- Can a program without a large asset transfer have persistent benefits?
- Can women empowerment increase when women have very low status?
- Is also engaging men essential?
- Are there positive spillover effects in the household?
- Can there be negative impacts for some women?

# The approach: randomize treatment and men's engagement program (MEP)



2039 female respondents completed baseline survey

↓

Randomization of groups into study arms

↓

1000 female respondents in treatment arm

1039 female respondents in control arm

↓

500 women randomized to Men's Engagement Program (MEP) arm

500 women randomized to no MEP arm

↓

WfWI Signature Program (12 months) — 12 months

↓

MEP with participant spouses or household members (4 months)

↓

1887 respondents completed endline survey

↓ 12 months

1793 respondents completed follow-up survey, one-year post-graduation (1yFU)

- Community leaders/staff identify lowest SES women
- Surveys:
  - Baseline (2017); Endline (2018); 1yF-Up (2019)

- MEP:
- Male community leader training
- 16 weekly discussion groups, led by community leaders.
- 80% of the participants were spouses of WfWI participants.
- "Couple's Dialogue" session for couples needing extra support.

# Positive & Persistent Impacts on Meta Indices (SD)

Table 2: Effects of the Pooled Treatments on Meta-Indices (ITT)

| Dependent Variable | Index of | | | |
|---|---|---|---|---|
| | Consumption | Employment & Finances | Women Empowerment | Health |
| **Panel A: Endline** | | | | |
| Treatment | 0.125 | 0.0859 | 0.178 | 0.0370 |
| | (0.0293) | (0.0229) | (0.0597) | (0.0594) |
| | [.001] | [.001] | [.003] | [.155] |
| Control mean of dep. var | 0 | 0 | 0 | 0 |
| N | 1,886 | 1,852 | 1,278 | 1,807 |
| **Panel B: 1 Year Follow-Up** | | | | |
| Treatment | 0.100 | 0.0804 | 0.207 | 0.0839 |
| | (0.0327) | (0.0234) | (0.0631) | (0.0504) |
| | [.004] | [.004] | [.004] | [.026] |
| P-value: $\beta^{End} = \beta^{1YFU}$ | 0.896 | 0.372 | 0.776 | 0.697 |
| Control mean of dep. var | 0.0980 | 0 | -0.0660 | 0.313 |
| N | 1,793 | 1,759 | 1,295 | 1,607 |

*Notes.* Numbers in brackets are sharpened q-values (Benjamini et al., 2006) that control the false discovery rate.

Positive impacts on most outcomes; no fade-out at 1yF-Up



Figure 1: Treatment Effects at-a-glance
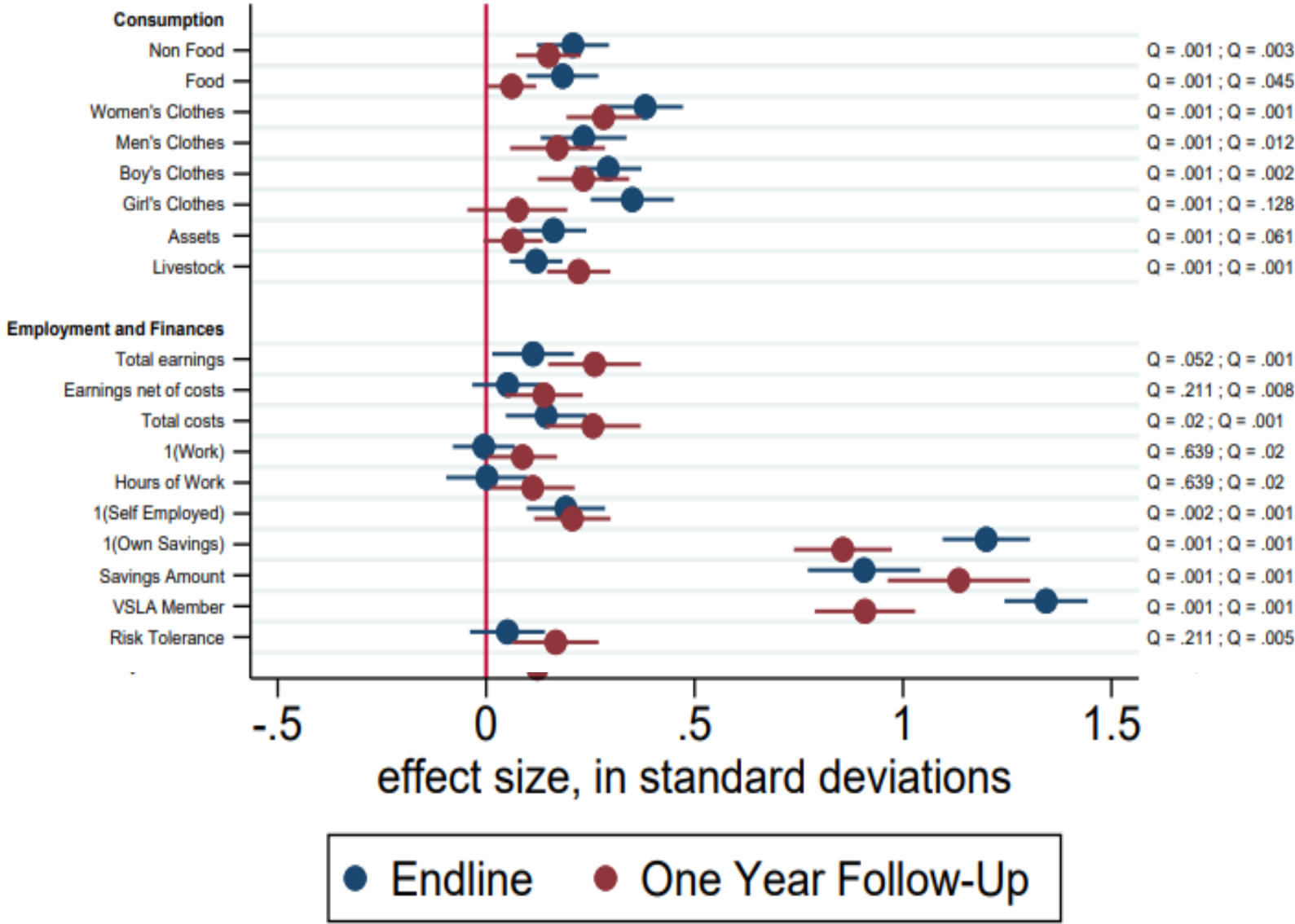
# Positive effects on consumption (non SD)

Table 3: Effects of the Pooled Treatments on Weekly Non-Durable Consumption, Assets, and Livestock (ITT)

| Dependent Variable | Total Consumption | | Clothing Expenditure on | | | | Durables (Indices) | |
|---|---|---|---|---|---|---|---|---|
| | Non-Food | Food | Women's | Men's | Girls' | Boys' | Assets | Livestock |
| **Panel A: Endline** | | | | | | | | |
| Treatment | 0.804 | 1.086 | 0.210 | 0.0377 | 0.0443 | 0.0375 | 0.158 | 0.122 |
| | (0.201) | (0.307) | (0.0300) | (0.00999) | (0.00728) | (0.00641) | (0.0464) | (0.0386) |
| | [.052] | [.211] | [.02] | [.639] | [.639] | [.002] | [.001] | [.001] |
| Control mean of dep. var | 4.076 | 8.431 | 0.316 | 0.0480 | 0.0590 | 0.0390 | -0.00600 | 0.00600 |
| N | 1,887 | 1,887 | 1,887 | 1,887 | 1,887 | 1,887 | 1,886 | 1,887 |
| **Panel B: 1 Year Follow-Up** | | | | | | | | |
| Treatment | 0.577 | 0.364 | 0.155 | 0.0276 | 0.0353 | 0.00800 | 0.0634 | 0.225 |
| | (0.180) | (0.209) | (0.0294) | (0.0111) | (0.00999) | (0.00771) | (0.0418) | (0.0463) |
| | [.001] | [.008] | [.001] | [.02] | [.02] | [.001] | [.001] | [.001] |
| P-value: $\beta^{End} = \beta^{1YFU}$ | 0.087 | 0.204 | 0.226 | 0.191 | 0.202 | 0.964 | 0.000 | 0.031 |
| Control mean of dep. var | 4.458 | 7.397 | 0.305 | 0.0590 | 0.0880 | 0.0670 | 0.00800 | 0.00700 |
| N | 1,793 | 1,793 | 1,793 | 1,793 | 1,793 | 1,793 | 1,793 | 1,793 |

# Positive impact on employment/finances (non SD)

| Dependent Variable | Total earnings (USD) | Earnings net of costs (USD) | Total business costs (USD) | Worked last week | Hours of work last week | Self employed | Own savings | Savings (USD) | VSLA member | Risk tolerance |
|---|---|---|---|---|---|---|---|---|---|---|
| *Panel A: Endline* | | | | | | | | | | |
| Treatment | 0.202 | 0.0714 | 0.180 | -0.00269 | 0.0266 | 0.0626 | 0.519 | 6.567 | 0.602 | 0.0884 |
| | (0.106) | (0.0704) | (0.0731) | (0.0223) | (0.814) | (0.0185) | (0.0273) | (0.588) | (0.0269) | (0.0936) |
| | [.052] | [.211] | [.02] | [.639] | [.639] | [.002] | [.001] | [.001] | [.001] | [.211] |
| Control mean of dep. var | 1.081 | 0.804 | 0.381 | 0.446 | 8.187 | 0.122 | 0.249 | 2.920 | 0.278 | 2.627 |
| N | 1,887 | 1,879 | 1,879 | 1,887 | 1,887 | 1,887 | 1,869 | 1,835 | 1,887 | 1,887 |
| *Panel B: 1 Year Follow-Up* | | | | | | | | | | |
| Treatment | 0.467 | 0.191 | 0.321 | 0.0433 | 1.548 | 0.0677 | 0.370 | 8.215 | 0.407 | 0.289 |
| | (0.120) | (0.0773) | (0.0859) | (0.0249) | (0.837) | (0.0180) | (0.0306) | (0.744) | (0.0324) | (0.107) |
| | [.001] | [.008] | [.001] | [.02] | [.02] | [.001] | [.001] | [.001] | [.001] | [.005] |
| P-value: $\beta^{End} = \beta^{1YFU}$ | 0.087 | 0.204 | 0.226 | 0.191 | 0.202 | 0.964 | 0.000 | 0.031 | 0.000 | 0.133 |
| Control mean of dep. var | 1.319 | 0.963 | 0.378 | 0.463 | 8.235 | 0.122 | 0.355 | 4.832 | 0.381 | 2.446 |
| N | 1,793 | 1,786 | 1,786 | 1,793 | 1,793 | 1,793 | 1,779 | 1,755 | 1,793 | 1,793 |

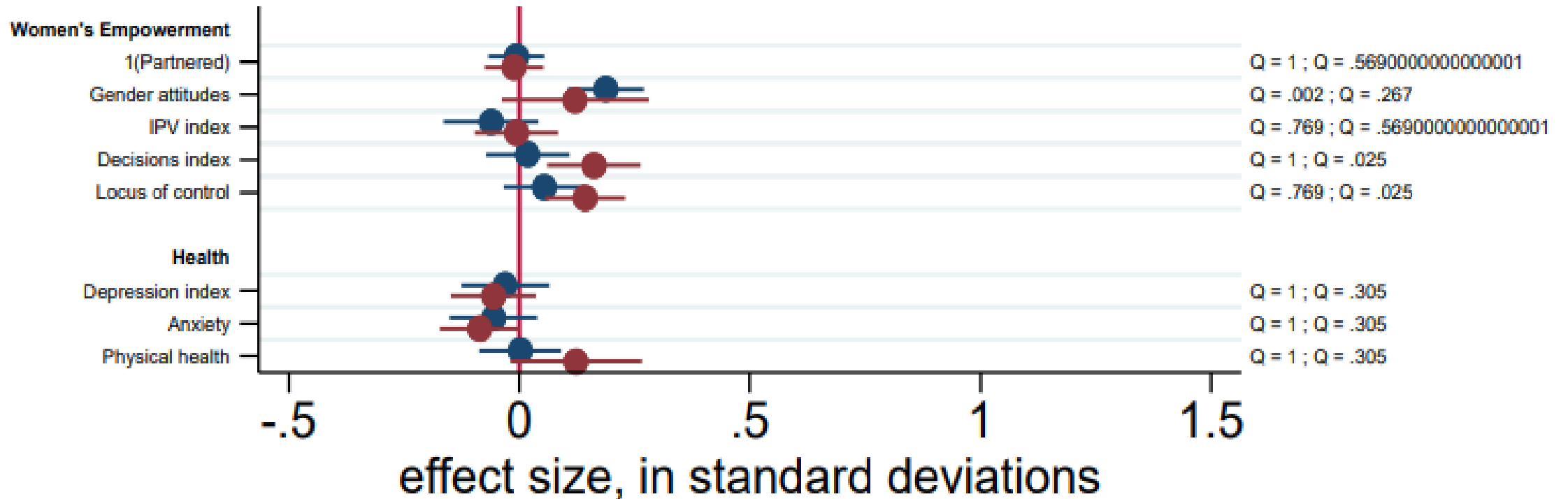# Distribution of non-durable hh consumption
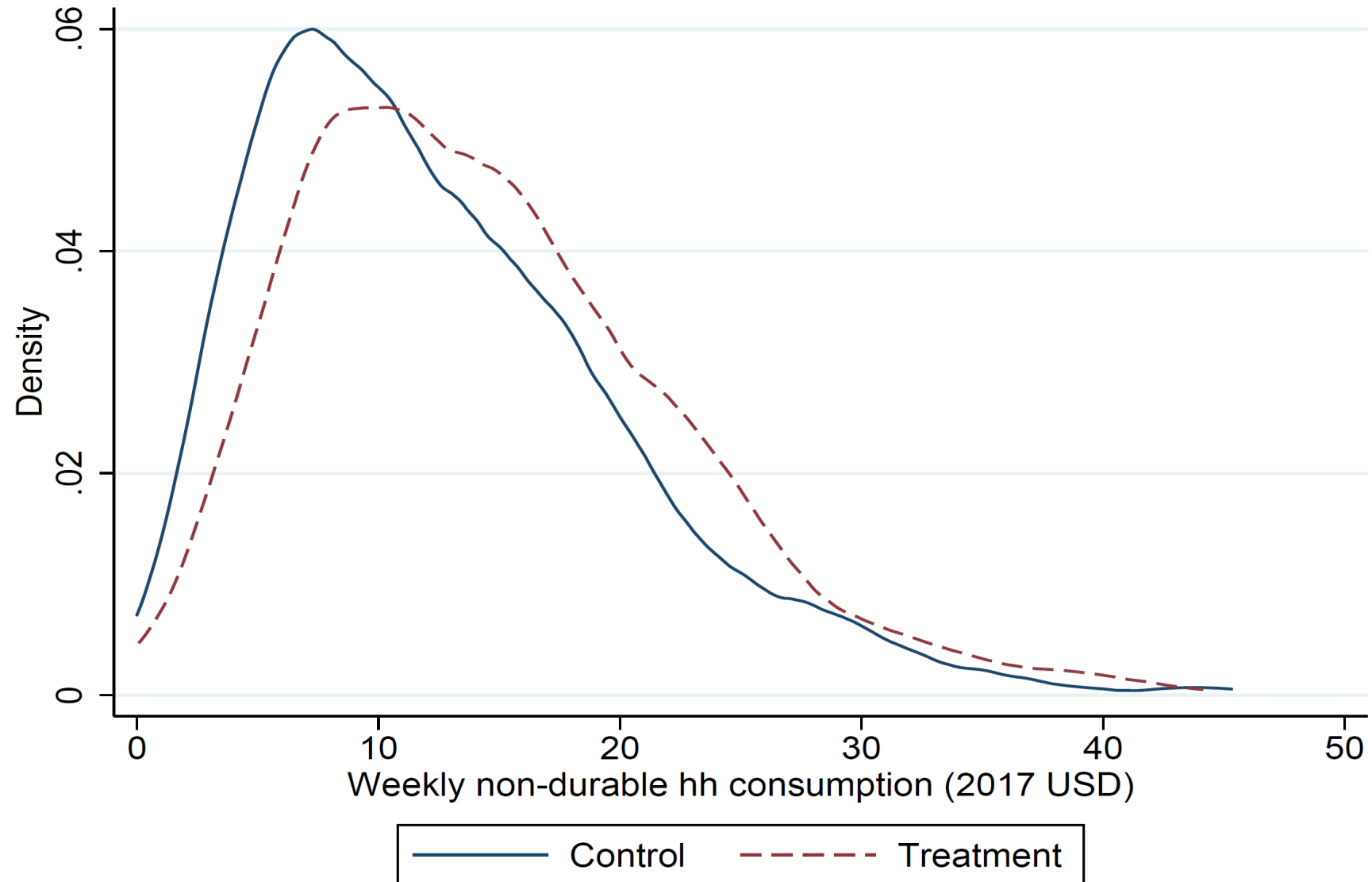
# Quantiles of non-durable hh consumption
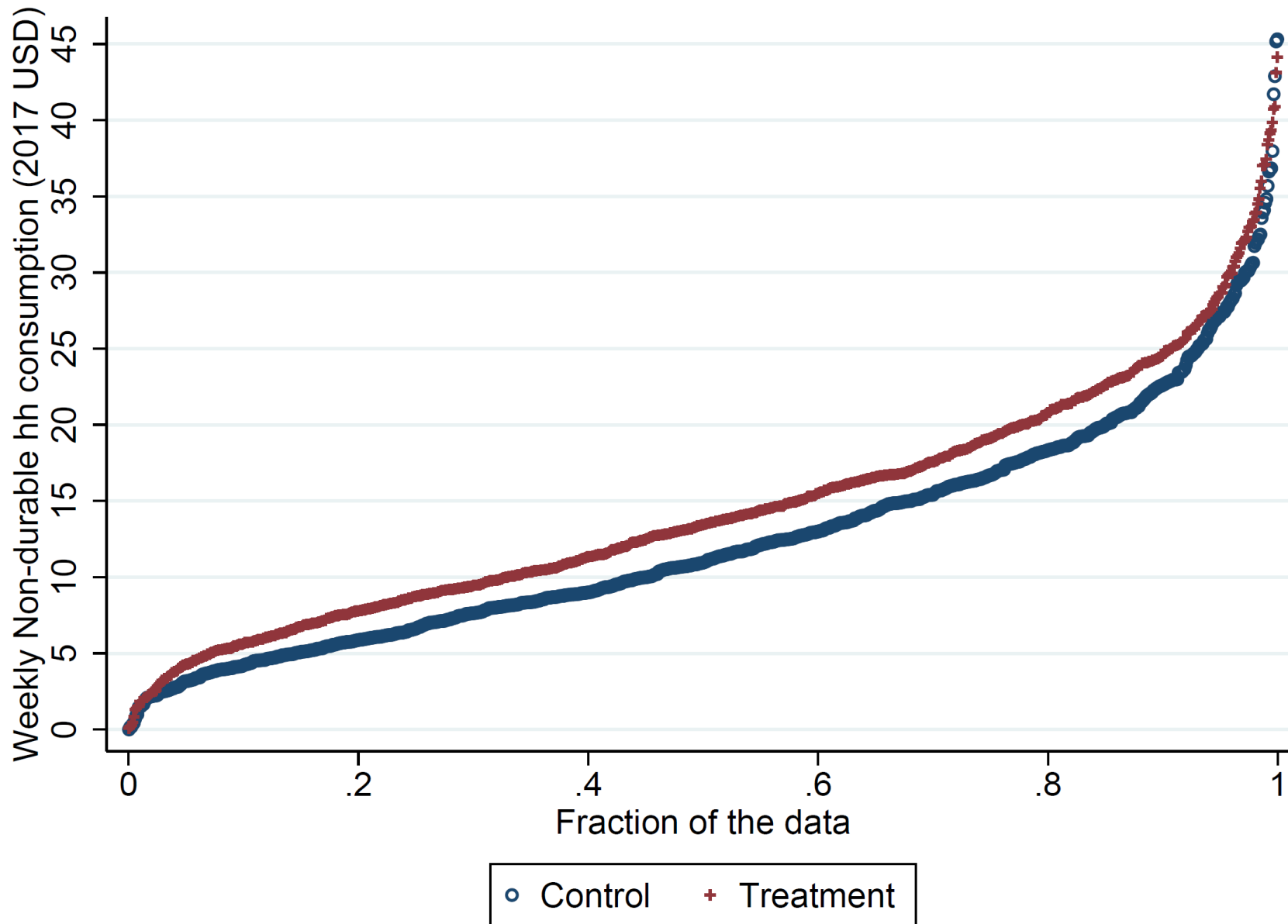
# Benefit-Cost Ratio (BCR)

- Program cost: USD354 pp
- BCR: 368%
- Intervention breaks even in 4-5 years
- IRR: 19.9%

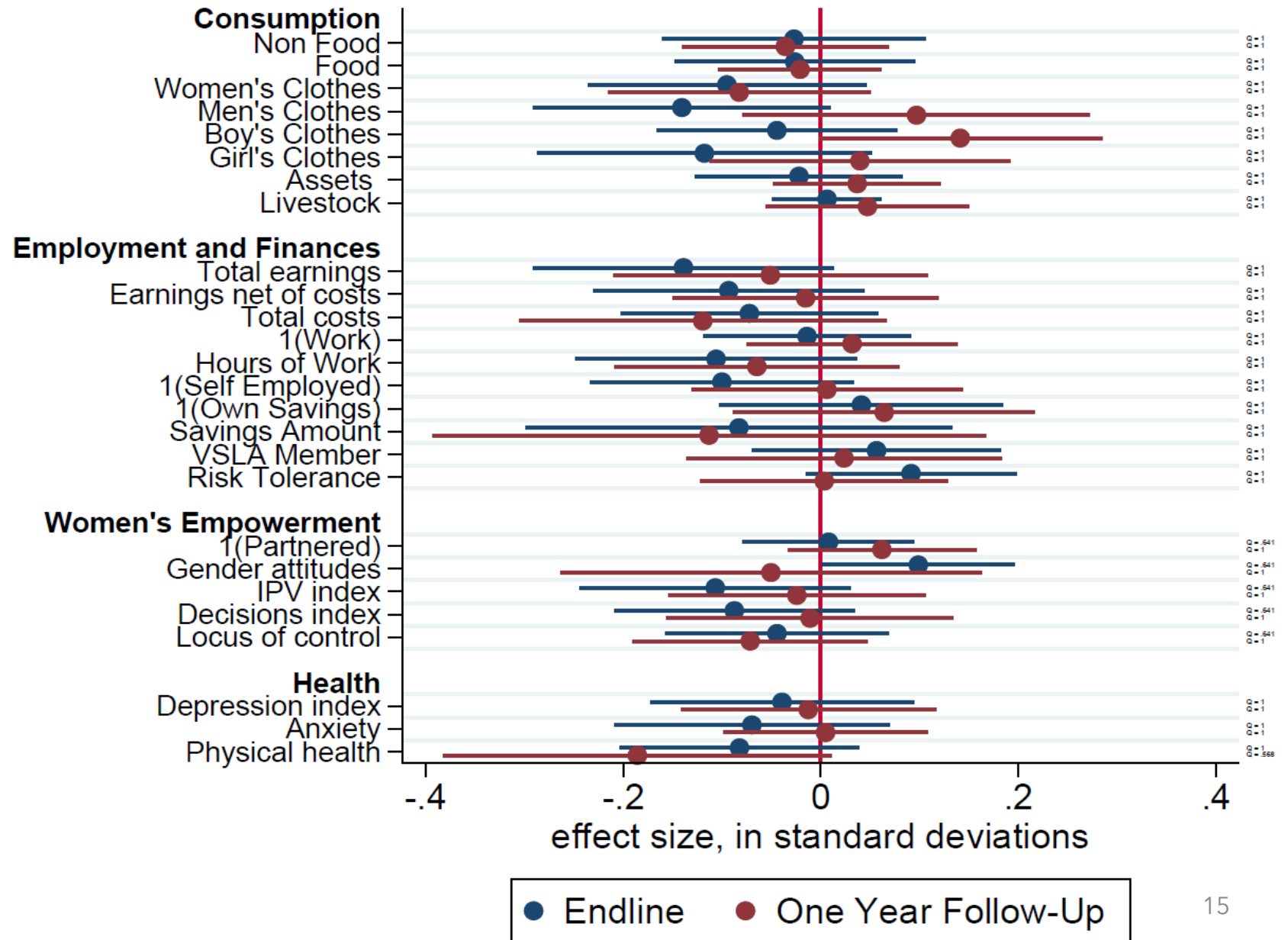- NOTE: (i) use nondurable consumption only; (ii) 20% as costly as Bedoya et al (2019)

# Positive impacts on some outcomes; no fade-out at 1yF-Up

Figure 5: ITT estimates of the MEP program

No effects of MEP

# Positive spillovers to partner's income and child schooling

- HH assets and consumption increase

- Children's school enrollment increases by 5pp (+7%)

- Partners' income increases by USD 0.7 p/w (+62%) vs women's income, which increases by USD 0.2 (+20%) (diff: p=0.06)
  - Economies of scale?
  - More profitable biz?
  - Spouses appropriate women's resources?

# Heterogeneous effects on IPV

Figure 2: IPV prevalence by treatment status and IPV risk predicted by baseline characteristics – Pooled across treatments and rounds
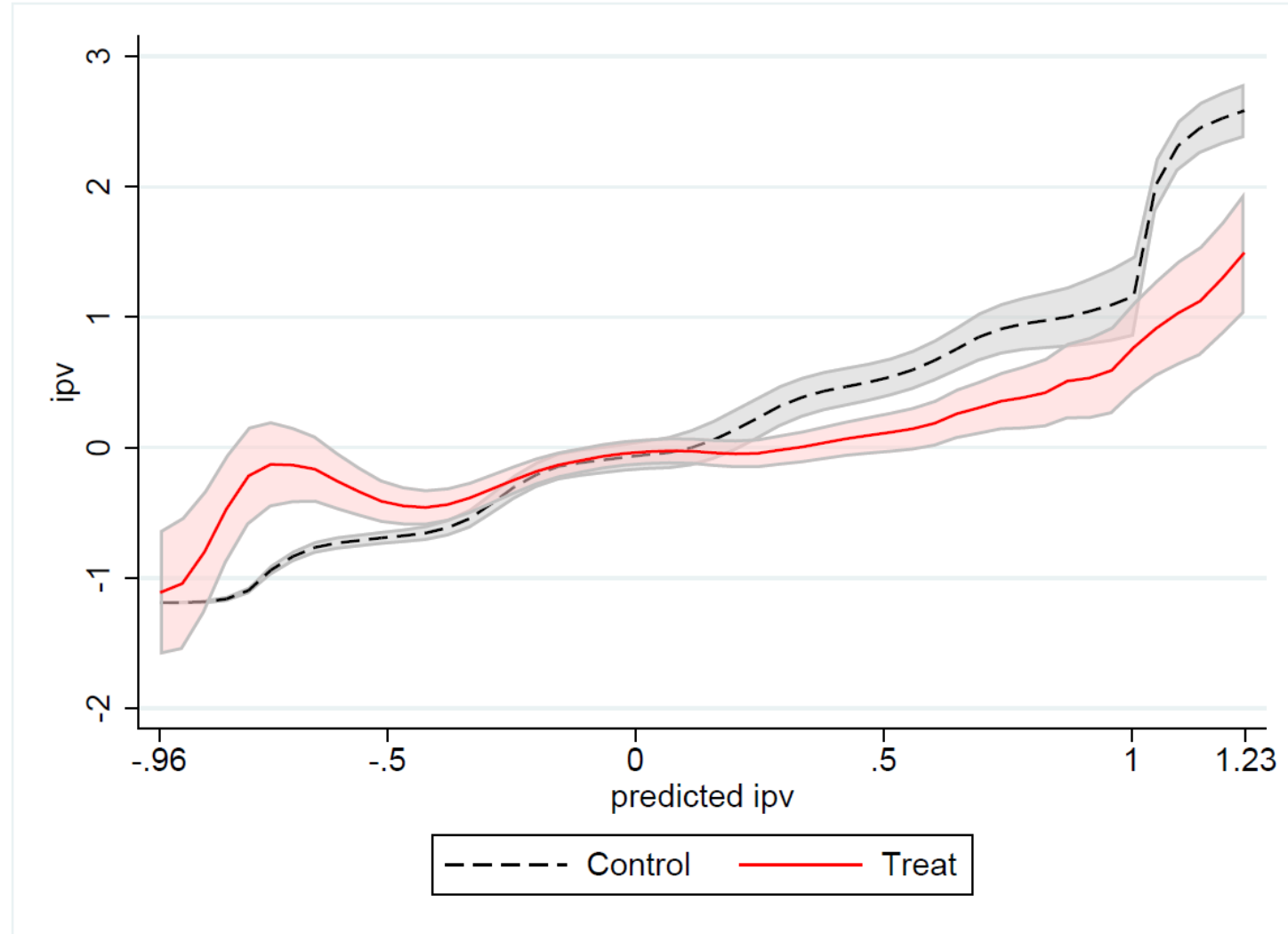
# Heterogeneous effects on IPV correlate with husbands' income, depression, not consumption

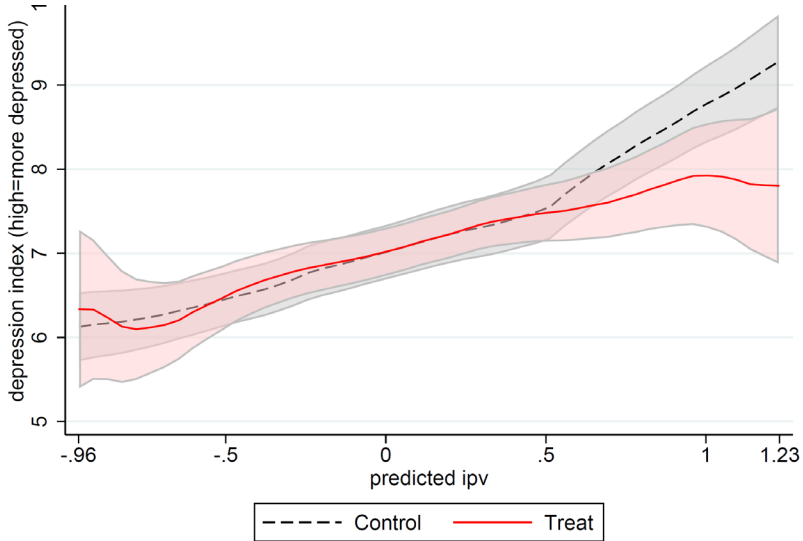Figure 2: IPV prevalence by treatment status and IPV risk predicted by baseline characteristics – Pooled across treatments and rounds
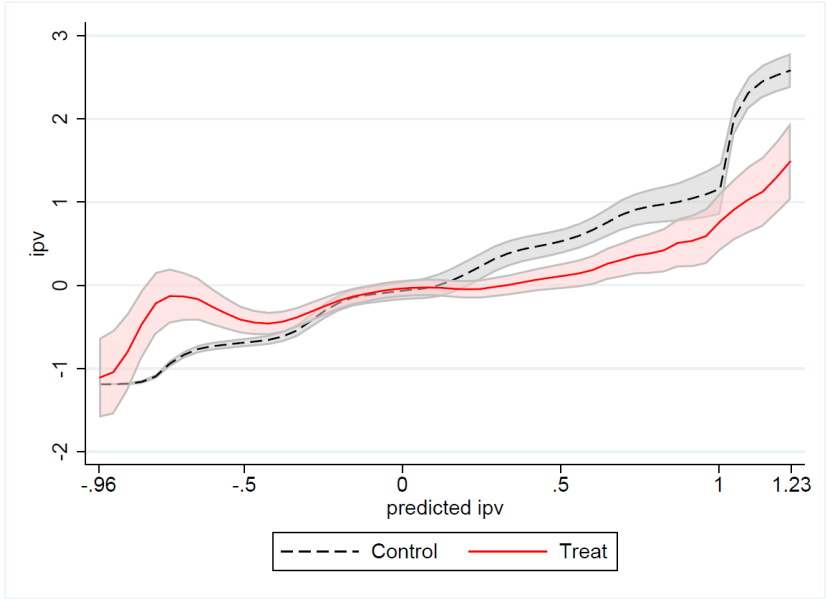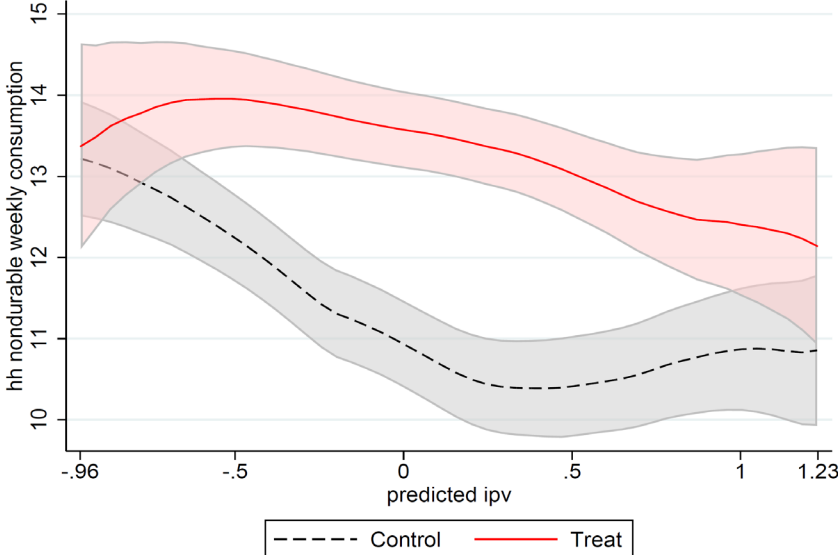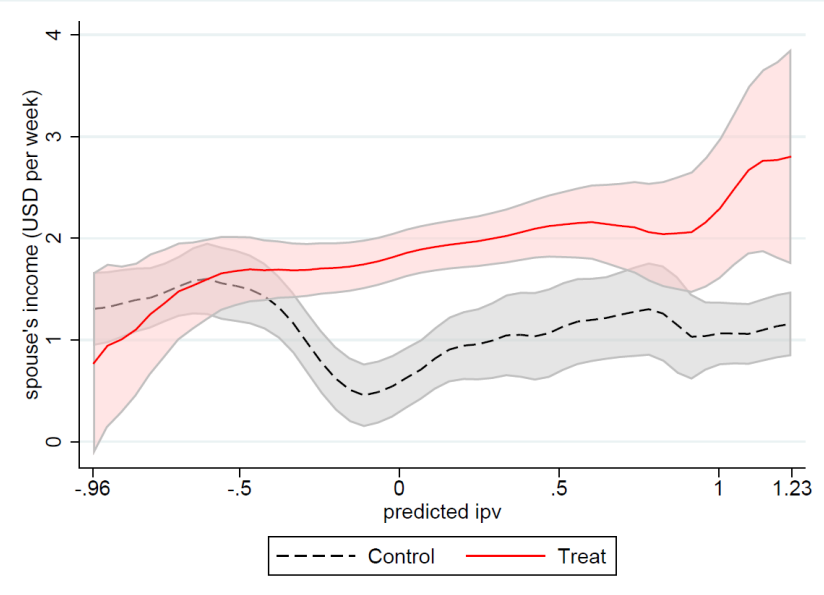
Figure 3: Partner Income by treatment status and IPV risk

# Questions & Answers

- Can multifaceted program increase wellbeing & empower women in fragile settings?
    - → <u>Yes</u>; similar evidence from Afghanistan (Bedoya et al 2019); however, longer-term impact unclear (small 4-yr impacts in Yemen, Brune et al 2022)

- Can a program without a large asset transfer have persistent benefits?
    - → <u>Yes</u>, after 2 years (cons+asset increase; no dissipation); longer follow-up needed

- Can women empowerment increase when women have very low status?
    - → <u>Yes</u>, at least temporarily

- Is also engaging men essential?
    - → <u>No</u>: MEP ineffective in our case; why?

- Are there positive spillover effects in the household?
    - → <u>Yes</u>: consumption, assets, education, partners' income

- Can there be negative impacts for some women?
    - → <u>Yes</u>: IPV increases for some; theory-consistent; need to monitor/plan accordingly