Caring About Carework: Experimental evidence on rural childcare provision in the DRC

Initial findings from a midline survey

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Motivation: Constraints to women farmers

- Women farmers consistently produce less per hectare
- Time is a resource in short supply for female farmers
  - 13.5 hours on productive and care activities compared to men’s 7 hours (USAID 2013’)
  - Women are significantly more likely than male respondents to be the care provider of children under 5 when farming in our sample
- Baby-profit gap documented in Uganda among female entrepreneurs (Délécourt and Fitzpatrick, 2021)
- Potential solution: childcare programs
- Could affect agricultural productivity through:
  - More time spent in the field
  - More productive use of that time
The majority of studies on childcare impact focus on child development.

In developed country studies: women’s access to childcare (e.g., through subsidizing the cost) leads to increases in women’s labor force participation (Bick 2016; Givord and Marbot 2014).

Evans, Jakiela, & Knauer (2021): review 478 studies published between 2005 and 2019 that evaluated ECD-related interventions in LMICs using an experimental or quasi-experimental research design.

- Only 19 studies (4%) examined maternal labor market outcomes.
- Limited body of evidence for impact on mothers in SSA.
- Knowledge gap for female farmers.
Kongo Central province of DRC
Main features of childcare centers

**Implementation arrangement**

- **REPAFE**: NGO contracted by GIL to run the centers:
  - hire, pay, and train providers (*encadreuses*)
  - collect attendance data
  - coordinate with village committees
  - focal points in each of the 4 territories

- **SERNAFOR/EPST**: GIL’s partner from Ministry of Education ➔ quality assurance and supervision

- **Save the Children**: Development of curriculum and training of trainers

- **Community/village committee**:
  - identify the provider
  - provide the center
  - involved in first level of Grievance Redress Mechanism
Main features of childcare centers

A hybrid model

• **Community-based**
  – Existing infrastructure provided by community
  – Childcare provider: community involved in the selection of the provider
  – Village-level committee

• **Open 5 days/week, 6 hours/day**

• **Number of children per center:** 14 maximum per provider, as per national guidelines
  – In practice, average of 9
  – Age range: 2-6

• **Structured curriculum** follows national standards and informed by international ECD best-practices

• **Food**
  – Initially parents to provide children with lunch/snack
  – Change course: co-funding of lunch

• **Equipment**
  – Basic equipment provided by project: chairs, mats, first aid kit, some toys, potable water, handwashing stations, plastic bucket, potties, nutrition kit, 1 mat and covid19 kit
Implementation timeline

Listing and Baseline Oct-Nov 2019

Batch 1: 25 centers open March 2020
Batch 1 centers close (COVID19) Apr 2020
Batch 1 centers close (COVID19) Dec 2020
Batch 1 centers re-open Sep 2020
Batch 1 centers re-open Jan 2020
Batch 2: 42 centers open May 2021
Midline data collection Oct-Dec 2021
Batch 1 centers close Nov 2021
Batch 2 centers close April 2022
Impact evaluation design

Two-stage randomization

- List of eligible villages provided by REPAFE + household listing exercise
- Village eligibility:
  - Village is interested in project
  - At least 10 eligible households (smallholder farmers with small children)
  - Available and free building
- Household eligibility:
  - Child between 1-5
  - Interested in sending child to center
  - Willing to pay a fee of 350FC/day/child or in-kind from crops
- Baseline survey
- Pair-wise randomization of villages, stratified by territoire, into treatment and control
- Public lotteries, select treatment and control women
Sample

- Sample
  - 55 treatment villages, with 67 centers
    - 529 treatment women
    - 515 spillover women
  - 55 control villages
    - 1048 index women

- At follow-up, reached:
  - 453 treatment women
  - 430 spillover women
  - 520 control women (half of control sample)
Compliance was a challenge

<table>
<thead>
<tr>
<th>All children:</th>
<th>Treatment (green ball)</th>
<th>Spillover (red ball)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child ever used REPAFE center</td>
<td>N 503</td>
<td>Mean/SE 0.732 [0.027]</td>
</tr>
<tr>
<td>Child uses center frequently (at least once a week)</td>
<td>N 503</td>
<td>Mean/SE 0.652 [0.032]</td>
</tr>
<tr>
<td>Children who use the center:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child uses center frequently (at least once a week)</td>
<td>N 368</td>
<td>Mean/SE 0.891 [0.023]</td>
</tr>
<tr>
<td>Number of days/week of attendance of REPAFE center</td>
<td>N 368</td>
<td>Mean/SE 4.533 [0.076]</td>
</tr>
</tbody>
</table>
## Descriptive Statistics & Balance

Among sample interviewed at midline

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Balanced?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household size</td>
<td>5.831</td>
<td>N</td>
</tr>
<tr>
<td>Number of adults (&gt;=15 years)</td>
<td>2.703</td>
<td>N</td>
</tr>
<tr>
<td>Number of children (&lt;=5 years)</td>
<td>1.420</td>
<td>Y</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>134.557</td>
<td>Y</td>
</tr>
<tr>
<td>Index woman age</td>
<td>32.071</td>
<td>Y</td>
</tr>
<tr>
<td>Index woman years of education</td>
<td>6.641</td>
<td>Y</td>
</tr>
<tr>
<td>Index woman is wife of hh head</td>
<td>0.875</td>
<td>Y</td>
</tr>
<tr>
<td>Number of plots owned by the hh</td>
<td>1.688</td>
<td>Y</td>
</tr>
<tr>
<td>Index woman is a plot manager</td>
<td>0.206</td>
<td>Y</td>
</tr>
</tbody>
</table>
Impact of rural childcare (1)

Time spent on carework

Reduction in time spent on childcare by
  – Index woman
  – Other female adults in household
Engagement in remunerated activities in the past 12 months

• Index woman increased engagement in commercial activities:
  – Farming of crops destined for sale
  – Agricultural processing
  – Wage work (eg. teaching, hairdressing)

• Index woman increased her time worked in remunerated employment

• Husband also increased engagement in
  – Farming of crops destined for sale
  – Non-agricultural self-employment
Impact of rural childcare (3)

**Earnings**

- Increase in woman’s monthly income, coming from wage employment

- Some signs of increase in husband’s income but measures are noisy
Zooming in on agricultural outcomes

- Agricultural productivity increases for plots farmed by household

- Increase in total value of crops sold on plots managed and controlled by woman

- Increase in productivity on plots on which woman controls the earnings
Woman’s outcomes and mechanisms

- Decrease in multi-tasking when farming
- Decrease in interruptions by children when working on plots
- Increase in concentration at work
- Increase in sense of control
- Increase in woman’s happiness
Other household outcomes

- No change in asset ownership
- No overall improvement in dietary diversity (though eat more vegetables)
- …But what about the kids?
- We look at CREDI (parent-reported module for kids between 6 and 48 months) and MELQO (direct child assessment for kids between 49 months and 92 months)
  - Increase in CREDI score
Key take-aways

- There is a demand for rural childcare
- Childcare services free up women farmers’ time and promotes their productivity
- Childcare services improve women and household’s earnings
Next steps

Intervention

- Support ended: handover/sustainability of centers
- Discussions with donors, government, task teams

Endline survey