Investigating the ICDS Nutritional Scheme on a Micro-Level: Insights on Aurepalle

By: Tariro Denise Makoni
World Food Prize Borlaug-Ruan International Intern
Contents:

• Introduction
• Background: ICDS
• Literature Review
• Research Objective, Questions, and Hypothesis
• Methodology
• Results
• Conclusion
• Village and Cultural Experience
Introduction:

• According to FAO 2013 World Fact book from 2005-2011 44% India’s children aged 0-5 were undernourished compared to 50% in 1990-1995.
• There is a disconnect between India’s high crop production and stubbornly high child malnourishment rates.
• Why does India have such high crop production, but almost 50% of its children are undernourished?
Contd:

MAP 34: Cereal producing countries (million tonnes, 2010)

No data available  0 ~ < 0.063  0.063 ~ < 1.4  1.4 ~ < 5.1  5.1 ~ 497.9
MAP 16: Map of hunger (% prevalence of undernourishment, 2012)

Legend:
- No data available
- 0 ~ < 5
- 5 ~ < 15
- 15 ~ < 25
- 25 ~ < 35
- 35 ~ 100

Contd:
# Integrated Child Development Services

<table>
<thead>
<tr>
<th>Services</th>
<th>Target Group</th>
<th>Service Provided by</th>
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<tbody>
<tr>
<td>Supplementary Nutrition</td>
<td>Children below 6 years</td>
<td>Anganwadi Worker (AWW) and Anganwadi Helper (AWH)</td>
</tr>
<tr>
<td></td>
<td>Pregnant &amp; Lactating Mothers (P&amp;LM)</td>
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<tr>
<td>Immunization*</td>
<td>Children below 6 years</td>
<td>Auxiliary Nurse Midwife (ANM)</td>
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<td>Pregnant &amp; Lactating Mother (P&amp;LM)</td>
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<td>Health Check-up*</td>
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<td>ANM/AWW</td>
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<td>Pregnant &amp; Lactating Mother (P&amp;LM)</td>
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<td>Referral Services</td>
<td>Children below 6 years</td>
<td>AWW/ANM</td>
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<td></td>
<td>Pregnant &amp; Lactating Mother (P&amp;LM)</td>
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<tr>
<td>Pre-School Education</td>
<td>Children 3-6 years</td>
<td>AWW</td>
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<td>Nutrition &amp; Health Education</td>
<td>Women (15-45 years)</td>
<td>AWW/ANM</td>
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</tbody>
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Contd:
ICDS Centers in Aurepalle
ICDS Centers in Aurepalle
Literature Review

• Village and Household Economics in India’s Semi Arid Tropics. T S Walker and J G Ryan (1990)
• Persisting Malnutrition in Chandigarh: Decadal Underweight Trends and Impact of ICDS Program. Thakur, Bhatia, Prinja (2010)
Main Research Objective, Question, and Hypothesis

• Objective: To determine whether the ICDS nutritional scheme is beneficial towards lessening childhood malnutrition on a micro-level.

• Main Research Question: Is the ICDS nutritional scheme beneficial towards lessening childhood malnutrition (ages 0-5) in Aurepalle?

• Main Research Hypothesis: The ICDS nutritional scheme is beneficial towards lessening childhood malnutrition in Aurepalle.
Research Questions and Hypothesis

• The following questions and hypothesis were broken up in order to be analyzed quantitatively and qualitatively.

Sub-Questions and Hypothesis:
• Which gender is more malnourished?
  • Girls are more malnourished than boys.

• How have each gender’s nutritional growth progressed over time?
• Both gender’s nutritional growth started out very poor and malnourished, but ended very strong and healthy.
Contd.

- Do men and women place the same level of importance regarding the ICDS nutritional scheme?
- Men and women do not place the same level of importance regarding the ICDS nutritional scheme.

- Do the Anganwadi Worker and Helper find the ICDS nutritional scheme to be beneficial towards childhood growth?
- The Anganwadi Workers and Helpers find the ICDS nutritional scheme to be beneficial towards childhood growth.
Methodology

• Quantitative Methodology
• Qualitative Methodology
Results: Quantitative Trends

• I found that in all 3 centers, the data for the boys started out completely full, but each center’s chart had less than 30% of its original participants by the 5 year mark.

• A similar trend was found in data for the girls, where it started out completely full, but by the 5 year mark, each center’s chart contained only 25% of it’s original participants.

• All participants who completed the scheme ended in the highest weight for age category.
Results: Qualitative Trends

Reasons for Joining ICDS

- Day Care
- Education
- Food is Provided
- Child Interaction

PERCENT OF RESPONDANTS
Results: Quantitative Analysis

Weight for Age Comparison, Girls and Boys Attending Anganwadi; Aurepalle

- GIRLS 1 YEARS: 7.11
- Boys 1 YEARS: 7.148
- GIRLS 2 YEARS: 9.8
- Boys 2 YEARS: 9.63
- GIRLS 3 YEARS: 12.51
- Boys 3 YEARS: 11.48
- GIRLS 4 YEARS: 13.36
- Boys 4 YEARS: 13.11
- GIRLS 5 YEARS: 15.62
- Boys 5 YEARS: 15.57
Results: Quantitative Analysis

Weight for Age Comparison, Girls and Boys; Andhra Pradesh

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<tr>
<th>Year</th>
<th>Girls</th>
<th>Boys</th>
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Results: Quantitative Analysis

Girls Weight for Age Comparison, Anganwadi Aurepalle and VLS Andhra Pradesh

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<tr>
<th>Year</th>
<th>VLS</th>
<th>ICDS</th>
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<td>13.37</td>
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<td>9.8</td>
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<td>5</td>
<td>16.36</td>
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### Results: Quantitative Analysis

**Boys Weight for Age Comparison, Anganwadi Aurepalle and VLS Andhra Pradesh**

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<td>16.15</td>
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Results: Qualitative Analysis

ICDS Ratings

- ICDS Beneficial to Child's Health
- Nutritional Scheme
- Child's overall health
- Sanitation Education
- Bathrooms
Results: Qualitative Analysis

Food Ration Provided

- 75 g Rice
- 15 g Dal
- 5 g Oil
- 25 Paire Vegetable
- Nutritional Supplement
- Firewood
- 90g Halwa (kids)
- 125g Halwa (Women)
- 90g Kichidi (Kids)
- 125g Kichidi (Women)
- 110g MTF
- 25g Kukure
Conclusion

• In conclusion, I found the ICDS nutritional scheme to be beneficial towards reducing childhood malnutrition in Aurepalle only towards the beneficiaries who actively participated in the program.

• Nutritional awareness in the village is something that is hindering the health of the children in Aurepalle.

• Team work between the government, ICDS workers, parents, and children is of the highest regard to ensure a proper implementation of the ICDS nutritional scheme.
Conclusion

Parents are happy with the program, and children continue ICDS participation.

Andhra Pradesh Government

Anganwadi Center receives money and supplementary nutrition.

Center remains open, and provides all ICDS services.

Children perform optimally, and remain attending the center.

Parents are happy with the program, and children continue ICDS participation.

Andhra Pradesh Government

Anganwadi Center receives no money or supplementary nutrition.

Center must close for the month, or provide no supplementary nutrition for children

If center remains open, but provides no supplementary nutrition, children will suffer nutritionally for the month

Parents are angry because their children are not performing well nutritionally. Parents can’t do proper work when children are home so children are pulled out of ICDS scheme and sent to a different school.

If center closes, children suffer nutritionally, remain idle at home.

Parents are angry because their children are not performing well nutritionally. Parents can’t do proper work when children are home so children are pulled out of ICDS scheme and sent to a different school.
Cultural Experience: Aurepalle Trip
Cultural Experience: Dancing at ICRISAT!
Thank you!