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**Child measurements and assessments in *anganwadi* centres**

Tamil Nadu Integrated Child Development Services Project  
Baseline

J-PAL South Asia

**INSTRUCTIONS**

- Begin the survey at 8:30 am.

**PART 1 - GENERAL INFORMATION**

- 1) Surveyor ID [*Check your ID card*]:
- 2) Date of the survey [*Select the date, month, and year below*]:
- 3) District [*Ask your field supervisor*]:
- 4) Project [*Ask your field supervisor*]:
- 5) Sector [*Ask your field supervisor*]:
- 6) AWC [*Ask your field supervisor*]:

**PART 2 – ORAL CONSENT STATEMENT**

- *Read out the following statement to the anganwadi worker (AWW) and anganwadi helper (AWH), and request them for consent to conduct the survey at the aganwadi centres (AWC).*

**Project title:** Improving school preparedness and child health outcomes through Tamil Nadu Integrated Child Development Services

**Principal Investigators:** Professor Karthik Muralidharan (Associate Professor, Department of Economics, University of California, San Diego), Christopher Walters (Assistant Professor, Department of Economics, University of California, Berkeley), and Alejandro Ganimian (Education Post-Doctoral Fellow, J-PAL South Asia)

**Districts:** Chennai, Kancheepuram, Karur, Tiruchirapalli and Virudhunagar

**Version date:** August 20, 2016

**Participation is voluntary**

It is your choice whether or not to participate in this research. If you do not choose to participate, you may change your mind and leave the study at any time. Refusal to participate or stopping your participation will involve no penalty or loss of benefits to which you are otherwise entitled.

**What is the purpose of this research?**

The purpose of this research is to identify the most cost-effective policies to improve the health, nutrition, and education of children in *anganwadi* centres.

### **How long will I take part in this research?**

Your participation in this study will entail cooperating with our surveyors on the following surveys:

- At baseline: (a) a survey of infrastructure and AWC staff; (b) a survey of child anthropometrics and child assessments.
- During the school year: (a) a survey of AWW effort, monitoring, and satisfaction; (b) a classroom observation protocol; and (c) a survey of child anthropometrics.
- At each follow-up: (a) a survey of child anthropometrics

We will administer the aforementioned surveys at each *anganwadi* centre over the course of one day on each round of data collection.

### **What can I expect if I take part in this research?**

As a participant, your *anganwadi* centre will be visited up to two times to administer the aforementioned surveys.

### **What are the risks and possible discomforts?**

We do not foresee any potential risks (psychological, physical, social, legal, or other) for study participants.

### **If I take part in this research, how will my privacy be protected? What happens to the information you collect?**

All of the data that we will collect for this study will be entered into two separate datasets: a) one that contains your name and contact information; and b) another one which assigns you a confidential ID and contains the rest of the data from this study.

Both datasets will be stored and encrypted at a password-protected laptop in the J-PAL South Asia office in Chennai. The computer will be kept under lock. Only the de-identified data will be used for analysis purposes.

Your senior officials and supervisors will not have access to your responses to these surveys. They will only be informed of the results of the study, which will be aggregated at the district level and will contain no identifiers to you or any other *anganwadi* staff in the state.

### **If I have any questions, concerns or complaints about this research study, who can I talk to?**

The principal investigator for this study is Karthik Muralidharan who can be reached at +1 (617) 501-2459, Department of Economics (Office 315), 9500 Gilman Drive, La Jolla, CA 92093-0508, or [kamurali@ucsd.edu](mailto:kamurali@ucsd.edu) for any of the following:

- If you have questions, concerns, or complaints,
- If you would like to talk to the research team,
- If you think the research has harmed you, or
- If you wish to withdraw from the study.

This research has been reviewed by the Committee on the Use of Human Subjects in Research at the Institute for Financial Management and Research. They can be reached at

24 Kothari Road, Nungambakkam, Chennai 600034, India, or [sundar@ifmr.ac.in](mailto:sundar@ifmr.ac.in) for any of the following:

- If your questions, concerns, or complaints are not being answered by the research team,
- If you cannot reach the research team,
- If you want to talk to someone besides the research team, or
- If you have questions about your rights as a research participant.

7) Did the AWW provide consent?

1. Yes
2. No
3. AWW not present at the AWC

**Commented [A1]:** If option 1 is selected, show Q8.

If option 2 is selected, skip to Part 5.

If option 3 is selected, show Q8.

8) Did the AWH provide consent?

1. Yes
2. No
3. AWH not present at the AWC

**Commented [A2]:** If option 1 is selected, show Part 3.

If option 2 is selected, skip to Part 5.

If option 3 is selected for Q8 and option 1 is selected for Q7, skip to part 3.

If option 3 is selected for Q8 and Q7, skip to Part 6.

### **PART 3 – CHILD DETAILS**

- Begin this section at 8:45 am.
- Administer this survey with assistance from the AWW. If the AWW is not present at the AWC, notify your field supervisor and use the AWH's assistance.
- Before you begin this section, ask the AWW to take out Register no. 1: Family details register, Register no. 4: Pre-school attendance register, Register no. 7: Vitamin A register and Register no. 10: Child measurements register.
- Ask the AWW to show you the attendance list for August 2016 in Register no. 4: Pre-school attendance register. From this list, only enter the names of male and female children aged 2-3 years, 3-4 years, 4-5 years and 5-6 years who attended pre-school at least once in August 2016.

9) How many children aged 2-6 years have attended pre-school at least once in August, 2016? [Ask the AWW]

Select 'Add group' below to enter children's details

10) What is the child's name? [Enter the child's name from Register no. 4: Pre-school attendance register]

11) What is the child's sex? [Enter the child's sex from Register no.4: Pre-school attendance register]

1. Male
2. Female

12) What is the child's household number in Register no. 1: Family details register? [Enter the child's household number from Register no. 1: Family details register. DO NOT enter the household number from Register no. 4: Pre-school attendance register]

1. \_\_\_\_\_

2. Not recorded

13) Re-enter the child's household number from Register no. 1: Family details register. [Enter the child's household number from Register no. 1: Family details register. DO NOT enter the household number from Register no. 4: Pre-school attendance register]

14) What is the child's serial number (S.No.) in Register no. 1: Family details register? [Enter the child's serial number (S.No.) from Register no. 1: Family details register. DO NOT enter the serial number (S.No.) from Register no. 4: Pre-school attendance register]

1. \_\_\_\_\_  
2. Not recorded

15) Re-enter the child's serial number (S.No.) from Register no. 1: Family details register. [Enter the child's serial number (S.No.) from Register no. 1: Family details register. DO NOT enter the serial number (S.No.) from Register no. 4: Pre-school attendance register]

16) What is the child's date of birth? [Enter the child's date of birth from Register no. 1: Family details register]

1. DD/MM/YYYY  
2. Not recorded

17) What is the child's age? [Enter the child's age as recorded in Register no. 4: Pre-school attendance register]  
\_\_\_\_\_ Years \_\_\_\_\_ Months

**Commented [A3]:** This is a conditional question. Show it if option 2 is selected for Q16.

18) Enter the name of the head of the household [Ask the AWW to check Register no. 1: Family details register].

1. \_\_\_\_\_  
2. Not recorded

19) What is the child's household number in Register no. 7: Vitamin A register? [Enter the child's household number from Register no. 7: Vitamin A register]

1. \_\_\_\_\_  
2. Not recorded

20) What is the child's serial number (S.No.) in Register 7: Vitamin A register? [Enter the child's serial number from Register no. 7: Vitamin A register]

1. \_\_\_\_\_  
2. Not recorded

21) What is the child's household number in Register no. 4: Pre-school attendance register? [Enter the child's household number from Register no. 4: Pre-school attendance register]

1. \_\_\_\_\_  
2. Not recorded

**Commented [A4]:** This is a conditional question. Show it if option 2 is selected for Q19.

22) What is the child's serial number in Register no. 4: Pre-school attendance register?  
[Enter the child's serial number from Register no. 4: Pre-school attendance register]

1. \_\_\_\_\_
2. Not recorded

**Commented [A5]:** This is a conditional question. Show it if option 2 "not recorded" is selected for Q20.

23) Does the child live in the AWC catchment area? [Ask the AWW]

1. Yes
2. No
3. Don't know

24) Did the child attend pre-school education at the AWC at least once in the past six working days? [Check the child's attendance in Register no. 4: Pre-school attendance register]

1. Yes
2. No
3. Not recorded

25) What is the child's nutrition status in Register no. 10: Child measurements register?  
[Ask the AWW to check the child growth chart in Register no. 10: Child measurements register]

1. Severely underweight (SUW)
2. Moderately underweight (MUW)
3. Overweight (OW)
4. Normal
5. Not recorded

26) Does the child have any physical disabilities? [Ask the AWW]

1. Yes
2. No
3. Don't know

27) What type of physical disability does the child suffer from? [Ask the AWW and select all that apply]

1. Mobility impairment
2. Visual impairment
3. Hearing loss
4. Other. Please specify: \_\_\_\_\_

**Commented [A6]:** Show this if option 1 "Yes" is selected for Q26. Allow multiple options to be selected.

28) Does the child have any cognitive disabilities? [Ask the AWW]

1. Yes
2. No
3. Don't know

29) What type of cognitive disability does the child suffer from? [Ask the AWW]

1. Intellectual disability
2. Learning disability
  - a. Reading (dyslexia)
  - b. Mathematics (dyscalculia)
  - c. Writing (dysgraphia)

**Commented [A7]:** Show this if option 1 "Yes" is selected for Q28. Allow multiple options to be selected.

- d. Don't know
- 3. Others. Please specify: \_\_\_\_\_
- 4. Don't know

30) Do you have doctor's certification for the child's disability? [Ask the AWW. Select 'Yes' only if the AWW shows you a doctor's certification with the child's name and disability.]

- 1. Yes
- 2. No

**Commented [A8]:** Show this if option 1 "Yes" is selected for Q28.

31) Do you think you have identified the child correctly?

- 1. Yes
- 2. No

#### **PART 4 – CHILD MEASUREMENTS AND ASSESSMENTS**

- Administer this section between 10 am and 11:15 pm. First survey children who are already present at the AWC, and continue surveying children as they come into the AWC.
- Do not collect weight or height measurements after 12pm.

32) Select the name of the child from the list provided below:

**Commented [A9]:** Repeat Q33 – Q37 as a roster for every child in the list under Q32.

#### **PART 4.1 - CHILD MEASUREMENTS**

33) Is the child present at the AWC on the day of the survey?

- 1. Yes
- 2. No

**Commented [A10]:** Skip to the next child/Part 4.2 if option 2 "No" is selected.

[Ask the AWW to mark the child's attendance for the day in Register no. 4: Pre-school attendance register]

34) What is the child's weight? [Measure the child's weight using the weighing scale. Refer to the survey manual for guidance on how to use the weighing scale]

- 1. \_\_\_\_\_ kgs
- 2. Unable to measure child's weight
  - 1. Child uncooperative
  - 2. Child disabled
  - 3. Other. Please specify: \_\_\_\_\_

35) What is the child's weight? [Measure the child's weight using the weighing scale. Refer to the survey manual for guidance on how to use the weighing scale]

\_\_\_\_\_ kgs

36) What is the child's height? [Measure the child's height using the stadiometer. Refer to the survey manual for guidance on how to use the stadiometer]

- 1. \_\_\_\_\_ cms
- 2. Unable to measure child's height
  - 1. Child uncooperative
  - 2. Child disabled
  - 3. Other. Please specify: \_\_\_\_\_

37) What is the child's height? [Measure the child's height using the stadiometer. Refer to the survey manual for guidance on how to use the stadiometer]  
\_\_\_\_\_ cms

#### **PART 4.2 - CHILD ASSESSMENTS**

- Administer this section between 11:30am and 4pm.
- Take each child outside of the anganwadi centre so that you do not disturb pre-school activities.
- Sit away from the other enumerator so that you do not interfere with the assessments of other children.
- Sit at the same level of the child (e.g., both sit on the floor; both sit on chairs).
- Conduct the survey on your own. However, if the child is too shy or he/she is not paying attention, ask the anganwadi worker for help. If you ask her for help, make sure she does not prompt the child.

38) Select the name of the child from the list provided below:

**Commented [A11]:** Repeat Q39-Q48 for every child in the list under Q38.

39) Is the child present at the AWC on the day of the survey?

1. Yes
2. No

**Commented [A12]:** Skip to Part 5 if option 2 is selected.

#### **EXECUTIVE FUNCTION**

40) **Shape card sort:**

*Let's play a game with pictures. I will show you a picture, and you will point to the picture that matches the SHAPE of the card. [Do not correct the child if he/she (incorrectly) believes the apple is some other object (e.g., tomato) or the truck is some other object (e.g., car). The point of this exercise is that children match the SHAPE of the card.]*

*Let's try an example. [Show green truck.] Which picture matches its shape?*

*[If the child points to the truck.] Very good!*

*[If the child points to the apple.] The answer is the truck.*

*Let's try another one. [Show yellow apple.] Which picture matches its shape?*

*[If the child points to the apple.] Good! Now, let's start playing the game.*

*[If the child points to the truck.] The answer is the apple. Now, let's start playing the game.*

1. [Show the blue truck.]
2. [Show the orange apple.]
3. [Show the red truck.]
4. [Show the purple apple.]

41) **Colour card sort:**

*Now let's play a different game. I will show you a picture, and you have to tell me which of two pictures matches the COLOUR of the card. [Do not correct the child if he/she (incorrectly) believes the apple is some other object (e.g., tomato) or the truck is some other object (e.g., car). The point of this exercise is that children match the COLOUR of the card.]*

*Let's try an example. [Show red bananas.] Which picture matches its colour?*

[If the child points to the apple.] *Very good!*

[If the child points to the truck.] *The answer is the red apple.*

*Let's try another one. [Show red apple.] Which picture matches its colour?*

[If the child points to the apple.] *Good! Now, let's start playing the game.*

[If the child points to the truck.] *The answer is the red apple. Now, let's start playing the game.*

1. [Show the blue house.]
2. [Show the red truck.]
3. [Show the blue apple.]
4. [Show the blue bananas.]

**42) Forwards digit span:**

*Let's play a game. I will tell you some numbers and you will repeat them in the same order.*

*Let us try an example. The numbers are 4...2 [show each number with your hands]. They are 4...2. Can you repeat them?*

[If the child answered incorrectly.] *The answer is 4...2*

[If the child answered correctly.] *Very good!*

*Now let us try another. 6...1...3 [show each number with your hands]. They are 6...1...3. Can you repeat them?*

[If the child answered incorrectly.] *The answer is 6...1...3.*

[If the child answered correctly.] *Good! Now, let's start playing the game.*

1. 1...6 [repeat these numbers twice, showing them with your hands].
  - a. Answer provided by the child: [Write the answer provided by the child. If the child provided more than two alpha-numeric characters, write the first two provided by the child.]
    - i. First number provided by the child: \_\_\_\_\_
    - ii. Second number provided by the child: \_\_\_\_\_
  - b. Don't know
  - c. Child uncooperative
2. 5...2...8 [repeat these numbers twice, showing them with your hands].
  - a. Answer provided by the child: [Write the answer provided by the child. If the child provided more than three alpha-numeric characters, write the first three provided by the child.]
    - i. First number provided by the child: \_\_\_\_\_
    - ii. Second number provided by the child: \_\_\_\_\_
    - iii. Third number provided by the child: \_\_\_\_\_
  - b. Don't know
  - c. Child uncooperative
3. 2...3...1...4 [repeat these numbers twice, showing them with your hands].
  - a. Answer provided by the child: [Write the answer provided by the child. If the child provided more than four alpha-numeric characters, write the first four provided by the child.]
    - i. First number provided by the child: \_\_\_\_\_
    - ii. Second number provided by the child: \_\_\_\_\_
    - iii. Third number provided by the child: \_\_\_\_\_
    - iv. Fourth number provided by the child: \_\_\_\_\_
  - b. Don't know

- c. Child uncooperative

43) **Ordered object recognition:**

*Now let's play a different game.*

*Before we begin, tell me what this is [Point to each object on the example slide.]*  
[If the child does not know an image, or identifies it incorrectly, correct him/her.]

[If the child identifies the image correctly.] *Very good!*

*Now, I will tell you some words and you will point to the pictures that represent those words IN THE SAME ORDER.*

*Let's try an example. "Cow-House". Can you point to these pictures in the same order?*

[If the child answered correctly.] *Good! Now, let's start playing the game.*

[If the child answered incorrectly.] *The answer is "Cow-House".*

*Let's try another one. "Hand-Flower". Can you point to these pictures in the same order?*

[If the child answered correctly.] *Good! Now, let's start playing the game.*

[If the child answered incorrectly.] *The answer is "Hand-Flower".*

1. [Say "Tree-Cow".]

2. [Say "Fish-Ball-Hand".]

3. [Say "Fish-Hand-Tree-Ball".]

4. [Say "Flower-House-Cow-Eye".]

44) **Stroop white-black test:**

*Now let's play another game. Do you prefer saying things in English or Tamil?*

[If the child says "English", use the English words for "white" and "black".]

[If the child says "Tamil", use the Tamil words for "white" and "black".]

*I will show you one of two cards: a white or a black card. If I show you the white card [point to the white card] you should say "black". If I show you the black card [point to the black card], you should say "white".*

*Let's try an example. [Show the black card.]*

[If the child says "white".] *Very good!*

[If the child says "black".] *The answer is "white".*

*Let's try another one. [Show the white card.]*

[If the child says "black".] *Good! Now, let's start playing the game.*

[If the child says "white".] *The answer is "black".*

1. [Show the white card.]

- a. Child says "white"

- b. Child says "black"

- c. Child says "I don't know" or does not respond.

- d. Child provided another response.

- e. Child uncooperative

2. [Show the white card.]

- a. Child says "white"

- b. Child says "black"

- c. Child says "I don't know" or does not respond.

- d. Child provided another response.

- e. Child uncooperative

3. [Show the black card.]
  - a. Child says “white”
  - b. Child says “black”
  - c. Child says “I don’t know” or does not respond.
  - d. Child provided another response.
  - e. Child uncooperative
  
4. [Show the white card.]
  - a. Child says “white”
  - b. Child says “black”
  - c. Child says “I don’t know” or does not respond.
  - d. Child provided another response.
  - e. Child uncooperative
  
5. [Show the black card.]
  - a. Child says “white”
  - b. Child says “black”
  - c. Child says “I don’t know” or does not respond.
  - d. Child provided another response.
  - e. Child uncooperative

## **EARLY NUMERACY SKILLS**

### **45) Verbal counting:**

*Now, can you show me how high you can count, starting at 1?*

[If child reaches 30, stop him/her.] *Good!*

[If child stops or makes a mistake and does not self-correct.] *Thank you!*

*That’s it.*

1. Child counts accurately [*Indicate if the child counted numbers without making any mistakes (e.g., skipping numbers).*]
  - a. Yes
  - b. No
  - c. Child says “I don’t know” or does not start counting.
  - d. Child uncooperative
  
2. **Highest number stated** [*Include the highest number mentioned by the child.*]

**Commented [A13]:** Skip 45.2 and 45.3 if option c or d are selected above.

3. Stop rule used [*Select “yes” if you stopped the child.*]
  - a. Yes
  - b. No

### **46) Producing a set:**

[Display 10 counters in front of the child.] *Let’s play another game. Here are some counters. I will ask you for a number of counters and you will give them to me.*

*Let’s try an example. Can you give me 1 counter?*

[Child counts correctly]. *Very good!*

[Child counts incorrectly]. *Show the child the correct number of counters.*

*Let’s try another example. Can you give me 1 counter?*

[Child counts correctly]. *Very good!*

[Child counts incorrectly]. *Show the child the correct number of counters.*

1. *[Can you give me 3 counters?]*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not give any counters.
  - d. Child uncooperative
2. *Can you give me 6 counters?*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not give any counters.
  - d. Child uncooperative
3. *Can you give me 8 counters?*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not give any counters.
  - d. Child uncooperative

**Commented [A14]:** Skip to 47 if the answer is b, c or d for 46.1  
or 46.2

**47) Number identification:**

*Now I’ll show you some numbers and you will tell me what they are. It’s okay if you don’t know all of them. It’s also okay if you say them in Tamil or English.*

1. *[Show the number 2.]*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.
  - d. Child uncooperative
2. *[Show the number 7.]*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.
  - d. Child uncooperative
3. *[Show the number 10.]*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.
  - d. Child uncooperative
4. *[Show the number 8.]*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.
  - d. Child uncooperative
5. *[Show the number 5.]*
  - a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.

- d. Child uncooperative

## **EARLY LITERACY SKILLS**

### **48) Letter name knowledge:**

*Now I'll show you some letters and you will tell me what they are. It's okay if you don't know all of them.*

1. [Show the letter **Q**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative
  
2. [Show the letter **Q**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative
  
3. [Show the letter **F**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative
  
4. [Show the letter **Q**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative
  
5. [Show the letter **Q**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative
  
6. [Show the letter **Q**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative
  
7. [Show the letter **Q**]
  - a. Correct
  - b. Incorrect
  - c. Child says "I don't know" or does not respond.
  - d. Child uncooperative

**Commented [A15]:** If the enumerator selects Q48.1.a or Q48.2.a or Q48.3.a or Q48.4.a or Q48.5.a, continue. Else skip to Part 5.

8. [Show the letter Ӯ]
- a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.
  - d. Child uncooperative

9. [Show the letter Ӯ]
- a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond.
  - d. Child uncooperative

10. [Show the letter Ӯ]
- a. Correct
  - b. Incorrect
  - c. Child says “I don’t know” or does not respond
  - d. Child uncooperative

## **PART 5 – SUPERVISION**

49) Was a field supervisor present at the AWC during the administration of this questionnaire?

- 1. Yes
- 2. No

50) Enter the field supervisor’s code below [Ask your field supervisor]:

\_\_\_\_\_

**Commented [A16]:** This is a conditional question. Show it if the answer to Q49 is “1” Yes.