Report of Infant Complementary Feeding Practices

Hung Yen Province, An Thi District
October 2005

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Section 1: Survey Overview

Purpose: To explore infant and complementary feeding practices in Vietnam, especially the use of an infant pot in children aged 6-24 months.

Participants: In-depth interviews were conducted with mothers of infants aged 6-36 months. In total, 9 interviews were conducted in Oct 2005. Data from these interviews were combined and analyzed with an additional 8 interviews conducted in late Aug 2005, using the same questions.

Materials: Measuring tape, digital camera.

Questionnaire: See Appendix 1

Section 2: Survey Results

2.1 Age of Infants

Age of child

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10.0	1	5.9	5.9	5.9
	10.5	1	5.9	5.9	11.8
	12.0	1	5.9	5.9	17.6
	13.0	2	11.8	11.8	29.4
	13.5	1	5.9	5.9	35.3
	17.0	1	5.9	5.9	41.2
	18.0	1	5.9	5.9	47.1
	20.0	1	5.9	5.9	52.9
	21.0	1	5.9	5.9	58.8
	23.0	1	5.9	5.9	64.7
	24.0	3	17.6	17.6	82.4
	25.0	1	5.9	5.9	88.2
	27.0	1	5.9	5.9	94.1
	36.0	1	5.9	5.9	100.0
	Total	17	100.0	100.0	

Comment: Mothers whose children were 10 – 36 months were selected for interviewing.

2.2 Infant Feeding Practices

1. In general, what type of food does your child eat now? (Multiple responses allowed)

	YES
▪ Breast milk	11.8% (n=2)
▪ Formula milk	5.9% (n=1)
▪ Rice powder	17.6% (n=3)
▪ Rice porridge	76.5% (n=13)
▪ Other	76.5% (n=13)
f. Please specify:	rice and noodles

Comment: Rice powder and rice porridge are the two main meals cooked in an infant pot. Also at other times, rice and noodles will be cooked in the infant pot.

2. At what age, did you start feeding your baby with supplementary/solid food (such as rice powder)?

__ __ months Mean: 4.6 months (n=17) ; Min: 1 month (n=1); Max: 7 months (n=1)

Age start eating rice powder

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	5.9	5.9	5.9
	3.00	1	5.9	5.9	11.8
	3.50	1	5.9	5.9	17.6
	4.00	3	17.6	17.6	35.3
	5.00	8	47.1	47.1	82.4
	6.00	2	11.8	11.8	94.1
	7.00	1	5.9	5.9	100.0
	Total	17	100.0	100.0	

Comment: On average, mothers began to feed their children complementary/solid food from 4 to 5 months of age.

3. At what age [of your baby], did you start feeding her/him rice porridge?

__ __ months Mean: 9.5 months (n=14); Min: 6 month (n=2); Max: 17 months (n=1)

Age start eating rice porridge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6.00	2	11.8	14.3	14.3
	7.00	2	11.8	14.3	28.6
	8.00	4	23.5	28.6	57.1
	9.00	1	5.9	7.1	64.3
	12.00	3	17.6	21.4	85.7
	13.00	1	5.9	7.1	92.9
	17.00	1	5.9	7.1	100.0
	Total	14	82.4	100.0	
Missing	System	3	17.6		
Total		17	100.0		

Comment: On average rice porridge, a common food cooked with an infant pot, is introduced at 9.5 months. The length of duration the child would be given rice porridge is varied but typically it is fed to the child for an average of 12 to 16 months. Over time, the frequency of feeding rice porridge will decrease as the child gets older and he/she begins to eat from the family pot or table food.

4. Yesterday, what type of food did you give your baby to eat? How many times did you give them that food? (Ask for each type of meal given).

The foods given to children to eat were quite varied by household. However, the main foods are as follows:

- Rice noodle--which is typically eaten for breakfast and as supplementary "snacks" eaten between two main meals
- Rice porridge with pork meat/egg/ broth/fish/pork rib/salted shredded meat, rice, rice powder—these are usually served as main dishes
- Fish soup, vegetable, chicken meat, pork meat, egg are the main type of food which is eat with the rice. These are the main food for the child who move from eating the rice porridge to rice.
- Breast milk, biscuits, fresh/formula milk, and fruit are served as supplementary also.

The number of each type of food given to the child varies among household and age of the child. Generally, the child is fed 3 main meals per day and is fed with multiple supplementary foods throughout the day, such as biscuits, fresh/formula milk, and fruit.

5. Can you explain how you prepared that food? For example, explain each step in the preparation. (Ask for foods which are cooked only. Ask specifically for time of cooking)

Cooking methods for preparing rice powder and porridge is similar; however, the cooking time for porridge is usually 10-15 minutes longer than rice powder. Both of these foods are typically stewed with bone, pork meat, chicken meat, fish, egg, crab. In general, the most common additions to porridge and rice powder are bones and pork meat.

Typically, if meat is being added it will be diced into small pieces and added directly to the pot. At times, households will stir-fry the meat with fish sauce, salt, pork fat, and/or vegetable oil in a separate pan prior to adding to the infant pot, especially if the meat is being added to rice powder. In general, if meat is being added, the total cooking time will increase by 10-15 minutes.

If fish or shrimp is being added, it will be boiled until done (around 15 minutes), diced, and added to the pot.

If using pork bones, the bones will be stewed for 20-30 minutes to make a broth from the bones to be added to the rice powder and rice porridge.

For some households, the family pot (medium size) is used to boil the meat and bones. In other households, mothers will use the infant pot to boil meat and bones. It is important to note that in a few households rice porridge was cooked in an electronic rice cooker. This is a new trend for the rural families.

Comment: It was noted in this round of interviews that 6 of the 9 households used two types of pots to cook the infant complementary food—one pot for rice powder and another pot for rice porridge. In general, rice powder, introduced at 4 to 5 months is much smaller than the pot used for rice porridge. The pot used for rice porridge was a little bit bigger. For households who only had one infant pot, they choose the larger size pot suitable for making rice porridge. Figure 1 depicts the difference in the two sizes of the infant pot. The smaller pot is used primarily for the rice powder whereas the large pot is commonly used for rice porridge.

Figure 1: Pots for rice powder and rice porridge

6. What is the average length of cooking time for cooking rice powder and rice porridge?
__ __ __ minutes

For rice powder: Mean: 14.7 minutes; Min: 7 minutes; Max: 25 minutes
For rice porridge: Mean: 60 minutes; Min: 30 minutes; Max: 120 minutes

Comment: For both rice powder and rice porridge, the average cooking time includes the time needed to cook the meat/fish/bone.

2.3 Use of Infant Pot

1. Do you currently use or have you ever used a separate infant pot to cook food for your baby?
    a. Yes, currently used 64.7% (n=11)
    b. Yes, but no longer used 35.3% (n=6)

Comment: All households surveyed had used or are currently using an infant pot. Of the 6 households not currently using the infant pot, the pot remained in the house and was occasionally being used for cooking other solid foods for the baby such as stir-fry meat, eggs, and/or noodles.

2. How many months was your baby when you started using the separate infant pot to cook food for her/him?

_ _ months Mean: 4.3 months (n=9) ; Min: 1 month (n=1); Max: 7 months (n=1)

Comment: All households started using a separate infant pot as soon as they began to feed their child rice powder. Rice powder is always fed in the initial stage of infant complementary feeding, then rice porridge is introduced afterwards, and eventually rice from the family pot will be served.

3. Do you/did you only use that infant pot exclusively for your baby, or do you use other pots from the household as well when you cook for your baby?

a.	Only infant pot	76.5% (n=13)
b.	Other pots from household	23.5% (n=4)

Comment: At times, broths or other foods were cooked in a family pot and then served to the child.

4. What foods do you/did you cook in this infant pot? (Multiple responses)

		YES
a.	Milk	0% (n=0)
b.	Rice powder	76.5% (n=13)
c.	Rice porridge	52.9% (n=9)
d.	Stew bones	23.5% (n=4)
e.	Other	29.4% (n=5)
f.	Please specify:_____	

Comment: Note that the infant pot is used for rice powder, rice porridge and to stew bones and to boil fish and/or meat.

5. How often do you/did you use the infant pot?

		YES
a.	All meals in a day	82.4% (n=14)
b.	Most of the meals in a day	17.6% (n=3)
c.	One meal per day	0% (n=0)

6. At what age will/did you plan to stop using the pot?

_ _ months	Mean: 15.4 months (n=8)
☐ Don't Know	35.3% (n=6)

Comment: The average age of the infant when mothers ceased using the infant pot is approximately at15.4 months. If mothers begin using the infant pot at 4.6 months and cease when the child is aged 15.4 than the average duration of time for the infant pot usage per child is 10.8 months. Households who were still using the pot found it difficult to know when the child will stop using the pot and often answered "when the child stops eating food [rice porridge/rice powder] cooked in the pot." Some households whose infant stopped eating rice powder or porridge still continued to use the infant pot to cook other foods for the child such as eggs, meat, noodles.

7. Did you buy your pot or did someone give it to you?

			YES
a.	I bought	☐	82.4% (n=14)
b.	Was given	☐ → skip to question 18	17.6% (n=3)

Comment: In the cases where the mother was given an infant pot (n=3), it was bought for her by her mother or the grandmother of the baby.

8. How much did it cost?

_ _ _. _ _ _VND Mean: 11,900 (n=16) Min: 3,000 VND Max: 25,000VND

Comment: In this round of data collection, we came across 2 households that had purchased the infant 8 and 9 years ago when the prices of the pots were much less expensive. In these households, the pot had indeed been passed down and used formerly for other children in the family. Thus, this data has skewed the current market price for an infant pot.

Section 3: Conclusions and Recommendations

The purpose of this survey was to better understand infant and complementary feeding practices in Vietnam especially the use of an infant pot in children aged 6-24 months.

From this survey, we confirmed that that the purchase and use of an infant pot is a common practice in Vietnam for the introduction of weaning foods. All mothers or the infant's grandmothers purchased their own pot and spent an average of VND 11,900 (or US$0.76) on the pot for their infant. In general, infant pots are used to cook two types of food: rice powder and rice porridge. Rice powder is typically given to younger children before more solid food can be introduced and is typically introduced at 6-8 months. Rice porridge is typically introduced at 9.5 months. In general, as the child grows, they will be graduated from rice powder to rice porridge and then to table food or will then begin to eat from the family pot.

In this second round of data collection, it was noted that some households had two different infant pots—a smaller pot for rice powder and a slightly larger pot for rice porridge. Households that only had one pot, often had the larger variety good for making rice porridge. Thus, if this study can only make one pot, it is recommended that the pot design be suitable for making rice porridge. Indeed, this study also confirmed that rice porridge is cooked for a longer duration in the infant pot than rice powder. The total cooking time for rice powder was only 14.7 minutes versus 60 minutes for rice porridge. Thus, it seems appropriate to recommend and target the infant pot design for making rice porridge rather than rice powder, which means designing a pot slightly larger than that for rice powder. Mock-up pot 2 in the previous study meets these requirements.

For the age of children to target for the Phase II efficacy study, we want to target our population on infants who use an infant pot and also who are commonly consuming rice powder and/or rice porridge, we will need to target the population from age 6-18 months as this is the period where most children will be eating rice porridge. If the Phase II study is to run for 6 months, infants at baseline need to be 6-9 months.

In the previous study, we were concerned that the mean duration of time the pot is used is quite short—only 5.1 months (n=3, August 2005 data). However, with the expanded sample size in this study (n=8, October 2005 data), shows that on average mothers start with the infant pot at 4.6 months and cease using the pot when the child is 15.4 months. Thus, the average duration of time for the infant pot usage per child is 10.8 months—much longer than previously thought and a potentially sufficient amount of time for an iron pot to have biological impact on iron status.

Regarding the size and shape of the pot, aluminum was used by all households and seems to be acceptable by all households. Regarding the size and shape, there are two common types most used and that seem to be acceptable—Mock Up Pot 2 and Mock Up Pot 3. However, since Mock Up Pot 3 is smaller and used primarily for rice powder, Mock Up Pot 3 is no longer recommended because it may be deemed by some households as too small for rice porridge.

To avoid problems with rusting and thinness with the blue steel pots encountered in Phase I, it is suggested that Phase II use a pot that has blue steel inside and aluminum outside.