Knowledge, Attitudes and Practices of Salt Consumers in Phnom Penh and Surrounding Areas

February 8, 1999
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<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKI</td>
<td>Helen Keller International</td>
</tr>
<tr>
<td>IDD</td>
<td>Iodine Deficiency Disorders</td>
</tr>
<tr>
<td>MOH/ NMCHC</td>
<td>Ministry of Health/National Maternal and Child Health Center</td>
</tr>
<tr>
<td>RCG</td>
<td>Royal Government of Cambodia</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>USI</td>
<td>Universal Salt Iodination</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

This research would not have been possible without the help and cooperation of the respondents who patiently and generously gave their time to answer questions. For providing support to the survey team, we would also like to thank all local authorities who informed community members and provided guidance to the team.

Also of great importance to the success of the study were the interviewers from the Ministries of Planning, Health, Rural Development, Information, and Industry, Mines and Energy. They took great care in administering the questionnaire and were ready to work at all odd hours to try to locate respondents. We thank them for their hard work and dedication.

Helen Keller International (HC) would like to extend special thanks to those who provided most valuable feedback on the initial draft questionnaire-- Mr. Touch Dara of the Ministry of Health/National Maternal and Child Health Center, Ms. Inga Oleksy of Partners for Development, Dr. Markus Rimon of the World Health Organization, Dr. Susan Burger of the HKI/NY office and Dr. Barbara Underwood who was doing a constancy for WHO in Cambodia at the time the questionnaire was first drafted.

Finally, this study would not have been possible without the generous support of UNICEF and WHO for materials, the Ministry of Health/Department of Nutrition for salt iodination mixing machines and overall program support from the United States Agency for International Development (USAID) under Grant No. 442-G-00-95-0515-00.
EXECUTIVE SUMMARY

This study on knowledge, attitudes and practices of salt consumers was conducted in collaboration with the Ministries of Planning, Health, Rural Development, Information, and Industry, Mines and Energy. The overall purpose of the study was to ascertain and describe consumers' current knowledge, attitudes, and practices regarding IDD and iodized salt use. The information will be used to guide the preparation of this pilot-implementation, monitoring and evaluation, and education. The study was conducted between July 12-15, 1998. One hundred and twenty five (125) were interviewed.

Summary of key findings

**Current Practices Regarding Salt Use**
Most of those interviewed use refined salt which is mostly used during cooking or directly on food (after cooked). The next most popular use of refined salt was for food preservation or pickling. The main reasons for using refined salt is that it is "already refined" and easy to dissolve. Also important to note is that all the refined salt purchased was in plastic bags and the cost of salt per kilogram ranged from 300-600 Riels. Most people purchase salt from the market while some purchase from cart owners.

**Knowledge About Iodine Deficiency**
Only a few respondents knew what iodine is and of those who said they knew what it is, none were able to explain what it is. However, many of these same people mentioned that the dangers of iodine deficiency include goiter. All respondents had seen people with goiter and most did not know the cause of it. When asked about treatment, most said that surgery was the way to treat. The majority of respondents did not know how goiter can be prevented.

**Knowledge, Attitudes and Practices Regarding Iodized Salt**
The majority of respondents had not heard of iodized salt. When these people were told the importance of iodized salt, most said they would buy and use it. They also thought that the best way to make people believe that iodized salt is good for their family's health was to promote verbally from person-to-person. It was found that most people want to know about quality before purchasing salt and also the usefulness and importance. Most people will believe anyone who comes to tell them about iodized salt; doctors and NGO staff were specifically mentioned.

**Factors Influencing Iodized Salt Purchase**
One factor believed to influence purchase of iodized salt was the amount packaged. Most people prefer packages of 0.5 and 1 kilograms weight. It was also thought that health/nutrition messages should be printed on the packages in order to help encourage people to purchase iodized salt. A clear logo was also mentioned.

**Suggestions and Ideas to Manage Factors Influencing Iodized Salt Purchase and Consumption**
The most popular method of encouraging people to buy and use iodized salt was believed to be "word of mouth" or "people-to-people". Television and radio were considered the next best method. Most of those interviewed are not influenced by others in their decision to buy and purchase iodized salt. This is probably since most of those
interviewed were housewives who are mostly responsible for buying and purchasing for their households. Some mentioned housewives help make decisions regarding purchase and use of iodized salt and these were most likely male respondents. TV, promotion by word of mouth and at the community level were thought to be important in making people understand the importance of iodized salt.

People Who Influence Family Purchase and Consumption of Iodized Salt
Very few people are influenced by anyone about purchase and consumption of iodized salt. Those who are, are only influenced by other family members; no one is influenced by people outside their family. As mentioned previously, most of those interviewed (housewives) are responsible for purchasing food for their family and most do not have to ask or tell anyone in their family if they decide to purchase iodized salt.

IEC and Salt Marketing Materials Development
The methods thought best to make people believe iodized salt is good for their health were advertising campaigns using radio and TV, community training/meetings and word of mouth. Most interviewed thought that housewives should be educated about iodized salt. Other groups included local authorities, "knowledgeable" persons and doctors. Messages thought to be important to make people want to use iodized salt were: good for health, good quality, and prevents goiter. Most people interviewed listen to radio, watch TV and can read.
I. BACKGROUND

Nearly one-third of the Earth's population live in areas of iodine deficiency. Failure to have adequate iodine can result in iodine deficiency disorders (IDD). Consequences of IDD include: irreversible mental retardation, other defects in development of the nervous system, goiter, physical sluggishness, growth retardation, reproductive failure, increased childhood mortality, and socioeconomic compromise. The most devastating of these consequences are on the developing human brain. Iodine deficiency is the world's major cause of preventable mental retardation.

In Cambodia, IDD is considered a serious public health problem. The gross goiter rate from a 1997 national goiter prevalence survey in the 8-12 year age group, was found to be 17% with some areas having prevalence rates as high as 45%. It is estimated that there are nearly 1.3 million individuals at risk of iodine deficiency disorders.

There is great potential to address the problem of IDD in Cambodia through the long term measure of universal salt iodination (USI). USI is effective, inexpensive and relies on available marketing systems for distribution. UNICEF, in collaboration with the Royal Government of Cambodia (RCG), and with technical assistance from Helen Keller International, have initiated an effort to iodize salt in Kampot, where one hundred percent of salt production in Cambodia occurs. Given that Kampot salt will most likely not be refined, and that refined salt is white and fine grain-- most appropriate for table use and iodination, it is important that salt boilers be included in the country's USI program.

Salt boilers are operational in the provinces of Kampot, Takeo, Battambang, Kampong Speu and Phnom Penh. Given that production centers are all within the community to which they serve, HKI will focus initial efforts of salt iodination in the Phnom Penh area where there are thirteen salt boilers and where iodized salt has the potential of reaching approximately 9% of the population.

In an effort to test the feasibility of iodizing and marketing salt from salt boilers, two of four interested boilers were selected with whom a small-scale pilot study will be conducted. As a first part to the pilot, a salt production, distribution and marketing study was conducted in June 1998. The overall purpose of the study was to examine current practices of salt production and distribution of two salt boilers who will be involved in the pilot feasibility study, and to find out distribution and selling practices of those who buy salt from these boilers. The information was used to guide the development of this KAP survey and will also be used to guide the preparation of this pilot-implementation, monitoring and evaluation, and education.

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1 Salt iodination for the Elimination of Iodine Deficiency, ICCIDD, 1995.
2 Results obtained from MOH/NMCHC.
4 They may also be in other provinces that HKI is not currently aware of.
II. STUDY AIMS AND OBJECTIVES

The aim of the study was to ascertain and describe consumers' current knowledge, attitudes, and practices regarding IDD and iodized salt use. The research findings will be used to guide the development of IEC and iodized salt marketing materials. The materials will be used to provide information and awareness of the importance of iodized salt and to promote and encourage consumers to buy and use iodized salt.

The specific objectives of the study were:

1. To examine consumers' current knowledge, attitudes, and practices regarding IDD and iodized salt use.

2. To identify sources of information, advice, and education concerning IDD and iodized salt that are currently available to consumers.

3. To find out factors that may influence consumers' willingness to purchase and use iodized salt.

4. To gather suggestions and ideas of how to manage those factors in order to enhance or encourage consumers to purchase and use iodized salt.

5. To identify people who influence household decision making in food purchasing and consuming.

6. To gather suggestions on how to promote iodized salt, which include educational methods, preferred media channels, appropriate audiences, media messages, etc.
III. METHODOLOGY

III.A. Location

The study was conducted in neighborhoods surrounding four market places in three districts - Meancheay and Tultumpong in Phnom Penh and Kien Svay in Kandal Province. These were selected based on findings from the HKI Salt Marketing and Distribution Study. That study showed which markets carry salt from the two salt boilers with whom HKI is working.

III.B. Study Design

The study used both descriptive and exploratory research, using both quantitative and qualitative methods but with more emphasize on qualitative methods. The research seeks to understand current knowledge, attitudes, and practices of consumers regarding IDD and iodized salt, in which one to one in-depth-interviews is appropriate to examine individual knowledge, attitudes and practices.

III.C. Sample Selection

Four market areas in Phnom Penh and Kandal were randomly selected from a list of all market places that carry salt from two Phnom Penh salt boilers. Once these were selected, five interviewer teams went to the center of each market and each team walked in a different direction until they reached the first household. The first household was interviewed, and every third household. Each team conducted twenty five interviews, six each during three days and seven each on the last day. The primary respondent was the wife of a male headed household or woman in the case of a female headed household.

III.D. Development and Protesting of Study Tools

The initial step in preparing the survey instrument was to gather ideas from various sources to draft the questionnaire (in English) using suggestions from HKI staff, existing materials, and previous research. The HKI IDD Project Officer with the assistance of other HKI staff developed a draft questionnaire and observation checklist. This was distributed to various individuals working on IDD in Cambodia. Once feedback was obtained, the questionnaire was translated into Khmer, protested and finalized. The final version in Khmer and English can be found in Annex 1.

III.E. Data Collection

Data collection took place between July 12-15, 1998. Five teams of two people each were formed. Each team interviewed six persons during the first three days and seven households the fourth day. A total of 125 persons were interviewed.

6 The survey team decided not to ask question 8.
III.F. Data Analysis

The completed questionnaires were collected by the HKI IDD Officer. Responses were tabulated manually and frequencies were calculated.

III.G. Constraints

Because the survey was conducted just before national elections, there was some mistrust on the part of the respondents. This made it a little difficult, especially in those communities where local authorities had not informed communities in advance.

Translating the questionnaire from Khmer to English and English to Khmer was difficult; many words do not correspond directly. As such, words were chosen with the closest meaning rather than those most technically appropriate. Some of the questions may not have been translated appropriately resulting in some questions appearing to be repetitive.

The survey team decided not to ask question 8 as it was believed that consumption per person per week could be calculated from questions 4 and 7. However, this is not the case as salt purchased is used for things other than human consumption.
IV. RESULTS

Following are the results from interviewing 125 salt consumers about knowledge, attitudes and practices pertaining to IDD and use of iodized salt.

IV.A. Background

The average respondent age was 42 years. Eighty six percent (86%) of respondents were women. An average of 6.8 family members eat together and 1.7 members are children under twelve years of age. Fifteen percent (15%) of households were found to be headed by women.

IV.B. Current Practices Regarding Salt Use

Table 1 shows the type of salt used by families. Fifty-six percent (56%) of respondents mentioned that their family usually uses refined salt, 41% usually use refined and coarse grade I and/or II and 3% usually only use coarse grade I (Figure 1).

Table 1: Type of Salt Family Usually Uses

<table>
<thead>
<tr>
<th>Salt Type</th>
<th>Usage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refined</td>
<td>70</td>
<td>56%</td>
</tr>
<tr>
<td>Refined and coarse grade I and/or II</td>
<td>51</td>
<td>41%</td>
</tr>
<tr>
<td>Coarse grade I</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>125</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 2 shows the major use of each kind of salt. Fifty-four percent (54%) of refined salt is used for cooking and 40% for food preservation/pickling, the remainder is used directly on food, for animals or other reasons. The largest percentage of coarse salt is also used for cooking and food preservation/pickling, 50% and 39% respectively while the reminder is used directly on food, for animals or other purposes.
### Table 2: Type of Salt by Use

<table>
<thead>
<tr>
<th></th>
<th>Cooking</th>
<th>Preservation</th>
<th>Directly on Food</th>
<th>Anilas</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refined</td>
<td>102</td>
<td>76</td>
<td>10</td>
<td>1</td>
<td>5</td>
<td>190</td>
</tr>
<tr>
<td>%</td>
<td>54%</td>
<td>40%</td>
<td>5%</td>
<td>1%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>Coarse Grade I or II</td>
<td>33</td>
<td>26</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>66</td>
</tr>
<tr>
<td>%</td>
<td>50%</td>
<td>39%</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
<td>102</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>256</td>
</tr>
<tr>
<td>%</td>
<td>53%</td>
<td>40%</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The main reasons for using refined salt is that it is "already refined", easy to dissolve and good to put in soup. The main reasons for using coarse salt were that it is "saltier" than refined salt and easy to dissolve.

Seventy four percent (74%) of the respondents usually buy salt at the market, 25% from a cart and 6% from other locations. The amount of refined salt usually purchased at a given time averages to 3.5kg and the amount of coarse I and/or II was 1.1 kg. All the refined salt purchased was packed in plastic bags; most coarse salt was in plastic bags but some was also in jute sacks. The cost per kilogram of refined salt ranges from 300 to 600 Riels/kg with the 300 Riels/kg being a price if one purchases 25 kilograms at a given time. The price of coarse salt purchased ranged from 300 to 500 Riels per kilogram. Salt is usually purchased every one to two months with the range being three days to one year.

Table 3 shows when salt is usually added to food. Eighty five percent (85%) respondents mentioned during cooking, 12% add it after and 2% before cooking; 1% add it some other time.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before cooking</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>During cooking</td>
<td>106</td>
<td>85%</td>
</tr>
<tr>
<td>After cooking</td>
<td>15</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>125</td>
<td>100%</td>
</tr>
</tbody>
</table>

The most common method of storing salt is by using a glass jar, 43% use this method while 31% use a plastic jar, 10% a clay jar, 9% plastic bag and 7% some other means. Some containers were covered, others were not.

### IV.C. Knowledge About Iodine Deficiency

Figure 2 shows that 94% of respondents did not know what iodine is. Of the seven who said they knew what it is, none were able to explain what it is either because they forgot what iodine is or they did not know how to explain. Although they couldn't explain what iodine is, six of the seven could explain at least one reason why iodine was important.
Those mentioned include: for sustenance of the human body, to prevent goiter, to make children clever, and to help the thyroid gland.

The following responses are from those who said they know what iodine is (n=7). When asked about the dangers of iodine deficiency, 71% mentioned "goiter", 14% that a baby is born without knowing anything, and the remainder said they did not know. Twenty nine percent (29%) mentioned that they thought women were most at risk for iodine deficiency, 14% mentioned people over 30 years of age, 14% elderly, 14% poor people and the rest did not know. When asked where iodine can be found, 57% mentioned seafood, 14% said salt, 14% from dark green leafy vegetables and 29% did not know. Seventy-one percent (71%) did not know how IDD can be prevented, the remainder thought through eating seafood.

When asked if they had ever seen anyone with goiter, all (n-125) respondents said that they had. Twelve percent (12%) mentioned that at least one person in their family has goiter.

Figure 3 shows what people thought are the causes of goiter. Seventy-two percent (72%) of respondents mentioned that they do not know the cause of goiter. Four percent (4%) responded that it was caused from iodine deficiency, 1% from eating salt from other countries and 23% mentioned other factors such as from birth, transmission of a virus from water, traditional massage, speaking loudly and others.
Table 4 shows the people who respondents thought usually have goiter. Ninety-four percent (94%) mentioned women, 2% anyone, 3% men and women, and about 1% each mentioned school girls and that they did not know.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>117</td>
<td>94%</td>
</tr>
<tr>
<td>Anyone</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Men and women</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>School girls</td>
<td>1</td>
<td>0.8%</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>0.8%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>125</td>
<td>100%</td>
</tr>
</tbody>
</table>

The breakdown of women was as follows: 43% women, 9% women over 30 years of age, 3% women of middle age, 44% elderly women, and 0.8% each single women and weak/thin women.

When asked the treatment for goiter, 60% did not know, 34% mentioned surgery, 3% both surgery and traditional medicine and the remaining 3% mentioned other treatment (Table 5).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sure</td>
<td>42</td>
<td>34%</td>
</tr>
<tr>
<td>Sure + traditional medicine</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Don't know</td>
<td>75</td>
<td>60%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>125</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 6 shows how respondents thought goiter can be prevented. Ninety five (95%) percent did not know, 2% said by eating iodized salt, 1% by eating seafood or iodized salt and 2% o other (Figure 4).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat iodized salt</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Eat seafood or iodized salt</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Don't know</td>
<td>119</td>
<td>95%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>125</td>
<td>100%</td>
</tr>
</tbody>
</table>
IV.D. Knowledge, Attitudes, and Practices Regarding Iodized Salt

When asked if they have ever heard of iodized salt, 89% responded that they had not, only 7% had and the rest did not know if they had heard of iodized salt.

Of those who had heard of iodized salt (n=9), one person heard from "The National Program", three had heard from a relative, one each heard from Laos and Vietnam, two heard from other people who buy it at Lucky supermarket and one person did not know.

When these same people were asked about the usefulness of iodized salt, 44% said it prevents goiter, 11% that it protects health, prevents goiter and makes people clever, 11% that there are vitamins in it, 11% that it prevents goiter and helps growth and 11% prevents goiter and makes soup taste good, another 11% did not know (Figure 5).
important for health and it prevents goiter. When asked what will make people believe that iodized salt is good for their health, they mentioned that it will important to:

- say that there are some "vitamins" in it
- say that it helps children's health
- write on the bags of salt that it is salt with iodine, and
- explain to people that iodized salt prevents goiter.

Three out of four purchase iodized salt from the market (two mentioned Lucky Market) and one obtains it from a brother. Two did not know the price per kilo of iodized salt. The other two respondents said it costs 60 cents/kg and 90 cents/0.75kg respectively.

When the importance of iodized salt was mentioned to those who had never heard it or did not know if they had heard (n=116), 96% said they would buy and use it, 2% said they would not and 3% said they did not know. Figure 6 shows what they thought would make people believe that iodized salt is good for their family's health, 50% of all responses were to promote verbally through person-to-person the importance of iodized salt, 9% thought use of TV would be important, 7% mentioned radio, 8% that free samples should be provided for testing, 6% mentioned the promotion of the importance and usefulness of iodized salt, 4% did not know and the remainder mentioned that it is important to mention the quality of salt, advertising, promote importance, usefulness, leaflets, education to community members by NGOs, community and women's affairs.

![Figure 6: What Would Make People Believe That Iodized Salt is Good](image)

When these same people were asked what they would like to know before purchasing and using iodized salt, 29% mentioned they want to know that it is good quality, 15% the

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7 Approximately 2,262 Riels/kg and 3,393 Riels/0.75kg
usefulness and importance of iodized salt,. 10% want to know the taste of iodized salt, 11% the brand name/logo, 4% don’t want to know anything and 7% did not know.

Figure 7 shows that 31% percent of those who had never heard of iodized salt will believe in whoever comes to promote iodized salt, 18% o doctors, 13% NGOs, 9% in health educators, 8% did not know and the remaining mentioned others.

When asked what makes them hesitate or stops them from buying iodized salt, 81% said they do not hesitate, 4% said they want to test first while the rest are not sure, afraid of health effects, and they do not understand about iodized salt.

IV.E. Factors Influencing Salt Purchase

If iodized salt could be packaged into smaller packages, 58% preferred that it be packaged into 1 kg packages, 26% of those interviewed prefer 0.5kg and 1 kg bags and the remaining 16% prefer other (0.2-25kg) (Figure 8).

When asked what they thought should be printed on the package to help encourage people to buy iodized salt, 34% mentioned health/nutrition messages, 23% logo/clear printing,
14% quality/inspection/brand name, 14% mentioned goiter, 5% mentioned other and 10% did not know (Figure 9).

Ninety nine percent (99%) of those interviewed said they would buy iodized salt even if it is more expensive than non-iodized salt. Of these, 3% already use iodized salt. An additional 6% of respondents "changed their mind" since previously asked whether they would buy and use iodized salt. The 1% who responded negatively mentioned that they would wait to see if was true that quality was better; if so, they plan to buy and use it. Those who would purchase iodized salt would do so mainly for purposes of quality and health.

**IV.F. Suggestions and Ideas to Manage Factors Influencing Salt Purchase and Consumption**

Figure 10 shows what respondents thought are the best ways to encourage people to buy and use iodized salt. Fifty percent (50%) mentioned "people-to-people" or word of mouth; the next best method is believed to be TV and radio (13%) followed by giving iodized salt free in the beginning (8%), TV (6%), advertising (6%), and displaying in the market and promoting it there (5%). Six percent did not know and the remaining 6% were other methods.
Table 7 shows the people who are most influential in the purchase and use of iodized salt. It can be seen that most of those interviewed are not influenced by others in their decision to purchase and use iodized salt. Of those who are influenced, the most influential people are housewives, health personnel and NGO staff. It is important to note that 14% of respondents were men who are the ones who most likely responded "housewives" to this question.

Table 7: People Who Help Make Decisions Regarding Purchase and Use of Iodized Salt

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>44</td>
<td>34%</td>
</tr>
<tr>
<td>Housewives</td>
<td>23</td>
<td>18%</td>
</tr>
<tr>
<td>Health personnel</td>
<td>20</td>
<td>15%</td>
</tr>
<tr>
<td>NGOs</td>
<td>19</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>19%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>131</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 11 shows what respondents thought should be done to make people understand the importance of iodized salt and make them want to buy and use it. The most common things mentioned were use of TV, promotion by word of mouth (person-to-person), promotion at the community level and use of radio.
IV.G. People Who Influence Family Purchase and Consumption of Iodized Salt

When asked who knows best about foods in their community 70% mentioned no one, 8% mentioned doctors, 16% said they didn't know and the remaining 6% from reading, neighbors, one self, husband and children (Figure 12).

Of those interviewed, 50% purchase food for their family themselves, 14% said their wives purchase food, 11% mentioned their daughter purchases food and the rest was a combination of wife and mother, self and nephew, sister and others.
Sixty one (61%) percent mentioned that housewives are the ones who usually cook; daughters form 10% of those who usually cook, housewives and daughter or son 8%, mothers 3% and the remaining are other persons such as sisters, mother-in-law and others.

Figure 13 shows who usually makes the decisions on which foods to buy and eat. Seventy one (71%) percent mentioned housewives, 9% daughter, 5% mother, 5% head of the family (men) while the remaining 10% mentioned others such as head of family (woman), person who goes to the market, husband and wife, sister and others.

Sixty seven (67%) percent of those interviewed said that they do not have to ask or tell other family members if they decide to purchase iodized salt, 32% have to ask and the remaining 1% did not know. Those who need to ask will ask other family members, their husband, children, daughter-in-law, wives, mother and other relatives. The reasons for asking others include fear of making a mistake, informing the person who earns money for the household, to exchange ideas, to avoid conflict, person goes to the market every day, and because it is new and the family doesn't know about it.

When asked if there was anyone in their family who may resist iodized salt purchase and use, 98% responded that there was not; the one person who responded yes mentioned that she was afraid that her children would "blame her". When those who responded positively were asked why no one would resist, 46% said they are housewives and they decide for themselves; 17% mentioned because it was good quality, 7% because it helps health, and the remaining, 5% did not know and the remaining 25% gave other reasons such as they understand well about iodized salt, believe in NGOs, they will eat if others do so, and good hygiene among others.

No one outside their family has an influential role in the respondents family's purchase and consumption of iodized salt. Less than half (41%) of people have spoken with their neighbors about kinds of foods they buy and eat. Forty nine percent (49%) usually ask for advice when they have questions or problems regarding food. Sixty two percent (62%) of these people ask doctors for advice; 7% ask their neighbors, and the rest ask
others. Doctors are asked because they are knowledgeable, they treat people, understand food consumption and are health educators.

IV.H. IEC and Salt Marketing Materials Development

Table 8 shows what respondents thought are the best educational ways to make people believe iodized salt is important and essential for their health. Twenty six percent (26%) thought by advertising campaigns using radio and TV, 22% mentioned community training/meetings, 13% thought by using word of mouth.

<p>| Table 8: Best Educational Ways to Make People Believe Iodized Salt is Important |
|---------------------------------|---------------------|-----------------|</p>
<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>WHY</th>
</tr>
</thead>
</table>
| Adverting campaign (including radio and TV) | 42 | 26% | • To inform people about iodized salt  
|    |      | • People want to listen or watch  
|    |      | • Radio can be broadcast long distance  
|    |      | • Messages are spread quickly  
|    |      | • People will believe quickly  |
| Community training/meeting | 35 | 22% | • Messages are given directly and people can listen and understand early  
|    |      | • People can ask questions to educators  
|    |      | • There are lots of people there  
|    |      | • It's the best way to make villagers believe  |
| Word of mouth | 22 | 13% | • This is how people believe most  
|    |      | • It is a fast way to spread information  
|    |      | • Easy to understand  
|    |      | • They can become aware of quality of salt  |
| Doctor | 14 | 9% | • Most people believe doctors about health  
|    |      | • They are knowledgeable people  
|    |      | • They can promote to many people  |
| Educate salt sellers who in turn will educate consumers | 8 | 5% | • Sellers will use first, recognize quality; then can tell other sellers who can tell consumers  |
| School | 5 | 3% | • Children can tell their parents  
|    |      | • School children can promote amongst each other  |
| Local authorities | 3 | 2% | • Message is spread quickly to people  
|    |      | • The oversee community  |
| Educate women's affairs | 1 | 1% | • Women's associations work in community so messages will be spread quickly  |
| Don't know | 24 | 15% |  |
| Other | 8 | 5% |  |
| TOTAL | 162 | 100% |  |
Media thought best to reach people and make them believe most was TV (35%) and radio (28%). The remaining 37% was other media. The other includes leaflet, give iodized salt to people first, posters, newspaper, songs, and others. Reasons given why TV would be a good media channel include: it is spread out everywhere such that everyone watches, most families have TV and everyone can hear. Radio was thought to be good because it is spread out easily and many people listen to radio.

Table 9 shows which groups of people respondents thought should be educated about iodized salt and why. The most common responses were housewives, local authorities, "knowledgeable" persons and doctors.

**Table 9: Groups Which Should be Educated About Iodized Salt**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>%</th>
<th>WHY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewives</td>
<td>55</td>
<td>37%</td>
<td>• They are the buyers, go to the market everyday and cook</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They can promote amongst each other</td>
</tr>
<tr>
<td>Local authorities</td>
<td>12</td>
<td>8%</td>
<td>• They are managers and it is easy for them to call people for education</td>
</tr>
<tr>
<td>&quot;Knowledgeable&quot; persons</td>
<td>11</td>
<td>7%</td>
<td>• They accept new ideas faster than illiterate people</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They understand more</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They can promote iodized salt to other people</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They can afford to buy iodized salt</td>
</tr>
<tr>
<td>Doctors</td>
<td>11</td>
<td>7%</td>
<td>• They give advice to patients</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They should know for health</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They are promoters or educators</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Many people believe doctors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They are knowledgeable</td>
</tr>
<tr>
<td>Teachers</td>
<td>7</td>
<td>5%</td>
<td>• They teach school children</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They are educated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They are knowledgeable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• People believe them</td>
</tr>
<tr>
<td>Daughters</td>
<td>7</td>
<td>5%</td>
<td>• Because they cook</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They go to market</td>
</tr>
<tr>
<td>School children</td>
<td>5</td>
<td>3%</td>
<td>• They can tell to others quickly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They can get knowledge from school</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• They buy foods for eating</td>
</tr>
<tr>
<td>Heads of households</td>
<td>3</td>
<td>2%</td>
<td>• She/he is a buyer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Manages all responsibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Promotes to children</td>
</tr>
<tr>
<td>Other</td>
<td>29</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>8</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>148</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Table 10 shows the messages thought to be the most important in terms of making people understand the importance of iodized salt and make them want to use. Fifteen percent (15%) suggested to include that it is good for one's health, 15% quality, and 11% to prevent goiter (11%). "Other" consist of many messages including brand name/logo, medical sign, usefulness of iodized salt, good taste, disadvantages of non-iodized salt, advantages of iodized salt and others.

<table>
<thead>
<tr>
<th>Message</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>26</td>
<td>15%</td>
</tr>
<tr>
<td>Good health</td>
<td>35</td>
<td>20%</td>
</tr>
<tr>
<td>To prevent goiter</td>
<td>20</td>
<td>11%</td>
</tr>
<tr>
<td>Don't know</td>
<td>25</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>73</td>
<td>41%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>179</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 14 shows that 74% of those interviewed listen to radio, while the remaining 26% do not.

Most people, 52% listen to all radio stations, 13% to No. 103, 11% not a regular station and the remaining listen to other stations. The most common times for listening were reported to be morning and lunch time. Specific hours mentioned were 07:00 to 09:00 and 17:00 to 21:00.

Figure 15 shows that nearly all respondents watch TV (90%). Thirty percent (30%) of the respondents watch channel 3, 25% channel 5, 18% all and 10% Bayan 27 while the rest watch other channels. The most common times to watch were reported to be between 18:00 and 21:00. Others mentioned between 07:00 to 22:00.
Seventy six percent (76%) of the respondents can read (Figure 16). The most common reading documents are the Popular (Brachabrey newspaper) (28%) followed by Rasmey Cambodia (21%), Koh Santepheap newspaper (10%), Maneaksekar newspaper (4%), all kinds (4%). Ten percent mentioned that they do not read anything and the remaining read other materials.

IV.I. Observation

A household observation was conducted to determine kind of salt available in the households, packaging of salt, amount available and how it is stored.

Seventy five percent (75%) of salt found in households was refined, 24% coarse grade I and 1% coarse grade II. Most of the salt seen was 1 kilogram worth; the next most common amount was two kilograms followed by 0.5 kgs and 5 kgs. Seventy one (71) households stored salt in a plate or pot in a cabinet, 21 in the kitchen, 17 stored on a shelf, 11 in a sack on pallet and the remainder other ways. It is unclear in what types of containers those in the kitchen and shelf were made of.
V. DISCUSSION. AND RECOMMENDATIONS

Following is a discussion with key recommendations based on the findings of this study. The information will be used to guide the preparation of this pilot-implementation, monitoring and evaluation, and education.

V. A. Current Practices Regarding Salt Use

Most of those interviewed use refined salt which is mostly used during cooking or directly on food (after cooked). The next most popular use of refined salt was for food preservation or pickling. The main reasons for using refined salt is that it is "already refined" and easy to dissolve. Also important to note is that all the refined salt purchased was in plastic bags and the cost of salt per kilogram ranged from 300-600 Riels. Most people purchase salt from the market while some purchase from cart owners.

Recommendations:
- Educational messages should include the importance of using salt directly on food and reasons why it is more effective.
- Persons to be targeted for IDD education should include retailers in the market place as well as cart owners. These persons can use IEC materials to educate consumers.

V. B. Knowledge About Iodine Deficiency

Only a few respondents knew what iodine is and of those who said they knew what it is, none were able to explain what it is. However, many of these same people mentioned that the dangers of iodine deficiency include goiter. All respondents had seen people with goiter and most did not know the cause of it. When asked about treatment, most said that surgery was the way to treat. The majority of respondents did not know how goiter can be prevented.

Recommendations:
- As there is very low knowledge about iodine/IDD in general, education needs to start from giving awareness on:
  - What is iodine?
  - Importance of iodine
  - Iodine Deficiency Disorders - dangers, signs, and symptoms
  - How to treat and prevent IDD
  - Foods rich in iodine including where people can find iodized salt

V.C. Knowledge, Attitudes and Practices Regarding Iodized Salt

The majority of respondents had not heard of iodized salt. When these people were told the importance of iodized salt, most said they would buy and use it. They also thought that the best way to make people believe that iodized salt is good for their family's health was to promote verbally from person-to-person. It was found that most people want to know about quality before purchasing salt and also the usefulness and importance. Most
people will believe anyone who comes to tell them about iodized salt; doctors and NGO staff were specifically mentioned.

Recommendations:
• As there is very low knowledge about iodized salt, education needs to focus on:
  - The usefulness/benefits of iodized salt - use words given by respondents such as: it helps children's health, prevents goiter, good quality, etc
  - Use words such as: doctors say iodized is a high quality salt, is good for ....
  - How to recognize iodized salt: logo,...
  - Inform consumers that the price of iodized salt may be a bit more expensive but it is very good to keep people healthy, etc.
  - Inform people on the current availability of iodized salt in Cambodia and the specific markets in which they can find iodized salt.

V. D. Factors Influencing Iodized Salt Purchase

One factor believed to influence purchase of iodized salt was the amount packaged. Most people prefer packages of 0.5 and 1 kilograms weight. It was also thought that health/nutrition messages should be printed on the packages in order to help encourage people to purchase iodized salt. A clear logo was also mentioned.

Recommendations:
• Iodized salt should be packaged into 0.5 and 1 kilogram bags.

• Packaging for iodized salt should:
  - Have clear printing which includes a logo, brand name, information about inspection, approval and controlled by ...
  - Give a name to the salt that is attractive, clear, and has good meaning on health, such as: 'Healthy Salt' or 'Salt for Health' or 'Smart Salt' 'Quality Salt' ....
  - Provide brief information on the benefits of the salt such as prevents goiter, helps children grow strong and smart, etc.

V.E. Suggestions and Ideas to Manage Factors Influencing Iodized Salt Purchase and Consumption

The most popular method of encouraging people to buy and use iodized salt was believed to be "word of mouth" or "people-to-people". Television and radio were considered the next best method. Most of those interviewed are not influenced by others in their decision to buy and purchase iodized salt. This is probably since most of those interviewed were housewives who are mostly responsible for buying and purchasing for their households. Some mentioned housewives help make decisions regarding purchase and use of iodized salt and these were most likely male respondents. TV, promotion by word of mouth and at the community level were thought to be important in making people understand the importance of iodized salt.

Recommendations:
• Educational materials need to be developed for person to person communication. This could include counseling cards which could be used for small groups.

• TV and radio may be used to increase awareness on the problems of IDD and to inform persons about the availability of iodized salt (where it can be found).
• Organize a marketing campaign where iodized salt is sold. Use posters, leaflets, banners, songs, plays, etc.

• The primary target audience should be the housewife. Education may be given through NGO staff, health personnel, retailers, and others.

V. F. People Who Influence Family Purchase and Consumption of Iodized Salt

Very few people are influenced by anyone about purchase and consumption of iodized salt. Other family members, only influence those who are; no one is influenced by people outside their family. As mentioned previously, most of those interviewed (housewives) are responsible for purchasing food for their family and most do not have to ask or tell anyone in their family if they decide to purchase iodized salt.

Recommendations:
• Since housewives are the main food purchaser and cooks, they usually make the decisions on what foods to buy. IEC materials and marketing strategies should focus on this group (housewife).

• IEC messages should have some phrases indicating that doctors or health personnel say… Doctors or others that people trust should be considered for use in IEC materials.

V.G. IEC and Salt Marketing Materials Development

The methods thought best to make people believe iodized salt is good for their health were advertising campaigns using radio and TV, community training/meetings and word of mouth. Most interviewed thought that housewives should be educated about iodized salt. Other groups included local authorities, “knowledgeable” persons and doctors. Messages thought to be important to make people want to use iodized salt were: good for health, good quality, and prevents goiter. Most people interviewed listen to radio, watch TV and can read.

Recommendations:
• Advertising campaigns using TV and radio spots, songs, skits, and newspapers will reach a large audience and could be useful in "getting the message out".

• Community training/meetings were thought to be useful. For large groups, IEC materials such as posters, skits, and songs should be considered and for smaller groups, materials such as counseling cards and leaflets.

• For person-to-person or "word-of-mouth", EEC materials such as counseling cards, leaflets, demonstrations, and provision of samples should be considered.

• Doctors or other health personnel will be important in educating the population about the benefits of iodized salt. Materials for their use need to be developed and can include posters, leaflets, and slogans.
Retailers are also important in information dissemination for iodized salt. Materials need to be developed for their use and could include: banners, stickers, T-shirts, umbrellas, slogans, posters, leaflets, and samples.

Training materials will also be useful in schools. Posters, leaflets, songs and skits should be considered.

**Target audience**

- The primary target audience are housewives.
- Secondary target audiences include local authorities, doctors, knowledgeable persons, teachers, school children - these groups of people are mainly seen as the people who can educate or tell others about iodized salt and its' importance. Although not mentioned by respondents, retailers are also an important target audience.

**Messages**

Messages could include the following:
- Iodized salt is good for ones health
- Iodized salt is good quality salt
- Iodized salt can prevent goiter
- Brand name, logo, medical sign
- Advantages or benefits of iodized salt
VI. CONCLUSION

In conclusion, there is very little knowledge about iodine and iodized salt, and the problems associated with iodine deficiency. Few of those interviewed actually purchase iodized salt. This could be because iodized salt is only available in supermarkets and not in local markets. Most purchase refined salt which is the kind of salt that will be iodized by Phnom Penh salt boilers in the pilot study. This, combined with the fact that most respondents said they would purchase and use iodized salt, makes the pilot project feasible- consumers are likely to purchase, especially if they understand the health benefits derived from iodized salt, they see that quality of salt is good and there is a clear logo on the package.

A marketing/IEC campaign should primarily target housewives who are the ones that usually make decisions on food purchases and preparation. Others important to the success of such a campaign include local authorities, doctors, knowledgeable persons, teachers, school children - these groups of people are mainly seen as the people who can educate or tell others about iodized salt and its' importance. Retailers should also be targeted as they have direct contact with consumers.

Materials should focus on IDD in general- iodine, causes of IDD, effects of IDD, signs and symptoms, prevention, and foods rich in iodine. Messages should also focus on iodized salt what is iodized salt, the benefits, how to recognize whether salt is iodized or not, where to buy, how to store, and how to use in cooking.

Primary channels of communication should be interpersonal. This can and should be supported by mass media. However, if mass media is used, there should be clear messages as to where iodized salt is available as currently it is only available in few markets in Phnom Penh and Kandal.

Finally, results of this survey further support previous studies that an iodized salt social marketing activity is both feasible and desirable in Cambodia. An intensive demand campaign could raise awareness of IDD and demand for iodized salt, rendering iodination efforts self-sustaining and profitable in the medium-term.
ANNEX 1

Survey Questionnaire
Iodized Salt
KAP Survey Questionnaire

Name of interviewer: _____________________________________________________________
Date of interview: ______________________________________________________________

My name is (__________). I am conducting a survey for Helen Keller International, a non-profit, non-governmental organization committed to the reduction of micronutrient malnutrition. This survey will collect information on knowledge, attitudes and practices related to salt/iodized salt to help in the development of educational materials.

I. Identification

Name of respondent: _____________________________________________________________
Age of respondent: _____________________________________________________________
Sex of respondent (circle): male female
Role in the family: _____________________________________________________________
Occupation: ________________________________________________________________
Sources of family income: _____________________________________________________
Number of family members who eat together: ______________________________________
Number of children under 12 years of age: _________________________________________
Head of family (circle): male female
Address: H#_______ Str#_______ Group#__________
Sanghat: _______________, Khann: ________________, Phnom Penh

II. Current practices, regarding salt use

I will begin by asking you about current salt use.

1. What kind of salt does your family usually use? (multiple answers allowed)
   a) refined
   b) coarse salt grade 1
   c) coarse salt grade 2
   d) other ___________________(please specify)
2. What is the use and purpose of each kind of salt? (*please fill in table below*)

<table>
<thead>
<tr>
<th>Kind of salt</th>
<th>Purpose of Use</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>refined</td>
<td>coarse salt rode I</td>
<td>1</td>
</tr>
<tr>
<td>coarse salt grade II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Where do you usually buy salt?

(*Please ask and fill in the following table*)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>refined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grade I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grade II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. When do you usually add salt to your food?
   a) before cooking
   b) during cooking
   c) after cooking
   d) other please explain: _________________________
   e) don’t know

10. How do you usually store your salt at home?________________

III    knowledge about iodine deficiency.

Now I will ask you iodine deficiency.

11. Do you know what iodine is?
    Yes
    No (Go to Q19)
12. Please explain what iodine is.

13. What is the importance of iodine?

14. What is (are) the danger(s) of iodine deficiency?

15. Who are at risk for iodine deficiency?

16. Where can we find iodine or what kinds of foods are rich in iodine?

17. How can you prevent iodine deficiency?

18. Have you ever seen anybody with goiter?
   - Yes
   - No (Go to Q20)
   - Don't know (Go to Q20)

19. Does anyone in your family have a goiter?
   - Yes
   - No
   - Don't know

20. What is (are) the cause(s) of goiter?

21. Who usually have goiter?

22. What do people usually do to treat goiter?

23. How can goiter be prevented?

IV. Knowledge, attitudes, and practices regarding iodized salt

Now I will ask you some questions about iodized salt.

14. Have you ever heard about iodized salt?
   - Yes
   - No (Go to Q32)
   - Don't know (Go to Q32)

25. How did you hear about iodized salt?
26. What is the usefulness of iodized salt? ________________________________

27. Do you use iodized salt?
   Yes
   No (Go to Q37)
   Don't know (Go to Q37)

28. Why do you choose to use iodized salt? ________________________________

29. What will make people believe that iodized salt is good for their family's health?
   ___________________________________________________________________

30. Where do you buy iodized salt? _______________________________________

31. How much does iodized salt cost per kilogram)? ________________________ (Go to Q37)

32. (Interviewers explain briefly about what iodized salt and its importance.)
   Do you think you will buy and use iodized salt?
   Yes
   No
   Don't know

33. What will make people believe that iodized salt is good for their family's health?
   ___________________________________________________________________

34. What would you like to know before you buy and use iodized salt? ___________
   ___________________________________________________________________

35. Who will you believe most in explaining to you the importance of iodized salt?
   ___________________________________________________________________

36. What will make you hesitate or will stop you from buying and using iodized salt?
   ___________________________________________________________________

V. Factors influencing Iodized salt purchase

The following questions are about purchase of iodized salt.

37. If iodized salt could be packaged in smaller packages, what size of packaging would you prefer? __________________________________________________________

38. What should be printed on the package to help encourage people to buy iodized salt?
   ____________________________________________________________________
39. If the price of iodized salt is a little bit more expensive than regular salt will you buy it?
   Yes  Please explain: ________________________________________________
   No   Please explain: ________________________________________________
   Don't know Please explain: __________________________________________

VI. Suggestions and ideas to manage factors influencing iodized salt purchase and consumption
I would now like to ask you about suggestions you might have on influencing iodized salt purchase and consumption.

40. What do you think are the best ways to encourage people to buy and use iodized salt?
   __________________________________________________________________

41. Who will help you make decisions to buy and use iodized salt?
   __________________________________________________________________

42. What should we do to make people understand the importance of iodized salt and want to buy and use it?
   ____________________________________________________________________

VII. People who influence purchase and consumption of iodized salt
The following questions are about people who are influential.

43. Who knows best about foods in your community? ________________________

44. In your family, who usually buys food? ________________________________

45. In your family, who usually cooks? ________________________________

46. In your family, who usually makes decisions on foods to buy and eat? ________
   __________________________________________________________________

47. If you decide to buy iodized salt, do you have to ask or tell other family members?
   Yes   whom do you have to ask? ________________________________
         why do you have to ask? ________________________________
   No    why not? ______________________________________________
   Don't know
   ________________________________________________
48. Is there anyone in your family who may resist iodized salt purchasing and use?
   Yes
   No
   Don't know

49. Is there anyone outside your family who you think has an influential role in your family's purchase and consumption of particular foods?
   Yes
   No (Go to Q51)
   Don't know (Go to Q51)

50. How do you think these influential people can be encouraged to accept iodized salt use? ______________________________________________________________

51. Have you talked with your neighbors about kinds of foods to buy and eat?
   Yes
   No

52. Do you usually ask for advice when you have questions or problems regarding foods?
   Yes  Who do you ask and why? ______________________________________
   No (Go to Q54)
   Don't know (Go' to Q54)

53. Whom you believe most in giving you advice about foods? ____________________
   Why? _____________________________________________________________

III Suggested, and ideas for IEC and salt marketing materials development

I would now like to ask you about your ideas for educational materials development.

54. What kinds of education do you think is best to make people believe that iodized salt is important and essential for their health? ____________________________
   Why? _____________________________________________________________

55. What kinds of media do you think are the best to reach people and will make them believe most? ____________________________
   Why? _____________________________________________________________

56. Which groups of people do you think are the groups of people we should educate about iodized salt? ____________________________
   Why? _____________________________________________________________

57. What kinds of messages do you think we should provide to make people understand the importance of iodized salt and want to use it? ____________________________
58. Do you listen to radio?
   Yes
   No (Go to Q61)

59. Which radio station(s) do you usually listen to? ____________________________

60. What times do you usually listen? ____________________________

61. Do you watch TV
   Yes
   No (Go to Q64)

62. Which TV station(s) do you usually watch? ____________________________

63. What times do you usually watch TV? ____________________________

64. Can you read? (Interviewer ask respondent to read sample)
   Yes
   No (end of interview)

65. What kinds of books/magazines do you like to read? ____________________________

OBSERVATION CHECKLIST

May I see what kind of salt you have in your home.

Note the following:
1. Kind of salt: ____________________________
2. How salt is packaged: ____________________________
3. How many kilograms: ____________________________
4. How is salt stored: ____________________________

This concludes the interview. Thank you very much for time.