

**MANUAL IV**

**NATIONAL  
SOCIO-ECONOMIC SURVEY  
1998**

**MANUAL OF  
HOUSEHOLD IODIZED SALT  
SURVEY**

**Central Bureau of Statistics,  
Jakarta - Indonesia**

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**Republic of Indonesia**  
**Central Bureau of Statistics and World Bank**  
**MANUAL ON IODIZED HOUSEHOLD SALT**  
**(Integrated with Susenas 1998)**

**I. Preface**

**A. General**

Iodine is one of an important micronutrient for the human body. Deficiency of this substance may cause various disturbances which is known as *GAKY* (*Gangguan Akibat Kekurangan Yodium* = Disturbances Caused by The Deficiency of Iodine). The deficiency of iodine causes the swelling of the Goiter glands, but the defects causes greater disturbances such as mental disturbances and intellectuality. This can effect the productivity and the potential of the development of this country.

The efforts have been undertaken through supplementing iodine (through injections or capsules) to the group of community that is of need. As a long period program it is very costly, so a cheaper and continuous strategy is done through fortifying food and in order to prevent iodine deficiency, salt is fortified.

The government has launched a universal iodized salt program and is aimed to end by the end of 1998. One of the efforts that have to be put in order is the supply and distribution of the iodized salt so that it can be easily obtained. The Integrated Survey on Household Iodized Salt (SGY) 1998 into Susenas 1998 is a medium to measure and evaluate the level of accomplishment on the iodized salt program.

**B. Objectives**

The main objective of SGY 1998 is to obtain the data on the proportion of households/community that consumes iodized salt. The data collection on household salt may give the indication on the access of iodized salt in the community in order to visualize the attained level of the iodized program that is being launched. This is valuable input for the program planners to reform and conduct the follow-up.

**C. Sample**

SGY 1998 is conducted through all survey areas of Susenas 1998. The chosen households of this survey are all household samples of Susenas 1998, which is a total of 208,064 households.

The salt sample that will be tested is the salt used for cooking at households (usually in kitchens) and other salts that are directly consumed by the households. Other salt is used to add taste in food that is cooked in the household or ready-made food (usually on top of a table and is namely table salt).

**D. Data Collection**

On the label of the bottle solution there is the example on color gradation, in this survey observe the iodine contained in the salt. If the color changes into dark purple it indicates that it contains enough iodine. If the color changes to grey or light blue it indicates that the salt lacks iodine and if there is no change of color it indicates that the iodine is negative (does not contain iodine).

**E. Survey Officers**

The survey officers for this survey are the core supervisors of Susenas 1998 in their own working area. Enumeration can be done immediately after the Susenas enumerator has conducted their work or it could be concurrently. The supervisor could conduct the enumeration on iodized salt survey, also supervise the household enumeration by the enumeration officer of Susenas 1998.

## II. Testing Iodized Salt at the Households

The iodized salt can not be compared with the non-iodized salt, except it is declared contains iodine. The indication can only be through a laboratory test and several departments (Health, Industry and Trade) have conducted this, as an attempt for quality testing. A simple testing device (tester) has been produced for use in the field and can be used to test iodized salt directly anywhere, including in the kitchen. PT Indofarma manufactures the tester used in this survey, but this tester cannot detect the iodine contained in salt that is alkalis or mixed with an alkalis free flow agent such as the tasty salt with the brand namely *Miwon*.

Although the production of salt has been iodized, that does not guarantee the consumption of the salt. This is influenced by the awareness of the community on the importance of iodized salt, the acknowledgement of label package and the supply of iodized salt in the market. The most recent method to understand how high is the level of iodized salt consumption in the community is by directly testing it at the households.

Several important matters on the use of the tester:

1. Pay attention on directions for use
2. The bottle solution has to be closed tightly after every use
3. Although the color gradation shows the iodine level the figures are only estimation. To obtain the precise number, a laboratory test still has to be done.

## III. Procedures on Filling in the VSEN98.GY List Page 1

This list consists of 6 blocks: Block I Identification of Location, Block II Summary, Block III Characteristics of Enumerator, Block IV Household List and Consumption of Iodized Salt, Block V Directions on the Usage of the Tester and Block VI. Notes. A set of list is used for enumerating all households in the chosen segment groups (16 households).

### A. Block I. Identification of Location

Question 01 – 10: Fill in the name and code of province, regency/municipality, sub-regency, village/urban, enumeration area number, segment group number, segment number, code sample number and classification of Susenas village based on the Block I VSEN98.K.

### B. Block II. Summary

Question 01: Number of Households

The contents of this Question are copied from Block IV Column 2, which is the number of rows that have already been filled in.

Question 02: Number of Households based on the Iodized Salt Level

The contents of this Question is copied from Block IV and consists of 2 sections which is the box **for cooking**, the salt used for cooking is copied from Column 16 and the contents of the box **other salt** is copied from Column 17. The contents of Question 02a, Question 02b and Question 02c are the number of Code 1, Code 2 and Code 3 in each column.

Question 03: Number of Households that Use Salt at Home

The contents of this Question are the total contents of Question 02a, Question 02b and Question 02c. The details are classified based on the number of households that use salt for cooking and other salt.

### C. Block III. Characteristics on Enumerator

Question 01-04: Fill in the name and the Number of Official Identification (NIP) of the enumeration officer, enumeration's official function, date of enumeration and signature of enumerator.

### D. Block IV. Household List and Consumption of Iodized Salt

The block is to record each household and several characteristics on the consumption of iodized salt.

How to fill in:

**Column 1: Household Serial Number**

This column is written based on the household serial number that is in Question 10 Block I, VSEN98K List or Block IV, Column 1, VSEN98.DSRT List.

**Column 2: Name of Respondent**

Write the name of the interviewed respondent. Meet the household member that understands the usage of salt in the household (usually housewives). The names have to be clear and not shorten.

**Column 3: Relationship of respondent with Head of the Household**

Ask the relationship of respondent with head of the household. Fill in the appropriate code into the provided boxes.

**Column 4: Do you know the Use of Iodized Salt?**

This question is to understand if the respondent understands the use of iodized salt. Fill in **Code 1** if the respondent understands and **Code 2** if does not understand. If the respondent understands the use of iodized salt, continue to the next question in **Column 6**.

Note: If the respondent only knows that iodized salt is available, but does not know the use/function of iodized salt then fill in **Code 2** (no)

**Column 5: Do you use salt at home?**

Column 5 is asked if Column 4 is coded 2, which is if the respondent does not understand the use of iodized salt. Fill in **Code 1** if “yes” and **Code 2** if “No”. If Code 1 is filled in continue the question to Column 9, if Code 2 is filled in, the question is over for the related household.

**Column 6: Where did you obtain the information for the first time?**

This column is asked if Column 4 is coded 1, which is the respondent know the use of iodized salt. Ask where did they obtain the information for the first time. Fill in Code 1 if obtained from neighbors/family or relatives, Code 2 from the Head of PKK (Household Welfare Group), Code 3 from the radio/TV/newspaper. Code 4 from the health advisor, Code 5 from education (example: during at school there was a class on the knowledge of iodized salt) and Code 6 from other sources.

**Column 7: Do you use iodized salt at home?**

This column is asked for respondents that know the use of iodized salt. Fill in Code 1 if the respondent uses iodized salt as home, Code 2 if the respondent does not (feels) use iodized salt and Code 3 if the respondent does not use salt at all at home (example students that never cook, always buy ready-made food).

If the respondent uses iodized salt at home (filled in code 1), the question is continued to Column 9, if Codes 2 continue to Column 8 and if Code 3 is filled in the question is over for the related household.

**Column 8: The Purpose of not using Iodized Salt**

Fill in Code 1 if the stall/shop/market does not sell iodized salt, Code 2 if they dislike the taste, Code 3 if the price is more expensive and Code 4 if the purpose is other than Code 1 till 3.

**Column 9: Where do you buy salt?**

Fill in Code 1 if the respondent purchase salt at the market, Code 2 at the stall/shop, Code 3 from the remote vendor and Code 4 other than mentioned above.

**Column 10: Salt product purchased**

Fill in Code 1 if the salt purchased is a local product, Code 2 if non-local and Code 3 if don't know. Local product is if the consumed salt is a production of the regency/municipality where the chosen household lives.

Example:

Zulkarnaen's household lives in the Regency of Bandung and purchases salt produced in the regency of Cirebon, so fill in the contents of Column 8 for the household of Zulkarnaen with Code 2 (non-local).

**COLUMN 11 TILL 16 ARE QUESTIONS FOR  
COOKING SALT**

If the household does not use salt for cooking, Column 11 till 16 is empty, but Column 17 still has to be asked.

Column 11: Type of salt consumed by the household

The type of salt used refers to when the salt was purchased

1. Fine/table is the type of fine salt, which are in plastic packages.
2. Coarse is the type of coarse salt like crystals
3. Brick is the type of salt in the form of a cube like a brick with a certain size.

Column 12: Brand of salt

Write down the brand of purchased salt also the production area of the salt. Example: salt branded Dolphin made in Surabaya is written as “Dolphin/Surabaya”. If the purchased salt does not have a brand fill in a dash (-), and if does not remember the brand fill in “does not know”.

Column 13: Container of salt storage

Container here is the tool/medium used as a temporary storing place before the salt is used/consumed. Fill in Code 1 till 5 based on the respondent’s answer.

Code 1: Ceramic → if the container is made out of ceramic

Code 2: Plastic → if the container is made out of plastic

Note: if the respondent purchases salt in a plastic package and still stores it in the plastic package

Code 3: Glass: if the container is made out of glass

Code 4: Metal: if the container is made out of metal

Code 5: Others: if others than mentioned above

Column 14: How is the salt stored

Fill in Code 1 if it is stored closed, Code 2 if opened.

Column 15: Location of salt storage

Fill in one of the codes 1 till 3

Code 1: Above/near the stove if the location is above/around the stove

Code 2: Inside a cabinet if the salt is stored inside a cabinet

Code 3: On top of a table/shelf, if the salt is put on top of the table/shelf

Code 4: Others then mentioned above

Column 16: Level of Iodized salt used for cooking

This column is specifically to record the results of testing salt used for cooking.

After asking various information in Column 1 till 15 the officer has to do a salt test. The test is classified into 3 classifications that are **enough, not enough and does not contain iodine**. Fill in Code 1 if the tested salt contains enough iodine, Code 2 if the iodine is not enough and Code 3 if does not contain iodine. The directions on how to test and analyze the results are in Attachment 4, VSEN98.GY.

Column 17: Level of other iodized salt

This column is specifically to record the test results of other iodized salt. Fill in Code 1 if the tested salt contains enough iodine, Code 2 if the iodine is not enough and Code 3 if does not contain iodine and Code 4 if the household does not use other salt or only uses salt for cooking.

# ATTACHMENT

## V. Procedures on the Usage of the Tester for Iodized Salt at the Households

The tester is a diluted solution used for testing iodine in salt qualitatively. The solution is packed in a small plastic bottle of 10 ml that can be used for approximately 75 times of testing.

### Procedures:

1. Take ½ teaspoon of salt and put on a plate/thick paper and flatten the surface
2. If the salt is the cube/brick type, before testing grind the salt
3. Put 2-3 drops of solution test on the surface of the salt
4. Observe the change of color that happens after the solution is on the salt

### Reading the results:

1. If the color is dark purple, which is the same color as that is on the label of the bottle, indicates that the salt contains enough iodine based on the criteria (30-80 ppm).
2. If the purple color is brighter than the color that is on the label of the bottle, indicates the salt contains iodine less than 30ppm.
3. If there is no change of color indicates that it does not contain iodine.

### Notes:

1. The testing solution lasts for 3 years, pay attention on the date of manufacture on the bottle label.
2. The tested salt has to be discharged and not consumed
3. Be careful not to spoil clothes with the solution
4. **Keep the solution out of reach of children**
5. The tested salt is cooking salt
6. The household serial number Column (1) has to be the same as serial number of Core household

Level of Color	Estimation of Iodine Level
White	Does not contain iodine
Grey/light blue	Low
Purple	Enough

## VI. NOTES