

A STUDY OF GOITER INCIDENCE AMONG HOUSEHOLDS IN SOUTH COTABATO

Napoleon D. Amoyen

Introduction

The tropical regions of the Third World Countries, including the Philippines, claim most of the one billion people estimated to be exposed to the risk of goiter because of iodine deficiency. Excluding China, Asia has 400 million exposed to the risk of goiter, 80 million of which are actually suffering from the disease. "More than half of the population in severely goitrotous areas may have subclinical hypothyroidism, which itself can have adverse effects on the general health and productivity of the people" (Gilbert, World Health Forum, 1984).

In the hierarchy of acute and chronic diseases plaguing developing countries, endemic goiter ranks low given its benign appearance. Also the full extent of its many complications, all of them deleterious to the well-being of the population, is by no means appreciated (Gilbert, World Health Forum, 1984).

The important role of iodine deficiency in the development of endemic goiter is well established, as are the dramatic effects of iodine supplementation on goiter prevalence rates and on endemic cretinism, which can be eliminated or at least reduced to a negligible level.

Cognizant of its role in promoting health among its people, the Philippine Government, through the Department of Health (DOH), launched its Fortification for Iodine Deficiency Elimination (FIDEL) Program to uphold the goal of Universal Salt Iodization as its commitment during the 1990 World Summit for Children. It is along this line that this survey was envisioned by the Provincial Health Office of South Cotabato to effectively prioritize areas where the initial launching of the program will be done.

Objectives of the Study

Generally, this study intends to establish the prevalence of goiter in South Cotabato. Specifically, it aims:

1. to present a profile of the respondents;
2. to determine the knowledge of the respondents on iodized salt;
3. to establish the prevalence of goiter among respondents; and
4. to describe the respondents health-seeking behavior to prevent occurrences of goiter.

Significance of the Study

This will serve as the basis for the Provincial Health Office of South Cotabato to identify endemic areas where the initial launching of the Iodized Salt Program should be implemented.

Methodology

This is a descriptive study focusing on the prevalence of goiter in South Cotabato, including information on the

respondents' profile, knowledge on iodized salt, and health-seeking behavior relative to goiter treatment.

The study was conducted in 11 municipalities (e.g. Polomolok, Tupi, Malapatan, Tampakan, Tantangan, Sto. Nino, Banga, Norala, T'boli, Lake Sebu and Surallah) of South Cotabato.

The barangays under each municipality were classified into urban and rural, from which the survey sites were chosen. All the urban barangays were purposively chosen as survey sites while two rural barangays were chosen from each municipality based on the highest number of household population. A total of 800 respondent-households (i. e. 400 rural and 400 urban) were systematically chosen from each barangay.

The household heads served as the respondents of the study. A structured interview schedule, translated in the vernacular, was used in the data collection. Twenty-two barangay health workers (BHWs) were trained for the data collection. They were supervised by a trained Field Supervisor for a period of 15 days.

Data processing was done manually while data analysis used simple descriptive statistics such as mean, frequency and percentage distribution.

The Research Findings

Incidence of Goiter Among The Respondents

Prevalence of goiter in this study is determined in two

ways:

1. This was addressed by asking the trained BHWs to secure the number of households in the survey sites with cases of goiter. These figures were then divided by the total number of households.

2. Based on the results, a total of 921 (3.3%) out of 27,544 households from the survey sites were reported by the field interviewers as having cases of goiter. The rural survey sites indicated a total of 626 households (68% of 921) with cases of goiter as compared to the 295 (32% of 921) urban households reported by the field interviewers. As a whole, the urban survey sites revealed a prevalence rate of 1.5 while, for the rural survey sites, the prevalence rate was computed at 7.7.

In the urban survey sites, on the one hand, the prevalence rate of goiter ranged from as low as 0.2 (Poblacion, Tampakan) to as high as 6.7 (Poblacion, T'boli). On the other hand, the rural survey sites' prevalence of goiter ranged from 0.2 (Barangay Kablo, Tupi) to 39 (Barangay Tasiman, Lake Sebu). These figures generally revealed a relatively higher prevalence of goiter in the rural areas than in the urban areas.

The survey sites with prevalence rates equal to or greater than 10 include the following: Tasiman, Lake Sebu (39), Kematu, T'boli (37.2), Moloy, Surallah (21.9), Lampitak, Tampakan (19.2) and Lamfugon, Lake Sebu (16.9).

When the prevalence rate of goiter was computed

among the respondents, the findings showed that the urban survey sites revealed a total of 76 households with cases of goiter compared to the 65 households in the rural survey sites.

Among the urban survey sites, except for Sto. Nino (3.2) and Banga: Reyes (6.3), the rest of the poblacion had prevalence rates equal to or higher than 10. Poblacion, Tantangan revealed a prevalence rate of 40, followed by Tupi (37.1), and Surallah: Libertad (37). It is interesting to note that the field interviewers from T'boli were not able to interview any households with cases of goiter.

Among the urban survey sites, four barangays had less than 10 prevalence rate: Moloy, Surallah (9.1), Kablon, Tupi (3.2), Saravia, Koronadal (9.1), and San Jose, Banga (7.7). Canahay, Surallah pegged the highest prevalence rate (64.7) among the respondents, followed by Lamfugon, Lake Sebu (44.4). The other barangays with prevalence rates equal or higher than 10 were: Desawo, T'boli (23.1), Kematu, T'boli (23.1), Lapuz, Norala (11.1), New Cuyapo, Tantangan (25), Acmonan, Tupi (31), Assumption, Koronadal (26.7), Liwanay, Banga (28.2), Danlay, Tampakan (16.7), and Lampitak, Tampakan (26.7). It is interesting to note that none of the households interviewed in barangays Tasiman, Lake Sebu; San Vicente, Sto. Niño; San Jose, Norala; and New Iloilo, Tantangan reported any cases of goiter.

A total of 161 cases of goiter were recorded from the 800 households covered by the survey. The urban areas recorded a total of 89 cases from 76 households (or an average of 1.2 cases per household). The rural areas, on the other hand, indicated a total of 72 cases from a total of

65 households (or an average of 1.1 cases per household).

Among the urban survey sites, Surallah and Liwana, Banga (11 cases each) revealed a relatively higher number of cases of goiter, with Kablon, Tupi the lowest (1 case only).

Health-Seeking Behavior Relative To Goiter Treatment

This section discusses the respondents' health-seeking behavior relative to goiter treatment. Specifically, it deals with the following topics: number of respondents reporting any of their household members with signs and symptoms of goiter, number of household members with signs and symptoms of goiter, usual action taken if any household members had signs and symptoms of goiter, medicine used for self-medications, consultation with public health center, and attitude towards public health services.

Only a few of the respondents (17.6% or 141 respondents) have household members with signs and symptoms of goiter. Around 19 percent (18.8%) were from the urban areas while 16.3 percent were from the rural areas. The figures, though appearing small, should cause concern on the part of the health officials. Health-wise, though it is not contagious, necessary attention should be given them. If left unattended, the number of individuals with goiter will most likely increase. This will greatly affect the good health of the individuals concerned.

A total of 161 individuals were reported with signs and symptoms of goiter. Of these 161 individuals, more than half (55.3% or 89 persons) were urban dwellers while 44.7 percent (or 72 persons) were rural dwellers.

When asked about the usual action taken when any of their household members has signs and symptoms of goiter, data show that most of these household members self-medicated (31.1%). Others consulted the health centers (26.1%), and still others consulted doctors and *hilots* or traditional healers (5.6% each).

Self-medication usually included iodized salt (23.8%) and eating seafoods/seaweeds (20.6%). Others used wet hot towel, herbal medicine, ointment, iodine, chinese medicine, Inderal, ginger and coconut oil. It is interesting to note that 34.9 percent failed to indicate the medicine used when they self-medicate.

The urban-based respondents appeared to use more medicine during self-medication (9 types) than rural-based respondents (8 types).

More than half of the household members with signs and symptoms of goiter (60.7%) consulted the public health center, while the rest (39.3%) claimed otherwise.

Those who did not consult the public health center, usually visited private doctors (58.2%) or barangay health workers (25.5%). Others consulted the traditional healers, their parents, private nurses/midwives and their children.

The proximity of residence to the health center has been found by several studies to be a determinant of use of the services of the public health center. The farther the residence of the clients from the health center is, the lower the utilization of the service of the health center compared to those residing nearer the health center. In this study, the

respondents' residences were located at an average of 1273 meters away from the health center. The respondents from the rural areas were 1307 meters away from the health center while those residing in the urban areas indicated an average of 1239 meters away.

When asked about what they have been doing to prevent goiter in their households, the three most mentioned activities included use of iodized salt (43.4%), eating seafoods (28.1%), and eating seashells once a week (12.5%). Similar activities were cited by the urban- and rural-based respondents.

Attitude refers to one's disposition towards an object or a thing. In this study, attitude refers to the respondents' views about the services of the public health center. This will serve as a gauge to establish the support that the clients tend to have about the services of the public health services.

Generally, the respondents had a favorable attitude towards the health services provided by the public health centers.

Two out of eight attitudinal statements were given by the respondents an unfavorable rating. These statements include "Patients usually go to the public health center because of free medicines" and "The services from the public health center and private clinic are equally good." These were given a rating of 3.14 and 2.87, respectively. These show that the respondents were discounting the concept presented in the statements, i.e the respondents disagreed that the clients go to the health center because of free medicines and that the services of the health center are the same quality as those with the private clinics.

Similar statements were rated by both urban- and rural-based respondents as unfavorable. Also, it is worth noting that

the urban respondents rated the statement: "The public health center is doing good in treating patients with goiter" as "very favorable" (1.53); the rest of the statements were rated as "favorable." None of the statements were rated by the rural-based respondents as "very favorable." Except for those rated as "unfavorable", all the statements were rated as "favorable" by the rural based respondents.

Summary of Findings

The respondents were usually female (87.5%), average age of 37 years old, reached high school level of education (45.5%), were employed (94.4%) as farmers (40%), mostly without other sources of income (62.6%), earning an average of P2643 monthly - which is less than half of the poverty threshold of 5581.64 - and had an average of 5.6 household members.

A significant number of the respondents (88.9%) reported knowledge about iodized salt which was usually provided by the barangay health workers (67.5%), radio (62.6%) and midwives (45%). They learned that iodized salt prevents goiter (41.4%) and improves the memory of children (25.6%).

The signs and symptoms of goiter usually recognized by the respondents were "enlargement of the neck" (54%) and "tightening of the neck" (16.3%).

Based on the total household population of the survey sites, a prevalence rate of 3.3 percent was recorded. A total of 921 out of 27, 544 households from the survey sites were reported as having cases of goiter. The following barangays can be seen as endemic based on the established prevalence rates of 10 percent and over: Tasiman of Lake Sebu (39%),

Kematu of T'boli (37.2%), Moloy of Surallah (21%), Lampitak of Tampakan (19.2%), and Lamfugon of Lake Sebu (16.9%).

Based on the number of respondents covered by the study, a prevalence rate of 17.6 was recorded by the 800 respondents. A total of 161 household members from 141 respondents were reported as having signs and symptoms of goiter. Urban areas reported a relatively high number of goiter cases (89 persons from 76 respondents) compared to their rural counterparts (72 persons from 65 respondents).

The usual action taken by the household members with signs and symptoms of goiter was to self-medicate (31.1%) and consult the health center (26.1%). Self-medication usually included iodized salt (23.8%) and eating seafoods/seaweeds (20.6%). *Hilots* or traditional healers were likewise consulted. Those who do not consult the health center for signs and symptoms of goiter usually visited the private physicians (58.2%) and the barangay health workers (25.5%). The health centers were usually 1273 meters away from their residences.

The respondents used iodized salt (43.4%) and ate seafoods (28.1%) to prevent occurrence of goiter.

The public health services were favorably viewed by the respondents (2.21).

Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. The respondents indicated a favorable attitude towards

public health services. This should be sustained and developed further by soliciting all out support from the local officials, given the devolution program, to encourage rather than discourage locally-based professional health workers to go to the barangays by providing the necessary logistical support and the medicines needed by the citizens.

2. As a whole, the prevalence rate of goiter is 17.6 percent among the respondents: 19 percent for urban respondents and 16.3 percent for rural respondents. Health-wise, these figures seem to be alarming and merit the attention of the health authorities; unattended, the adverse effects of goiter to women and children will worsen. As such, the provincial, municipal and barangay level health workers can design indigenous ways of education programs that will prevent occurrence of goiter.

3. Most of the respondents with signs and symptoms of goiter tend to self-medicate. Self-medication exposed clients to unnecessary health risks (Hardon and van der Geest, 1987: 470). Thus, it is suggested that the provincial, municipal and barangay level health workers should determine how and what type of drugs should be made available to the clients. This should likewise encourage physicians to acquire a list of essential drugs to provide effective information. This should be translated to the vernacular for clients to understand better the effects of their self-medication. This underlies the crucial role of primary health care programmes and consumer groups in the improvement of drug distribution and use. Grass-roots education should inform people about rational self-medication and explain the hazards of present practices.

4. Those who claimed they did not consult the public health center for signs and symptoms of goiter, usually consulted private physicians and barangay health workers. Barangay health workers are volunteer workers assisting in making "health for all in the year 2000" happen. Their information in diagnosing illnesses is usually based on their experiences. In this regard, a training on diagnosing illnesses, including goiter, should be provided to them. This will not only enhance their knowledge on basic health care but likewise contribute to the prevention of illnesses in far flung barangays.

5. The usual action taken for signs and symptoms of goiter include both the professional health workers and traditional health workers (i.e. *hilots*). This shows the tendency of the clients to marry modern and traditional medicine. The use of traditional medicine reveals the level of trust the clients had with the century-old health practices. Thus, the provincial, municipal and barangay level health workers are encouraged to merge the modern and traditional medicine in their delivery of basic health-care services to the grassroots people.

6. The study focused primarily on establishing the number of cases of goiter in the survey sites. However, Dr. Christine Gielbert recognized that the prevalence of goiter can be due to various factors such as dietary intake, water and environmental goitrogens (Gielbert, 1984: 171). It is therefore recommended that the provincial health office of South Cotabato should organize an interdisciplinary research on the factors affecting the prevalence of goiter so that specific cases can be established. This will help the health authorities to outline programmes that will address directly the causes of goiter.