Abstract- Aim of paper is to study behavior including attitude health toward on drinking sweet instant green tea including policies implemented. A survey questionnaire is used as the tool. There are four hundreds sampling group are selected from Thai population. The questionnaires are used for collecting data. The researcher constructs them for the research. There are three parts those are (1) Individual Characteristic (2) Consumption Behavior and (3) Attitude on Drinking Sweet Green Tea. Outcome shows that the most responses are in 21 – 25 years range be 41.75%. The consumption behavior on drinking instant sweet green tea bottle specific on mostly 1 time in a month is 31.75%. However, the respondents normally buy the tea with co-workers (47.75%) during 18.00 – 24.00 o’clock (43.50%) after finishing work period or continuing working in the over working hours. They do immediately pick up (83%) the instant sweet green tea bottle with 1.25 liters container (57%). Majority agree that instant sweet green tea can release the thirsty (average 44.5%) with the most convenient to consume (average 58.75%). Furthermore, price (average 51%), good appearance and useful on health (average 43.25%) are the key factors of concerning to consume. However, none of instant sweet green tea is supporting on social acceptance (40.25%). The attitude of Thais on drinking the instant sweet green tea is contrasting to the real knowledge report of the health provided which it says that the phenolic compounds inside bottled commercial green tea are $35.9 \pm 6.2$ mg/L for original flavor. Besides, total sugar content in original flavor provides the amount of sugar content which is 72.5 mg/L or 18.125 teaspoons of sugar. Regarding to the World Health Organization (WHO), the recommendation of sugar consumption should not more than 6 teaspoons of sugar a day in order to avoid diabetes. In Thailand, bottled instant sweet green tea types are sold at convenient stores and easy to buy that support on attitude of drinking. In addition, Thais believe, tea can help the physical body keep fresh in hot weather. Taking a close look at the contents of the bottled sweet green tea finds that the main part is sugar that can cause diabetes. Up to this point, it makes the management of diabetes be acting as main challenge for health economics in Thailand. The delivery in quality health care needs to be addressed. From the literature review and market-based data approach, the data shows that the number of diabetes patients is increasing in the high risk population combining to poor treatment outcomes and lack of policy framework to targets on monitoring to target on sustaining.
Furthermore, the lifestyle and education on quality of information has less prevented.

Keywords: attitude, behavior, health, health economics, sweet green tea

I. INTRODUCTION

When economics is mentioned, everyone will think of changing in situation of business in both closed and opened economy. Nonetheless, the fact is that economics has so many branches. One branch relates called “Health Economics”. It is concerned with issues linked with the functioning of health that affects behaviors. Reference[1] mentions that health economics is a discipline that draws a conceptual distinction between health and other goods, and is supported by [2] who states that health economics is different from other economics branches that include government intervention, asymmetric information, and presence of a third-party agent. The reference [3] divides the scope of health economics almost nearly ten different aspects. Particular the one is used to describe on sustainable health be most outstanding concern in recent period. The matter of people on health is increasing. Then, the knowledge, habits, and attitude of humane are fundamental spirits making the discipline in lives to protect the risk from not infection diseases such as diabetes, obesity, and high blood pressure of human being. The basic knowledge on sustainable health is “drinking warm water”. Person needs to drink more than six cups of water per day or around 2 liters because water can reduce the blood concentrations and awake the organ function. Drinking water is very important similar to eating food. People cannot survive if there is no water; however, they can alive only drinking water. Sometimes, one cannot fine pure water to drink, but can substitute by drinking tea. Because inside the tea, it has the main component called “tannins or tea polyphenols” that can release thirsty and resistant diseases such as antioxidants on cells of the body and protect the liver from toxins. Economics which subject concerns on “Health” is combined both economic theory and an approach on solving problem in medical and health. Human or consumers has an unlimited wants but the resource is limit. So, in this aspect, health economics can open the overview on “How to make decisions based on scarcity of resources”. Economic uses the process of comparing on “input or cost” and “output or consequence-risk/benefit” for each of choices via the type of economic evaluation such as cost (minimization) analysis or CMA; cost-effectiveness analysis or CEA; cost-utility analysis or CUA; and cost-benefit analysis or CBA to assess the health technology. Economic evaluation can also contribute many benefits; for example, tentative information for managers on final decision making, allocating health resources in efficiency, investigating an outcome both in short and long term including indirect effect. In the health care, “health capital” means the process in which to achieve on consumers’ healthcare. The reference [4] classifies that people are in four roles as contributors, citizens, providers, and consumers in the healthcare. According to global consumers concerning, this brings up the new trend on market for food consumption. It shows that consumers turn to concern and willing to use the products which are produced in sustainable environmentally friendly and organic, natural and free of chemical residue. This trend of consumption becomes outstanding and vital because people are concerned more with their health.

Ways of means, tea is one of the beverages that create an aroma when it is poured by hot or boiling
water through the leaves. In Asia, tea is the most broadly consumed drink [5]. In China and India, tea is used as a medicinal drink [6]. Both green tea and black tea are appreciated by everyone around the world not only in Asia now a day. Only one to two inches from the top of a tea plant is picked because the leaves on the top are slow in growing; this tends to produce better flavored teas. The most common tea is white, green, oolong, and black. Oolong can be used medicinally. However, reference [7] suggest that if one drinks green tea and black tea, this can be far away from cancer. Also, reference [8] recommend that only black tea provides protection from other diseases such as obesity or Alzheimer. Besides, tea leaves even contain diverse polyphenols and other catechins (e.g. [9] – [10]).

In order to weight concerning of economics health for Thais consumers on bottle commercial tea consumption, there are six categories of tea available in Thailand market such as white, green, oolong, black, pure, and scented. These tea drinks are popular among Thais. Tea is one of the drinks besides coffee, chocolate and soft drinks [5]. The reference [11] as well as [12] say that the number of drinking tea can affect to decrease or increase chances of being cancer. Seven cups per day is suitable number drinking. Nowadays, tea becomes popular in Thailand particular in form bottled. It provides convenience and there is no need to buy the dried tea leaves and brew with boiled water. The market of tea in Thailand is significantly. When the bottled tea is easy consumed, consumers ignore the bad effect especially the caffeine and sugar content. These basic substances can cause side effects to consumers who drink bottled commercial tea in excess. The objective is to study behavior and attitude on drinking green tea linking with health economic perspective. The changing in social and economic affects to the balanced lives of humans being the significant point. The age average of people is increased in every year, but in the same time the illness and incommunicable disease also are increased. The cause of sickness comes from having inappropriate health behavior transferring problems of individuals and families extended to a public health problem, so the information obtained from the study is a guide to promote behavioral change to prevent risk of obesity, diabetes of Thai people. A research uses market-based data approach to review the information on bottle commercial tea and the preferences of consumers for health outcomes and provides discusses issues to assess individuals’ preferences for health via knowledge based, behavior and attitude of people who drink sweet green tea. The conceptual framework of a study is shown in Fig.1 following by the three parts of survey questionnaire used.

Source: Self Development, 2016

Fig. 1 Conceptual Framework of a Study

II. LITERATURE REVIEW

In previous studies, the most generally the bad affect can be caused on drinking tea particular bottle commercial tea for consumers’ health is by especially the caffeine and sugar content. Caffeine is an alkaloid naturally found. Sugar is the substance that provided
sweet taste of food and edible products. The original of sugar mostly made from sugar cane. In chemical properties, the molecules of sugar consist of carbon, hydrogen and oxygen. There are many types of sugar depends on the processes and purpose of using in food. Diabetes mellitus is also known as diabetes. When the physical body of someone fails to utilize sugar, the human body properly dues to lack of the hormone insulin [15]. The most common problem of diabetes is the consumption of sweetened product for a long time. Sugar from product cannot utilized all, which store in the human blood caused high blood sugar level. The major symptoms start from the increasing of weigh lost, tired and frequency of urination. Some patients have abdominal pain or respiratory problem. Diabetes in serious long-term can be caused so many diseases such as heart disease, chronic renal failure and blindness. Blood pressure control and personal lifestyle factors are the key of treatment that can reduce the potential risk of diabetes. The research in reference [16] finds that if consumers drink too much tea, it will cause kidney stones; moreover, drinking black tea may cause cold symptoms and acute renal failure because the tea contains a huge amount of oxalate. In addition, MD. Chunharojrit points that drinking rich green tea is good because it has antioxidant and consumer should drink at least 20 cups in daily to prevent cancer. However, in practice way, the consumers drink green tea in diluted with adding much sugar and other flavoring in it making cause obesity.

III. METHODOLOGY
Population is Thais who are living in Bangkok province 5,692,248 people. It classifies by gender as male and female. Number of male is 2,695,519 and female is 2,996,765. The sampling group is needed to select being the representatives. In this study, population is called “Finite Population”. Then, the method use for earning the correct sample size called “TARO YAMANE” [17]: 

\[ n = \frac{N}{1 + N \times D^2} \]

when \( n \) = size of expected group; \( N \) = total population; \( D \) = level of significant. In this case, \( N = 5,692,248 \) people; \( D = 0.05 \). Therefore, \( \frac{5,692,248}{1 + 5,692,248 \times (0.05)^2} \). So, \( n = 399.99 \) so, paper uses \( n = 400 \). Next, the stratified random sampling or systematic sampling is selected to classify the small group of people which it is called “Homogeneous” group such as gender via “Quota Sampling” following as 200 male and 200 female. Furthermore, on the survey questionnaire, the sampling method combines with non-probability sampling in “Accidental Sampling”. It means who else passes by being selected. Survey Questionnaire is tool using for collecting the primary data via knowledge, behavior and attitude. There are 3 parts. The first is “Individual Characteristic”. The second is “Consumption Behavior” and the third is “Attitude on Drinking Sweet Green Tea”.

IV. DISCUSSION AND CONCLUSION

As shown in Fig. 2, green tea (first pile) with honey lemon (second pile) flavor provides the highest total sugar content \( (72.5 \pm 0.7) \) when compared to the other flavors. The total sugar content in original flavor, Japanese rice (third pile) flavor, and
Chrysanthemum (forth pile) flavor provide almost the same amount of sugar content. In the honey lemon flavor, this product adds honey which provides more sweetness than other flavor that only adds sugar in the product. Honey contains carbohydrates known as oligosaccharides. Compare between fructose and glucose, fructose provides sweeter than sucrose and glucose. Basically, sugar is less sweet than honey almost 2 times. After total sugar is analyzed, the sugar from analysis is converted into the unit of teaspoon according to the standard measurement.

However, the consumption behavior from questionnaire defines that one time in a month (31.75%) and two or three time per week (26%) with co-workers (45.75%) to drink sweet instant green tea should not be affected from sugar analyzed; but the period is between 18.00 – 24.00 o’clock in night time (43.50%) and 06.00 – 12.00 o’clock in day time (33%) might not be proper to drink especially with 1.25 liters container (57%) and 325 milliliter container (29.25%) because it is too much sugar and it cannot be burnt at the night time in contrast it will accumulate in the blood which it can be seen in Table 1. In the long run, it might cause the diabetes disease or fatty situation.

Table 1: Conversion of Sugar from “mg/L” into “Teaspoon”

<table>
<thead>
<tr>
<th>Type of Green Tea</th>
<th>Sugar (mg/L)</th>
<th>Sugar (Teaspoon) (4 grams = 1 teaspoon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original</td>
<td>30</td>
<td>7.5</td>
</tr>
<tr>
<td>Honey lemon</td>
<td>72.5</td>
<td>18.125</td>
</tr>
<tr>
<td>Japanese rice</td>
<td>30</td>
<td>7.5</td>
</tr>
<tr>
<td>Chrysanthemum</td>
<td>25</td>
<td>6.25</td>
</tr>
</tbody>
</table>

Table 1 shows the amount of sugar that converts from milligrams into teaspoon based on the standard measuring. It shows that green tea with honey lemon flavor provides the highest amount of sugar which contains 18.125 teaspoons per bottle. Both original flavor and Japanese rice flavor contained 7.5 teaspoon of sugar, while chrysanthemum flavor provides 6.25 teaspoons of sugar. According to the record from [4], the recommendation of sugar consumption should not more than 6 teaspoons of sugar a day (approximately 2 tablespoons) in order to avoid diabetes. From the result, it is clearly to explain that one bottle of green tea provides higher than 24 grams or 6 teaspoons. If Thais consume one bottle of tea, it means that they will consume sugar above the limitation that reference [4] recommended. Normally, human body consume carbohydrate including sugar and convert into energy. However, the exceed amount of sugar consumption; body cannot convert sugar into energy immediately. It will affect to the sugar in blood level become increase. Hormone insulin needs to secrete out as much as possible in order to decrease the sugar level to maintain balance. However, it also shows blood sugar be too low in the later which cause the lack of energy and will lead to Alzheimer’s disease earlier than usual. If pancreas secrete too much of insulin, the pancreas will be
deteriorated that cannot produce insulin anymore and cause diabetes.

<table>
<thead>
<tr>
<th>Table 2: Sugar Intake per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>6-25</td>
</tr>
<tr>
<td>25-60</td>
</tr>
<tr>
<td>Above 60</td>
</tr>
</tbody>
</table>

Source: [4]

The reference [4] suggests that people should consume sugar not more than six teaspoons a day (approximately 2 tablespoons) in order to avoid diabetes see in Table 2. In Thailand, the recommendation by Bureau of Nutrition, Department of Health, Ministry of Public Health to the people who have the age between 25-60 required sugar not more than 6 teaspoons. However, in the outcome of questionnaire finds that the age responders are between 21-25 years normally drink instant sweet green tea during the day and the late night time containing more than 6 teaspoons with 1.25 liters bottle. Because the responders think that instant sweet green tea bottle is so much convenient to consume and easy to buy from any convenient stores (58.75%). Surprisingly, the record from Thai Health Promotion Foundation finds out that Thais consume 16 teaspoons of sugar in a day which almost three times higher than the recommended by [4]. Mentioned by Thailand National Health Examination Survey, the overweight and obesity Thais people have been significantly increased (e.g. [18]).
Table 3 and 4, for the public hospital, each person spend 6,331 Baht direct medical cost per year. In the government hospitals find that diabetic patients in outpatient spend money for direct medical five times higher than others in the inpatients. From the Table 4, the main direct medical cost is the hospital care or the inpatient service cost following with drug and outpatient visit cost. According to the results, the phenolic compounds inside bottle commercial green tea is closed to each other, which is 35.9 ± 6.2 mg/L for original flavor, 34.6 ± 6.4 mg/L for both Japanese rice flavor and honey lemon flavor, then 32.3 ± 9.0 mg/L for chrysanthemum flavor respectively. The total sugar content in original flavor, Japanese rice flavor, and chrysanthemum flavor provided almost the same amount of sugar content except honey lemon flavor which provided 72.5 mg/L or 18.125 teaspoons of sugar. However, Thai consumers misunderstand that bottle commercial tea has provided good taste and contain chemical that provide benefits to body. Contrasting bottle commercial tea products contain high amount of sugar which exceed to intake per day. The accumulation of sugar in body will affect to an obesity and cause diabetes in long term. The most common problem of diabetes is the consumption of sweetened product for a long time. The reference [4], the recommendation of sugar consumption should not more than 6 teaspoons of sugar a day (approximately 2 tablespoons) in order to avoid diabetes. The rate of people who gets diabetes has been rising every year. These results clearly show that consumers are vulnerable to health problems involuntarily. Therefore, beverage manufactures should have adequate business ethics to concern people health more by giving a labeling in the package. For example, bottled green tea should be a red warning message on the bottle warning people to drink within limit. Moreover, Thai government should provide academic knowledge about advantages and disadvantages of bottle commercial tea to Thais on preventing misunderstanding of bottled tea consumption. Furthermore, improper on health behavior of Thais in general can cause the individual and family health problem. The research is point on the important factors causing the illness from diabetes and fatty situation. The diabetes and fatty situation do not only affect to one person but also to the others who are in the part of his or her life. It provided a very high total cost in health economic. However, to reducing risk factor causing particular disease it can be prevented by adjusting and changing on health behavior and human lifestyle for building the sustainable good health condition. Besides, health policy makers should plan strategy and prevent diabetes spreading in seriously by setting group discussion conference and giving the knowledge about ingredient making clean and green food includes arranging the specific day doing exercise in every week for Thais.

V. REFERENCES
