

Community health survey of Hauwtanon Tambon, Panusnikom District, May 1999

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Objective : *To study the sociodemographics, vital statistics, household characteristics and risk behavior of the Hauwtanon population.*

Setting : *Hauwtanon Tambon, Panusnikom District, Cholburi Province.*

Design : *Cross – sectional descriptive survey.*

Methods : *Systematic random sampling of 317 households drawn from a total of 1,139 of households. The heads of the households were interviewed by fourth - year medical students on May 26, 1999.*

Results : *The population structure of Hauwtanon Tambon consisted of 61.1 % working population, 16.9 % aging population and 22.0 % childhood population. The major occupation was labour and agriculture. The median income was 56,334 baht per year. Other findings showed 0.7 % natural population increase rate, 89 % birth control rate, 20.9 % birth rate among women under 20 years, and 98.1 % of excreta disposal in water - sealed latrines. Rain water and well water were the major sources of drinking water. 13.4 % of the population were daily smokers. 3.7 % were daily alcoholic drinkers, and 19.1 % were aged 35 and over and had routine yearly health check - ups.*

Conclusions : *Hauwtanon Tambon is an agricultural community with a high proportion of aging dwellers. It has good environmental health but lacks a treated water supply. There are problems of maternal and child health and some health risks from smoking. Diseases of the cardiovascular and respiratory systems are more common than others.*

Key words : *Community health survey.*

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- วัตถุประสงค์** : เพื่อศึกษาลักษณะทางสังคมประชากรศาสตร์ ลักษณะครัวเรือน สถิติชีพ และพฤติกรรมเสี่ยงของประชากรตำบลหัวถนน
- สถานที่ศึกษา** : ตำบลหัวถนน อำเภอพนัสนิคม จังหวัดชลบุรี
- รูปแบบการศึกษา** : การสำรวจระยะสั้นเชิงพรรณนา
- วิธีการศึกษา** : เลือกตัวอย่างจำนวน 317 ครัวเรือนจากประชากรตำบลหัวถนน จำนวน 1,139 ครัวเรือน โดยวิธีการสุ่มตัวอย่างแบบมีระบบ ทำการสัมภาษณ์ ตามแบบสอบถามที่สร้างขึ้นโดยนิติตแพทย์ชั้นปีที่ 4 คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ในวันที่ 26 พฤษภาคม 2542 วิเคราะห์ข้อมูล และนำเสนอผลการศึกษา
- ผลการศึกษา** : ประชากรตำบลหัวถนนอยู่ในวัยทำงานร้อยละ 61 มีประชากรสูงอายุถึง ร้อยละ 16.9 อาชีพส่วนใหญ่รับจ้างและเกษตรกรกรรม มีรายได้เฉลี่ย 56,334 บาทต่อปี ประชากรมีการคุมกำเนิดร้อยละ 89 หญิงอายุต่ำกว่า 20 ปี มีบุตรร้อยละ 20.9 อัตราเพิ่มของประชากรร้อยละ 0.7 มีส่วนดื่ม ใช้ร้อยละ 98.1 แหล่งน้ำดื่ม ได้แก่ น้ำฝนร้อยละ 64.0 น้ำป่อร้อยละ 22.5 ประชากรในชุมชนที่สูบบุหรี่ทุกวันร้อยละ 13.4 ดื่มเหล้าทุกวันร้อยละ 3.7 ประชากรอายุ 35 ปีขึ้นไป มีการตรวจสุขภาพร้อยละ 19.1
- สรุป** : ชุมชนตำบลหัวถนนมีอาชีพรับจ้างและเกษตรกรกรรม ประชากรสูงอายุอยู่ใน เกณฑ์สูง อนามัยสิ่งแวดล้อมอยู่ในเกณฑ์ดี แต่ยังคงขาดแคลนน้ำประปา ใช้น้ำฝนเป็นแหล่งน้ำดื่ม มีปัญหาอนามัยแม่และเด็กและพฤติกรรม การสูบบุหรี่ โรคระบบไหลเวียนของโลหิตและโรคระบบทางเดินหายใจพบบ่อย กว่าโรคในระบบอื่น

Community medicine is one of the major areas of medical curriculum. It is defined as the identification and solution of health problems through comprehensive health care for a defined population in which responsibility and authority are shared between the providers and the consumers of the health services.⁽¹⁾

The community health problems solving process includes:⁽²⁾

1. Community health surveys
2. Community health diagnosis
3. Community health treatment
4. Community health evaluation

The Community Medicine 1 field training program was designed for fourth - year medical students by the Department of Preventive and Social Medicine, Faculty of Medicine, Chulalongkorn University. The training course consists of a principles of community health survey, a questionnaire design and construction, data analysis, a community health diagnosis and a community household survey by interviewing heads of the households. Hauwtanon Tambon of Panusnikom District is about 75 kilometers east of Bangkok. The objective of the community health survey of Hauwtanon Tambon was to determine sociodemographics, household and environmental health characteristics, health statistics, maternal and child health and risk behavior.

Materials and Methods

A cross – sectional descriptive survey was designed to study the general health characteristics of Hauwtanon Tambon of Panusnikom District. A systematic random sampling of 317 households from 1,139 total households was conducted. Questions regarded demographics, socioeconomics,

maternal and child health, family planning, vital and health statistics, environmental health, prevention and control of communicable diseases, health care services and risk behavior. The questionnaires were constructed and pretested before use in this field survey. The fourth - year medical students were trained for the interviewing. They conducted structured interviews with the heads of the households and inspected household and environmental conditions. The questionnaires were then verified for completeness. The data was analysed by medical students. The instructors gave advice and checked for accuracy. The major findings were then summarized and presented.

Results

The population structure of Hauwtanon Tambon consisted of 61.1 % working population, 16.9 % aging population and 22.0 % childhood population. The male to female ratio was 1:1.1 and the dependency ratio (dependent : working population) was 1:1.57. The major occupations were labour and agriculture. The median income was 56,334 baht per year (Table 1). The household and environmental health characteristics are shown in Table 2. There were 88.6 % well ventilated houses, 64.0 % of the drinking water was rain water, 98.1 % of households used water-sealed latrines and 84.5 % of refuse disposal was by burning. The crude birth and crude death rates were 14.0 and 7.0 per 1000, respectively (Table 3). The natural population increase was 0.7 %. The general fertility rate was 52.9 per 1000, which is relatively higher than the national figure (32.5).⁽³⁾ The prevalence of diseases is shown in Table 4. The four major diseases were those of the cardiovascular system (17.5 %),

musculoskeleton system (12.6 %), respiratory system (11.9 %) and gastrointestinal system (10.5 %). The maternal and child health and family planning situation of Hauwtanon Tambon are shown in Table 5 and were : pregnant women attending ANC 97.7 % , but first trimester visit rates were only 57.1 % , birth weights less than 2,500 gm. 11.9 % , worse than national target (< 7.0 %), breast feedings for at least 4 months 65.1 % , and birth control 89.0 % , better than national targets of > 30.0 % and 77.0 % ,

respectively. The risk and healthy behavior of the population are shown in Table 6. The risk behaviors were : daily smoking 13.4 % , daily alcoholic consumption 3.7 % , consumption of incompletely cooked food 10.7 % , sexual contact with bartender 6.6 % and sedative addiction 2.3 % . The healthy behaviors included daily milk consumption for adults of 35 years and over 14.6 % , and annual health checkups 19.1 % .

Table 1. Sociodemographic characteristics of Huawtanon Tumbol, Panusnikom District, 1999.

Community Characteristic	Male N = 674	Female N = 755	Total N = 1,429
Age group			
1. Childhood population 0 –14 years	11.90	10.08	21.98
2. Working population 15 – 59 years	28.12	32.96	61.08
3. Aging population 60 years and over	7.14	9.80	16.94
Sex ratio			
Male : Female ratio		674:755	1:1.12
Dependency ratio			
Dependent : Working population		38.92:61.08	1:1.57
Occupation of the heads of the households (n = 316)			
Labour	41.14 %		
Agriculture	40.51 %		
Business	8.54 %		
Unemployed	5.38 %		
Government official	3.16 %		
Other	1.63 %		
Income			
Median income	56,334 Bahts/year		
Family size			
	4.5 (1429/317)		

Table 2. Household and environmental health characteristics of Hauwtanon Tumbol, Panusnikom District. n = 317

Household characteristics	Number
1. Good ventilation	281 (88.64 %)
2. Fair light	270 (85.17 %)
3. Drinking water source	
Rainy water	203 (64.04 %)
Well water	84 (26.50 %)
Water supply	12 (3.17 %)
4. Used water source	
Well water	164 (51.73 %)
Water supply	68 (21.45 %)
5. Excreta disposal	
Water – sealed latrine	311 (98.11 %)
Pit privy	6 (1.89 %)
6. Refuse disposal	
Burning	268 (84.54 %)
Dumping on land	22 (6.94 %)

Table 3. Vital statistics of Hauwtanon Tumbol Panusnikom District, 1999.

Health statistics	Rate per 1,000
1. Crude birth rate	14.04
2. Crude death rate	7.02
3. Natural increase	7.02
4. General fertility rate	52.91
5. Fetal death rate	0.00
6. Disability rate	21.03

Table 4. Prevalence rate of disease at Hautanon Tumbol, Panusnikom district, 1999.

Disease or symptom	Prevalence rate per 1000
1. Cardiovascular system	17.54
2. Musculoskeleton system	12.63
3. Respiratory system	11.93
4. Gastrointestinal system	10.50
5. Fever, weakness and fainting	10.50
6. Neurovascular system	9.82
7. Endocrine disease	9.12
8. Genitourinary system	4.91
9. Skin disease	4.91
10. Eye disease	4.91
11. Allergy	3.51
12. Accidents	2.81

Table 5. Some maternal and child health and family planning situation of Hauwtanon Tumbol compared with national target.⁽⁴⁾

MCH and family planning characteristics	Tumbol Hauwtanon	National target
1. Attend ANC (42/43)	97.7 %	-
2. First trimester visit n = 42	57.1 %	-
3. Birth weight < 2,500 gm. n = 42	11.9 %	< 7.0 %
4. Breast feeding at least 4 months n = 43	65.1 %	> 30.0 %
5. Birth control n = 161 Wives or husbands	89.0 %	77.0 %
6. Couples used permanent family planning	32.02 %	34.0 %
7. Livebirth rate by mother < 20 years old	20.93	< 10.0 %

Table 6. Risk and healthy behavior of population at Hauwtanon Tumbol, Panusnikom District, 1999.

Type of behavior	Number	Percent
1. Risk behavior		
1.1 daily smoking n = 1,115 (age 15 years and over)	149	13.36
1.2 daily alcohol consumption n = 1,115 (age 15 years and over)	41	3.68
1.3 consumption of incomplete cooked food n = 1429	153	10.71
1.4 sexual contact with bartender male age 15 years and over n = 504	21	6.63
1.5 drug addiction n = 1,115		
- sedative	26	2.33
- amphetamine	4	0.36
2. Healthy behavior		
2.1 daily milk consumption age 35 years and over n = 622	91	14.63
2.2 health checkup age 15 years and over n = 1,115	213	19.10

The health problems in this community can be summarized as follows:

1. Maternal and child health problems.
 - Birth weights < 2500 gm. 11.9 %
 - First trimester ANC only 57.1 %
2. Environmental health problem
 - Drinking water supply 3.2 %.
 - Burning refuse 84.5 %
3. Risk behavior problems
 - Daily smoking 10.4 %
 - Consumption of incompletely cooked food 10.7%
4. Disease problems
 - Cardiovascular system 17.5/1000
 - Musculoskeleton system 12.6/1000
 - Respiratory system 11.9/1000
 - Gastrointestinal system 10.5/1000

Discussion

The use of a proper water supply as a source of drinking water (3.17 %) was markedly low. This probably was due to inadequate distribution of water to the village. According to The Eighth Socioeconomic Plan, the water supply system should cover 40 % of villages. Excreta disposal by water- sealed latrines was 98.1 % and this is higher than national target (95 %). Birth weights of less than 2500 gm. (11.9 %) was higher than national target (< 7.0 %). Thus educating mothers for early antenatal care and good nutrition should be encouraged. The rate of first trimester visits was relatively low (57.1 %). Daily smokers among the working population was 13.4 % and was higher in adult males. Although this is lower than the Second National Health Examination Survey in 1996 (19.86 %),⁽⁶⁾ the national figure from the report of the Health and Welfare survey by National Statistics

Office of Thailand was 23.2 %⁽⁶⁾ in the same year. Antismoking programs are still necessary for rural villagers. The daily consumption of milk by the those over 35 should be encouraged as a healthy habit for prevention of osteoporosis in the aging population.

This community health survey provides baseline data for fifth – year medical students who will be assigned to community medicine field training projects and will plan community health problem solving projects for those communities.

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