AN ASSESSMENT OF MONGOLIAN HEALTH INSURANCE COVERAGE AMONG TWO VULNERABLE GROUPS: HERDSMEN AND STUDENTS

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Abstract

The government of Mongolia introduced social health insurance in 1994, which is compulsory for all public and private sector employees and low-income and vulnerable population groups. However, several statistical reports have shown that the Mongolian Health Insurance coverage is reducing year by year. The National Statistical Officer and the Ministry of Health (MOH) of Mongolia report the rates of health insurance coverage within 21 provinces, however there were no surveys exploring health insurance coverage more deeply.

The purpose of the study was to assess the association between knowledge, information of the Mongolian health insurance system and utilization of health care services among two vulnerable groups as herdsmen and students. A self-administered questionnaire was used. Study was carried out among herdsmen who live at the targeted five provinces (*Zavkhan, Khentii, Uvurkhangai, Dornod, and Bayankhongor Aimags*) and a private or public university students.

Respondents reported the following main reasons of being uninsured: insufficient finance and being too busy to go to the center to get health care services. Respondents answered that they have enough knowledge of Health Insurance Benefit Package services. Results indicated that the reform of the Mongolian Health Insurance System, some changes in the Health Insurance Law, and education programs among vulnerable groups, can lead to increase in Health Insurance coverage.

Key words: Mongolia, Health Insurance coverage, herdsmen, and students

Acronyms and Abbreviations

GDP	Gross Domestic Product
HI	health Insurance
HIF	Health Insurance Fund
MoH	Ministry of Health
MoFE	Ministry of Finance and Economics
SSIGO	State Social Insurance General Office

1. Introduction

Mongolia is a land locked country located in Central Asia. Its 2.5 million populations is sparsely dispersed over a land area of 1.5 million km^2. The country has 21 provinces called *Aimag* and more than 300 rural districts called *Soum*. Each *Soum* is administratively divided into four to six *Bag*, which is the lowest administrative unit in Mongolia (Figure 1). More than 50 percent of the populations are in urban areas and about 20 percent are cattle breeders engaged in nomadic animal husbandry. Average population density in Mongolia is about 1.4 persons per square kilometer and is very low in rural areas, which creates difficulties in access to healthcare. Mongolia is a low-income developing country with an annual GDP per capita of USD 450.0. Mongolia spends about 4.7 percent of GDP on health, which can be roughly translated as USD 25 per capita (WHO statistical annex, 2003).

In the early 1990s, Mongolia had a typical, centralized health care system modeled after the health care system of the Former Soviet Union. Following the collapse of the Soviet Union and the introduction of market reforms, Mongolia's publicly financed health care system entered a period of financial crisis marked by severely diminished funding levels. In an effort to reverse the damage, several important policy reforms have been introduced into the health system during the past decade, including as establishment of social health insurance, legalization of the private sector, including private pharmacies and participation of private hospitals, and the social health insurance system, privatization of public health facilities on a pilot basis (including contracted private management of some hospitals and public hospital space rented out to private practitioners), pre-paid capitation financing of family group practices (FGPs) to provide integrated primary health care in urban areas, administration of all public hospitals by governing boards, performance contracting with public health facilities in connection with the 2002 Public Sector Management and Finance Law, re-licensing of health professionals linked to completion of a specified number of

continuing education credits, mandatory accreditation of public and private hospitals, and contracting with doctors to work in remote areas (Sodnompil, 2003).

This is an impressive list of advancements matched by few developing countries. Despite the introduction of many important policy reforms, however, there is a perception that much remains to be done to establish an efficient, equitable and sustainable health care system providing good quality, cost-effective health care to all segments of the population.

Although many problems have been identified in the health system, initial discussions, and reviews of previous sector assessments suggest that the following three problems stand out as key sector problems, perhaps in descending order of urgency, poor quality and effectiveness of care throughout the health system, inefficient provision and utilization of health care at all levels (technical and allocative), and health care financial inequity (mainly between urban and rural areas, but also between the poor and the non-poor and between migrant and sedentary populations).

The level of total health expenditures from public resources in Mongolia, in terms of per capita allocation and as the percentage share of gross domestic products (GDP) are consistent with the current stage of development of the Mongolian economy and is relatively greater than in other countries with comparable level of economic development. The percentage of GDP spent on health has slightly increased in the last few years, reaching 4.7% in 2004. This has resulted in a per capita health expenditure of USD 20.60 in 2002. The main financing sources are the state budget (70.8% in 2004), health insurance fund (25.5%), out-of-pocket payments and other sources (3.7%) (Figure 2). Over 92.0% of health insurance funds are spent on in-patient care, 8.0% for outpatient care (WHO statistical annex, 2003).

The Health insurance (HI) system was developed in 1990. This main source of funding was a new approach for the population and for the country and the primary issue with healthcare financing is not only the lack of resources but also the poor performance of the

sector, namely quality, efficiency and effectiveness of services. The Mongolian Congress adopted the Health Insurance Law in July 1993 and since 1993, HI Law had been modernized and adapted four times due to social reforms, market stabilization efforts, population income, and the conversion of capacity of purchase (salesmanship). However, the percentage of the population that is currently covered by health insurance is inadequate, and this survey seeks to discover reasons why two uncovered vulnerable groups have low uninsurance rate.

2. Literature Review and Background

Many low-income developing countries are implementing health insurance systems to increase access to health services and to raise additional revenue for financing public health services. In many transitional economies, however, the introduction of health insurance systems in the past decade were often seen as the mobilization of additional financial resources for health care in response to the shortages of public funds through the transition period (WHO, 2000; Tsagaan-Uvgun, 2003).

The level of health care financing in Mongolia from public sources is reasonably high relative to per capita GDP and compared to other countries with similar level of economic development. Mongolia has introduced health insurance with significant financial support from the government. The social insurance system in Mongolia covers the Pension Insurance Fund, Benefit Insurance Fund, Work Injury Fund, Unemployment Fund and Health Insurance Fund (Social Insurance Law enacted in 1995). Health Insurance Fund makes prospective payments to hospitals in line with their anticipated levels of activity (Chimeddagva, Bolormaa, Altantuya, & Natsagdorj, 2003).

Japan and the Republic of Korea have developed comprehensive and universal social health insurance systems (Robert, Tomas, & Edward, 2001). Compulsory health insurance as a method of financing of health care can be found in Austria, Belgium, Germany, France, and Luxembourg, in Asia universal (compulsory) health insurance schemes have been

implemented in the Republic of Korea, Singapore, and China (Taiwan) (McLean, 2003; Klein, 2003; Sonin, 2002; Yuanli, 2004). The Philippines and Viet Nam initially focused on the organized formal sector and are currently working to expand health insurance coverage to the informal sector (Hussey & Anderson, 2003; Jane & Jordan, 2003). The achievements of these countries in terms of coverage, organization and management are complex. There is no single answer as to which insurance scheme works best. Countries will need to learn from each other's successes and failures and to design health insurance schemes that suit local conditions (Robert et al., 2001).

The fundamental aspects of Mongolian health insurance (HI) system are:

- The concept and the goals of the HI scheme implemented through State Social Insurance General Office (SSIGO) as a health services purchaser need to be refined and formulated in the form of an agreed strategic document for HI development,
- The existence of the two resource allocation systems for the public money, namely, HI scheme run by SSIGO, and budget allocation through MoH with no consistent health financing policies between them,
- The need to formulate objectives of the healthcare system financing from the public resources and the way these objectives can be achieved through joint HI and through MoH funding,
- The use of health financing mechanisms as policy tools for resource allocation to improve service quality, efficiency and access (Sonin, 2002).

Currently, the health insurance system in Mongolia is designed as a system of the social health insurance with universal entitlement, however implemented with incomplete actual coverage (Chimeddagva et al., 2003).

The key issue with the health insurance system is in its strategic role and its interaction with the budget funding of health care. Other issues, such as insufficient organizational

capacities, incomplete coverage, and the procedures of revision of payment rates (tariffs) in relation to "actual" service cost, seem to be of secondary order. These latter problems must be solved after the issues of coordination between the two financing systems are addressed.

Over the last decade since 1993, Mongolia has been implementing a HI scheme, which is a social HI, mandated by the government, based on the principles of social solidarity and universal coverage. For low-income segments of population, the government subsidizes contributions to the HI scheme (Samyshkin, 2004).

At its conception phase in 1993, the introduction of HI was broadly based on the need to increase the revenue base for the healthcare system (WHO, 2003; Tsagaan-Uvgun, 2003). Currently, however, the focus of the further development of the healthcare system should be shifting to the provision of quality, equitable, and cost-effective services within the funds available, and in coordination with other health financing institutions that use public money. The HI scheme must become an effective vehicle to achieve health sector goals through consistent resource allocation policies based on evidence (WHO, 2003; Sodnompil, 2003; Chimeddagva et al., 2003).

The 14th resolution by the National Council of Social Insurance approved a health insurance premium for an employed person 3% of salary, and premium for regular students, herdsmen, and the unemployed is 500 *tugriks* (Mongolian currency) equivalent to $0.42 in US dollars per month (in 2005, average USD 1=1180 *tugriks* (Chuluunbaatar, 2005)) per month. In this law, people who have health insurance premium are entitled to receive primary, secondary, and tertiary care, and those who do not pay the premium are not entitled to services unless they pay out-of-pocket for the care, including primary and emergency care (1998c).

Recently implemented health insurance has been mainly expensive hospital care. Therefore, the existing benefit package is being revised and changes to the health insurance

law are underway with the goal of improving primary health care through subsidizing Family Group Practices and other public health services. Starting in 1998, the Family Group Practices have recently been established in many areas to provide primary care services. In areas where they do not yet exist, such services continue to be delivered either by doctors working in hospital-based public health departments or by locally based physician's assistants in more remote, rural areas (WHO, 2000).

The health insurance system still needs a more comprehensive approach for further improvement to occur, including the following issues:

- Health insurance coverage decreased by 14% between 1997 and 2001 years, especially among herdsmen, students, and voluntary insurers (Sodnompil, 2003),
- Unequal health insurance benefit (no benefits 62%, in-patient care benefits 18%, and benefits other than in-patient care 20%) (Sodnompil, 2003),
- Lack of management capacity,
- Lack of relation between health care policy and health insurance financing.

Health insurance services are a market. Such a market however, may suffer from a number of problems, which are known as health insurance market failures (Bataa, 2004).

Another problem is those who are insured a) may tend to neglect their health since they know that costs of their care is covered by their insurance plan, or b) those who are insured tend to over use health services because their care will be paid by the third party (insurance company) (Yuanli, 2004; Bataa, 2004).

The country's problems center on the overall levels of poverty and ill health: and solutions must be developed accordingly. In 2002, 72.3% of family members have been covered by health insurance and 27.7% have not (Tsagaan-Uvgun, 2003).

Finally, a major problem exists throughout the whole of the Mongolian population regarding information about the availability and purchase of health insurance (WHO, 2000; Sodnompil, 2003; Tsagaan-Uvgun, 2003).

The *aim* of this survey was *to assess the association between knowledge, information of the Mongolian health insurance system and utilization of health care services among two vulnerable groups.*

Objectives were:

- To describe study participants by age, sex, income and education level;
- To assess knowledge, attitude and practices towards HI among herdsmen and students;
- To make recommendations to increase health insurance coverage of herdsmen and students.

The *research questions* of this survey were:

1. Is there an association between the *age, gender, education, and knowledge* of Mongolian adults and their awareness level of Health Insurance?
2. What is the frequency of utilization the health care services among herdsmen and student?
3. What are the *barriers* to get the primary, secondary care perceived by uninsured target population?

The *Null hypothesis* is:

There is no relationship between population's awareness level of health insurance and usage of the preventive health services and primary, secondary, and tertiary care.

3. Methods and Materials

3.1 Study setting

A formative research study was conducted in Mongolia within the framework of AUA MPH program during 2005.

During August 2005, herdsmen and university students were examined by a self-administered questionnaire. Considering the high prevalence of unemployment rate and a low rate of coverage of health insurance of five provinces (*Zavkhan, Khentii, Dornod, Uvurkhangai, and Bayankhongor Aimags*) were conducted in this survey (Ministry of Health & SSIGO, 2005).

3.2 Study population

The survey targeted two groups who currently do not pay into the health insurance system: 1) herdsmen and their family members in the economic regions, *Dornod, Khentii, Zavkhan, Uvurkhangai,* and *Bayankhongor,* and 2) students of private and public universities of Ulaanbaatar city.

Inclusion criteria were the following: uninsured herdsmen and students, 18-60 years old herdsmen living in the targeted rural areas, and 18-30 years old students studying at a private or public university in Ulaanbaatar city, and willing to participate.

3.3 Study design

To address the research questions an analytical quantitative cross-sectional survey was conducted due to lack of time, financing, and resources. The advantages of cross-sectional analysis include covering many people at a time and cost-effectiveness (Fink, 1993).

3.4 Sample size and sampling strategy

To estimate a proportion from a simple random sample, the required sample size was defined by using $n = \frac{z^2 \cdot p(1-p)}{d^2}$ formula, where ***p*** is the proportion of those individuals who have the desired characteristic (proportion of uninsured people), ***q*=1-p** is the proportion of those individuals who have a health insurance, ***d*** is desired level of precision (acceptable margin of error) (Abramson & Abramson, 1999).

For 95% desired Confidence Interval type I error will be a =0.05. Thus, the Za = 1.96 (two-sided). Maximum percent difference of the sample rate is 3%, so *d* was equal to 0.03. This study assumed that 30% (p=0.3) of Mongolian population were uninsured and 70% (q=1-p=0.7) were insured. The response rate was predicted to be about 95%, as the survey was conducted during the free time for them, and the questionnaire was not long. The sample size adjusted $n = 896.3 \cong 900$.

Using these five provinces, the researcher listed all *Soums* and selected five *Soums* from each province randomly. Each *Soum* has about 4-6 *Bags*, each *Bag* has 50-100 families and each family has approximately 4-5 members. The researcher included three *Bags* in the selected *Soums.* After that, the researcher selected randomly 30 families from each *Bag*. The total number of families was about 90 in each province, depending on the number of *Soums* and *Bags*. After the selection of the *Soums*, and *Bag*, the researcher obtained records of the herdsmen of those *Bags*, and selected the survey participants through Systematic Random Sampling. The total number of participants was 900 from targeted *Aimags;* this part of the survey was conducted from 25 July to 18 August.

The sample of students was selected from Ulaanbaatar city. The city had over 140 private and public universities. These universities had 117530 students in 2003, (Adyasuren, Bayarsaikhan, Chuluunbaatar, Dagvadorj, & Enkhjargal, 2004), and the researcher selected

100 students by a Quota sampling method. This part of the survey was conducted from the end of June to 2 August, in 2005 and the researcher obtained records around university campuses. Totally 900 herdsmen and 100 students were selected as the study population.

3.5 Survey instrument

A self-administered questionnaire was developed (Appendix 2 & 3) for the survey. It consists of two sections. First is demographic part, which contains questions about age, gender, background education, and monthly income level. Second section of the instrument contains fourteen main questions about health insurance coverage, prevalence of hospital visiting, reasons of being uninsured, and barriers to utilization of health services.

Prior to data collection, the questionnaire was pre-tested in the Health Sciences University of Mongolia and the *Songino-Kharkhan, Bayanzyrkh* districts of Ulaanbaatar city. Ten students and ten herdsmen participated in the pre-test. The pre-test revealed only minor problems with the questionnaire, which were addressed, and one question was changed.

Dependent variable was the awareness level of Health Insurance and it was measured by nominal scale. *Independent variables* were age, gender, income, and knowledge level of participants. They were measured by ordinal and dichotomous scale. All the variables were measured by the self-administered questionnaire (Table 1).

3.6 Data collection

Data collection was performed in home of herdsmen and from students was on the street of *Sambuu,* near universities campus. The questionnaires were not too long and taking about 10-15 minutes to complete. In each province, the survey took a week to complete because the herdsmen live far from center, far from each other, and they asked some questions about the purpose of the survey, about frequency of hospital visiting, and the barriers of utilization of health care services.

4. Ethical Consideration

The study protocol was reviewed and approved by the Institutional Review Board Committee on Human Research of the American University of Armenia.

The proposed study did not touch any sensitive issues, and the participants could stop their participation at any moment. During the performance of the survey, written consent from participants was obtained.

5. Analysis

Statistical analysis was performed using SPSS 11.0 program. The categorical data were summarized using descriptive statistical analysis, frequencies, *t* test analysis, and *chi square* test. *Chi-square* and *t* tests were carried out to describe statistically significant differences between different age, gender, socio-economic status and education groups.

6. Result

Initially 900 herdsmen and 100 students were selected to participate in survey. Six of them (five herdsmen and a student) refused to participate during survey due to being busy. The *response rate* was 99.4%.

6.1 Demographic characteristics

Totally 900 herdsmen and 100 university students participated in this survey. About 59.5% of the herdsmen were male, and 40.5% female. The mean age of herdsmen was 35.7 (35.7±10.9), and 39.3% of herdsmen had an eight years of school education, 4.5 percent of them had graduated a Mongolian public or private university, and 58.8 percent of the herdsmen had the poorest income level per month (lower than 20 000 *tugriks*) (Table 2).

The mean age of students was 20.9 years old (20.9±2.5), 65.0% of those students studied at a public university of Mongolia and 73.0% were female (Table 3).

6.2 Reason of Uninsured and Knowledge of Health Insurance

The herdsmen received HI information especially from health providers and television, however, the main reason of being uninsured was not having enough money by cash (35.5%), and living far away from center, being busy to go to the *Soum's center* to pay for Health Insurance (41.1%).

About 99.2% (n=893) of participants answered the question about HI premium; 30% reported that the premium was "admissible" and 38% reported that the premium was "very high", and only 6% of participants reported that the health insurance premium was less than other insurance premiums, such as private health insurance (Table 4). Furthermore, herdsmen paid the same HI premium independent of the number of their owned livestock.

The students (n=100) receive information about the HI from all sources equally, and the main information sources were television (15%), family members (12%), and health providers (9%).

The knowledge of Health Insurance benefit package, generally 80% of students knew about that. Nowadays students had barriers to health care services because of being uninsured.

In addition, 55% of students answered that Health Insurance premium was "admissible", 14% "very high", and 9% the same as for herdsmen (Table 5).

6.3 Frequency of hospital visiting and barriers to health care services

About 53% of students and 42% of herdsmen reported that they visited hospitals 1-2 times per year (Table 4 & 5).

The effect of HI advertisement among students was mostly insufficient (49%), and they received about that information from television.

Uninsured herdsmen reported about many barriers to obtaining good quality care: poor quality of care and deficient number and quality of medical equipments (42.7%), financial barriers (30.3%), and poor skills and poor knowledge of medical professionals (30.1%).

There is Health Insurance advertisement[1] in rural areas; the quality and efficiency of these processes were reported to be not good.

Students did not go to the health center for receiving primary and secondary care due to economic and behavioral problems. Other reason of being uninsured was the poor quality (38%) of Mongolian health care services and absence of free time (86.2%) to go to health care centers.

7. Discussion

Overall, uninsurance rates slightly increased in Mongolia especially among people aged 20-35 years. The prevalence of uninsured among Mongolian population was about 30% in 2004 (Ministry of Health et al., 2005). Unfortunately, no studies examining the characteristics of uninsured population were conducted in Mongolia.

The statistical record review demonstrated that the total health insurance coverage was slightly increased year by year, but among them the percentage of herdsmen and students have been actually low in Mongolia (Ministry of Health et al., 2005) (Table 6).

As a result of other countries such as China and Laos studies showed, between 26 percent and 31 percent of households in each income bracket were uninsured; 28 percent of poorest households were actually not insured (Ensor, 1997; Abel-Smith, 1992; Shi, 1998; Yuanli, 2004). Among the 16659 uninsured persons, 80 percent of heads of households had a primary school education. Only 13 percent of university graduate household heads were uninsured, compared to 33 percent of primary school educated in China (2005).

[1] A notice, such as a poster or a paid announcement in the print, broadcast, or electronic media, designed to attract public attention or patronage.

The other cause of uninsured among the vulnerable group is due to lack of information, and during this survey, the knowledge of Health Insurance was assessed. During the 1993 economic crisis, the demand for health cards increased significantly among the uninsured who could not afford out-of-pocket health care.

Families lacking health insurance is a persistent problem in the Mongolia and also in the United States (Butler, 2004). The uninsured are required to pay all medical bills in full in both public and private hospitals. In public hospitals, an exemption mechanism through social workers is available for those unable to pay. An uninsured patient who cannot afford a bill of 62 000 *tugriks* (1998a) per admission could damage the household financial security. This accounts for 25.8 percent of the household annual income (1998b).

According to the Kaiser survey, about two-thirds of the non-elderly uninsured in the US are from low-income families (less than 200 percent of the poverty level, or approximately $29 000 for a family of three) (kaizer Commission, 2005). In this survey, also about two-thirds of the uninsured were from low-income families (58.8 percent of herdsmen were less than 20 000 *tugriks* monthly income).

The usage of the health care services was insufficiently, as the frequency of receiving health care services were about 1-2 time per year among the two vulnerable groups. The insured are able to obtain better primary care than the uninsured, and the privately insured are able to obtain better primary care than the publicly insured.

Regarding the issue of the health insurance premiums, most of the participants answered that the premium was not too high. Therefore, the health insurance premium was not reported as the cause of being uninsured.

8. Study Limitations

The study instrument was a self-administered questionnaire and any data collection method that relies on self-report is subject to recall bias. The instrumental bias may be

created by the questionnaire; questions or statements in the questionnaire might not be understood in a right way. By the help of the research team and checking questionnaires for completeness after their completion has minimized this bias.

The other limitation of this study is the possibility that the participants had over reported the reason of uninsured or underreported the barriers to utilization of health services. The researcher tried to minimize this type of bias by ensuring the anonymity of provided information.

9. Conclusions and Recommendations

Most of the issues identified with the HI system in Mongolia are mainly related to the design of the system and then to the limited capacity of the implementing agencies. This study was very important, as it was the first step in investigating the reasons of being uninsured and can be used to inform policy discussions regarding the Mongolian health insurance system. Specifically, results about the reasons for being uninsured, lack of knowledge of potential benefits of health insurance and barriers to obtaining health care can be used by the MoH to target education and develop financing mechanisms for the vulnerable groups. The student investigator makes the following recommendations to the Ministry of Health of Mongolia based on the findings of the current study:

- To improve the Health Insurance Law for universal coverage;
- To develop and promote the Private Health Insurance sector and to develop a special policy to decrease the taxes currently imposed on the private health sector;
- To reduce the percentage of Health Insurance premiums of the employers and students.

As the survey revealed that most of the herdsmen and students heard about the Health Insurance and the basic Benefit Package, however they did not know how to use this

information effectively for their life and health. To address this issue the student investigator recommends:

- To continually develop Health Insurance advertisements, education programs among students and herdsmen (face to face format would be preferable), and to increase the awareness of Health Insurance benefit package;
- To conduct staff education programs for central and regional personnel of the Ministries of Health, Education and Culture.

Regarding the barriers to health care services, it is recommended:

- To set the Health Insurance premiums of herdsmen by considering the number of livestock they own,
- To improve the quality of health care services, and to increase investment in modern medical equipment and technology;

Generally, this study was the first step in investigation of uninsured situation in Mongolia, and there are many fields needed to investigate for the further research process.

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Tables

Table 1: Operational definition of variables

	Variables	Operational definition	Scale
Section A General Information			
1	Province	Name of place where respondent live in	Nominal *Dornod* *Khentii* *Bayankhongor* *Uvurkhangai* *Zavkhan*
2	Age	Age of respondents as reported by themselves and will be categorized in seven years intervals beginning with age 18 and ending at 60 years. Students under 18 are excluded per the exclusion criteria and those respondents over 60 years will not be included because they do not have to pay for health insurance in Mongolia's system.	Ordinal 18-25 26-33 34-41 42-49 50-57 58-60
3	Gender	Gender of respondent as reported themselves	Dichotomous Female Male
4	Number of people in family	Number of people who live in the same family	Ordinal 1-2 3-6 7 and more
5	Education	Number of years of school attended. It will be determine about people's knowledge level of HI	Ordinal None Primary (4 or less) Secondary (4-8 years) High school (9-10 years) College (10-14 years) University (14 and more)
6	Income	Monthly income of family and the monthly HI premium is 500 *tugriks* (6000 *tugriks* per year) for each targeted group. It will be determine people's poverty of payment.	Ordinal Less than 20000 *tugriks* 20000-44000 *tugriks* More than 45000 *tugriks*
Section B Information Related to Health Insurance Coverage			
7	Health insurance	Respondent's answer whether or not to insure	Dichotomous Yes No
8	Duration of HI coverage	Respondent's answer whether or not to insure continually	Ordinal Since 1994 8-10 years 4-7 years

			1-3 years Less than 1 year
9	The source of information	It will be determined by how respondents answer to question related to the source of information about health insurance	Nominal Television Radio Newspaper Magazine, book Health workers Friends, relatives Other (specify)
10	Main reasons for being uninsured	It will be determined by why respondents answer to question on reason of unused health care	Nominal I have not money I cannot go to the health centre I never heard about health insurance I usually treat myself I have friends who can treat me I am healthy and do not need health insurance I am too young and do not need health insurance I am afraid to go to the hospital I think quality of health care in Mongolia is poor Other reason (specify)
11	Knowledge of benefits of health insurance	It will be determined by respondents answer to question on knowledge of benefits and how they are receive benefits	Nominal I can have inpatient care if I need it I have a chronic disease (like diabetes, cancer or TB) and I need health care If I am sick, I know that I can go to the doctor I can receive immunizations I can receive medications I can see the dentist when I need one Other benefits I do not think there are any benefits I do not know what the benefits are
12	People's belief in usefulness of health insurance	It will be determined by how respondents answer to question on belief in usefulness of health insurance	Dichotomous Yes No
13	Hospital visiting frequency	It will be determined the use of primary, secondary, and tertiary health care among targeted per year vulnerable groups	Ordinal 1-3 (less) 4-6 (medium) 7-10 (relatively normal) 10-12 (high)
14	Barriers to obtaining health care services	It will be determined by how respondents answer to question on use of health care	Nominal I do not have health insurance Health care is too expensive

			Health care facilities are too far away The quality of care is poor The health care facilities are poor The skills and knowledge of Mongolian health professionals are poor Other reason (specify)
15	Expectation to obtain health insurance	Respondents answer whether or not involve to health insurance	Dichotomous Yes No
16	Advertisement of HI	In the targeted province whether or not demonstrated the HI advertisement	Dichotomous Yes No
17	Effect of HI advertisements	Determine the effect of HI advertisement whether or not was efficient	Dichotomous Good Medium Insufficient
18	Premium of HI	People whether or not to pay the HI premiums and participant's feeling	Dichotomous Very high Admissible Relatively less I cannot answer
19	An additional health service for the health services package	It will be determine by which health services do people like to include for the health services package	Nominal Dental care Laboratory analysis Other (specify) I cannot answer

Table 2: Relationship between education and monthly income level, among herdsmen

		income						Total	
		<20000		20000-44000		>45000			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %
education level	unlearned	44	8.3%	34	10.8%			78	8.7%
	lower educated	131	24.9%	48	15.2%	9	16.7%	188	21.0%
	low educated	232	44.0%	112	35.4%	8	14.8%	352	39.2%
	high educated	100	19.0%	95	30.1%	10	18.5%	205	22.9%
	special educated	15	2.8%	14	4.4%	7	13.0%	36	4.0%
	graduated	5	.9%	13	4.1%	20	37.0%	38	4.2%
Total		**527**	**100.0%**	**316**	**100.0%**	**54**	**100.0%**	**897**	**100.0%**

Table 3: Gender of students by university

		type of university				Total	
		private		public			
		Count	Col %	Count	Col %	Count	Col %
gender	male	8	22.9%	19	29.2%	27	27.0%
	female	27	77.1%	46	70.8%	73	73.0%
Total		**35**	**100.0%**	**65**	**100.0%**	**100**	**100.0%**

Table 4: Relationship between frequency of hospital visiting and Health Insurance premiums among herdsmen

		HI premium								Total	
		very high		admissible		low		I can not compare			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
frequency of hospital visiting	0	106	32.7%	63	23.6%	6	10.7%	52	24.1%	227	26.3%
	1	96	29.6%	102	38.2%	16	28.6%	87	40.3%	301	34.9%
	2	83	25.6%	36	13.5%	16	28.6%	34	15.7%	169	19.6%
	3	15	4.6%	32	12.0%	6	10.7%	24	11.1%	77	8.9%
	4	1	.3%	19	7.1%			1	.5%	21	2.4%
	5	6	1.9%	9	3.4%					15	1.7%
	6					4	7.1%	4	1.9%	8	.9%
	7							2	.9%	2	.2%
	8	5	1.5%					9	4.2%	14	1.6%
	9	12	3.7%	6	2.2%					18	2.1%
	10					8	14.3%			8	.9%
	15							3	1.4%	3	.3%
Total		**324**	**100.0%**	**267**	**100.0%**	**56**	**100.0%**	**216**	**100.0%**	**863**	**100.0%**

Table 5: Relationship between frequency of hospital visiting and Health Insurance premiums among students

		about HI premiums								Total	
		very high		admissible		low		I cannot answer			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
frequency of hospital visiting	0	2	14.3%	8	14.5%	2	22.2%	1	4.5%	13	13.0%
	1	5	35.7%	28	50.9%	2	22.2%	11	50.0%	46	46.0%
	2	5	35.7%	13	23.6%	3	33.3%	5	22.7%	26	26.0%
	3			4	7.3%			3	13.6%	7	7.0%
	4	2	14.3%	1	1.8%					3	3.0%
	5					2	22.2%			2	2.0%
	6							2	9.1%	2	2.0%
	7			1	1.8%					1	1.0%
Total		**14**	**100.0%**	**55**	**100.0%**	**9**	**100.0%**	**22**	**100.0%**	**100**	**100.0%**

Table 6: Coverage of population by insurance programmes

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Population	2201537	2234650	2266884	2296870	2327913	2359008	2390495	2413026	2458968	2504023
Total insured	**1416831**	**1592398**	**2030857**	**2160812**	**2217438**	**1977763**	**2030241**	**2049669**	**1963161**	**1984720**
State subsidised groups	1045083	1116875	1466413	1543699	1614031	1369774	1419368	1441184	1439544	1373042
Working individuals	298049	359700	384641	419408	538213	532481	390822	397842	316390	458459
Students							17899	18772	19336	28240
Herders							137264	132506	126683	124924
Voluntary insured	73699	115823	179803	197705	65194	75508	64888	59365	61208	55
Coverage as % of population	**64.36**	**71.26**	**89.59**	**94.08**	**95.25**	**83.84**	**84.93**	**84.94**	**79.84**	**79.26**

Source: SSIGO, MOH 2003

Table 7: Additional health services which the participants want to cover of the Basic Benefit Package

		Basic Benefit Package						Total	
		Dental care		Laboratory analysis		I can not know about that			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %
herdsmen	male	172	58.1%	194	63.2%	167	57.6%	533	59.7%
	female	124	41.9%	113	36.8%	123	42.4%	360	40.3%
Total		**296**	**100.0%**	**307**	**100.0%**	**290**	**100.0%**	**893**	**100.0%**
student	male	8	22.2%	8	25.8%	11	33.3%	27	27.0%
	female	28	77.8%	23	74.2%	22	66.7%	73	73.0%
Total		**36**	**100.0%**	**31**	**100.0%**	**33**	**100.0%**	**100**	**100.0%**

Table 8: Health financing figures

Health expenditures by sources	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
State budget	6621	6296	8991	15269	19957	16711	21716	29524	35891	37154,5	42811,3
Health insurance		4876	7488	9861	9622	13714	11340	13177	13785	16529	15469
User fees	130	579	452	924	1572	1964	2602	3250	3420	4280	3812
Total Health Expenditure	**6751**	**11751**	**16931**	**26054**	**31151**	**32389**	**35658**	**45951**	**53096**	**57964**	**62092**

Source: Health Sector 2002, 2003, SSIGO 2003

Table 9: HI revenues and expenditures, million TG

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Health Expenditures from HI	**3830**	**6455**	**9977**	**9847**	**13279**	**12295**	**14055**	**15660**	**17376**	**19144**
Inpatient care	**3415**	**5617**	**9131**	**9463**	**12963**	**11954**	**13422**	**13831**	**15715**	**15569**
Public hospitals	3345	5417	8827	9160	12468	11310	12635	12773	14107	13943
Private hospitals	38	70	43	85	295	472	559	807	1317	1283
Sanatona	32	130	261	218	200	172	229	252	291	343
Outpatient care	**402**	**671**	**730**	**234**	**154**	**149**	**431**	**798**	**1173**	**3088**
Drug reimbursement	93	210	219	196	124	149	252	379	425	382
FGP funding							8	3	141	1609
Hospital outpatient care	309	461	510	38	31		171	416	608	1098
Admin cost of HIF	**12.9**	**167.6**	**115.6**	**150.1**	**161.3**	**191.8**	**201.5**	**1030.4**	**487.9**	**486.3**
HI revenue	**4879.6**	**7487.8**	**9136.3**	**11399.5**	**14127.3**	**14448.1**	**18157.0**	**19914.3**	**22252.6**	**24551.4**
Working individuals	2195	4176	5296	7087	7564,0	8991	12045	13896	16077	18634
Voluntary insured	172	299	480	419	500	600	566	487	497	
State subsidised groups	2508	2879	3360	3894	6064	4858	4857	4857	4857	4857
Other revenues	5	135					41	122	245	239
Students							46	56	70	87
Herders							603	496	508	734

Source: Health Sector 2002, 2003

Table 10: Health insurance coverage by 21 provinces and Ulaanbaatar city, 2003

	Provinces, city	# of pop	# of under 16 years children	% of pop	government				Subtotal	People, who are working in private sector	People, who are having own business	Herdsmen	Students	Unemployed	Prisoner	Voluntary insurers	Total
					Pensions	mothers with infants	servicemen	poor									
1	Arkhangai	96408	45609	47.31	9551	3148	0	1932	60240	5297	0	10685	360	6559	28	570	83739
2	Bayan-Ulgii	96989	44744	46.13	6940	256	393	1054	53387	6752	0	18343	250	700	68	0	79500
3	Bayankhongor	84364	38346	45.45	6944	307	6	311	45914	4338	9	19066	935	2706	6	0	72974
4	Bulgan	61563	21600	35.09	5949	1105	136	1092	29882	3392	0	3817	441	622	10	0	38164
5	Gobi-Altai	64732	26412	40.80	5839	521	170	1020	33962	4493	3	12566	950	1223	12	0	53209
6	Dornogbi	44976	17634	39.21	3286	320	1181	178	22599	8446	0	6241	1296	8477	0		47059
7	Dornod	73035	29596	40.52	7189	2733	965	1600	42083	7759	126	5371	920	6081	222	0	62562
8	Dundgobi	52074	20017	38.44	5325	770	0	399	26511	3752	27	12293	1045	4660	0	0	48288
9	Zavkhan	83516	27247	32.62	5465	474	105	132	33423	6395	72	18804	1454	6426	46	0	66620
10	Uvurkhangai	113642	48662	42.82	11800	2201	126	1704	64493	6622	0	15462	400	3584	256	0	90817
11	Umnugobi	46720	18049	38.63	4840	1131	609	157	24786	3830	0	10514	240	2481	0	0	41851
12	Sykhbaatar	54972	20677	37.61	7878	240	400	1108	30303	2823	1	1291	736	1291	0	0	36445
13	Selenge	99830	40431	40.50	6350	1175	350	522	48828	11216	8	1999	1644	14584	713	0	78992
14	Tov	96176	50978	53.00	11745	685	744	1661	65813	10440	43	5956	727	4347	0	0	87326
15	Uvs	83318	37423	44.92	7500	3615	445	1832	50815	5673	127	12295	416	2193	0	0	71519
16	Khovd	89664	36633	40.86	5916	2149	414	478	45590	4101	5	17435	1859	2847	77	0	71914
17	Khuvsgul	123156	55441	45.02	9772	2008	389	1908	69518	5896	227	26215	1759	7888	186	884	112573
18	Khentii	67929	29749	43.79	7194	1929	65	1241	40178	6815	0	4000	110	1294	0	0	52397
19	Darkhan	84317	27144	32.19	7625	1314	0	345	36428	19082	0	648	1965	7159	0	0	65282
20	Orkhon	79004	28233	35.74	6918	2509	370	469	38499	15880	3	543	948	0	62	2236	58171
21	Gobisymber	12979	4626	35.64	1228	218	0	223	6295	2484	25	755	0	984	392	0	10935
22	UB	735394	292786	39.81	81348	11192	5639	2866	393831	161075	696	139	8063	0	1132	27100	592036
	Total	***2344758***	***962037***	***41.03***	***226602***	***40000***	***12507***	***22232***	***1263378***	***306561***	***1372***	***204438***	***26518***	***86106***	***3210***	***30790***	***1922373***

Figures

Figure1: The administrative structure and selected *Aimags* of Mongolia

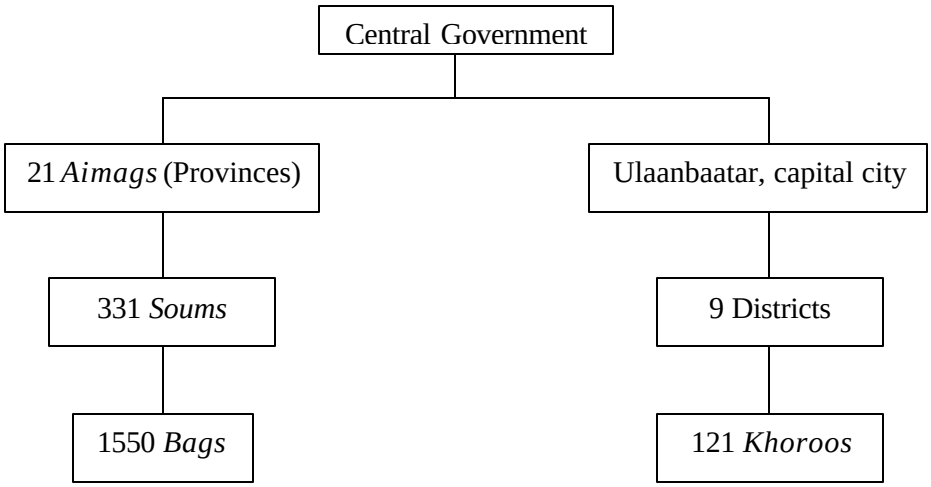
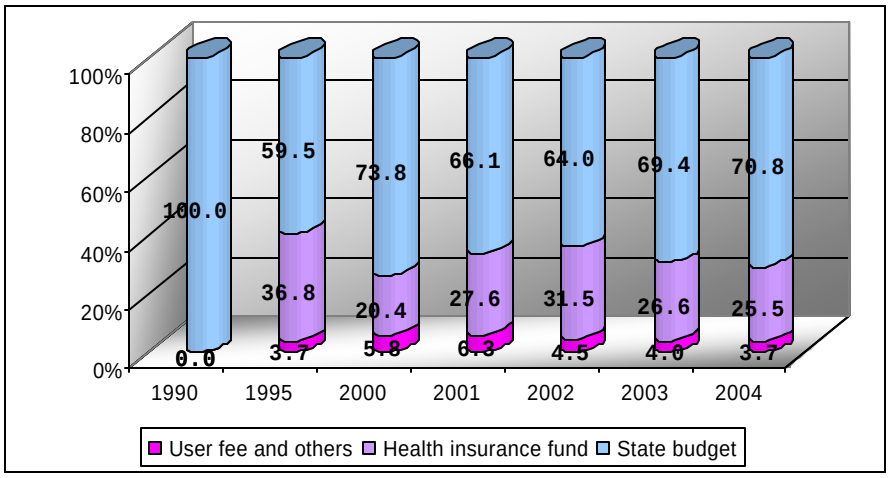
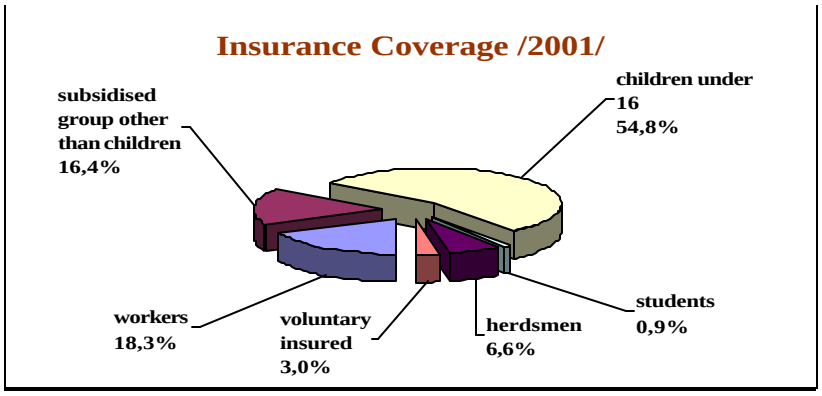


Figure 2: Financing sources of state sector, by percentage, and by years



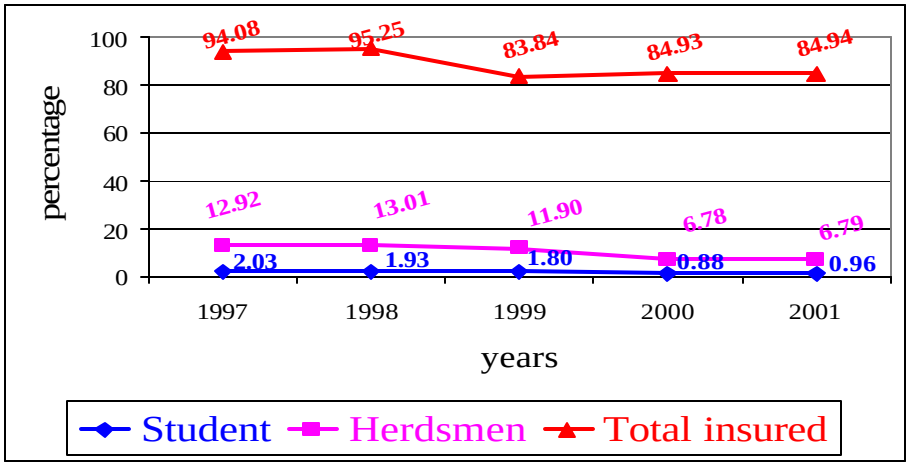
Source: Health Sector 2002, 2003, SSIGO 2003

Figure 3: Health Insurance Coverage



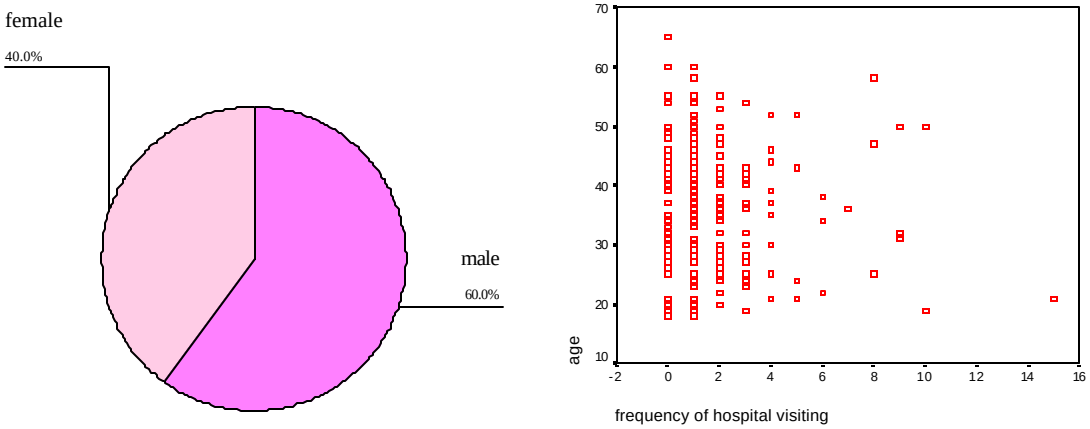
Source: Health sector 2001

Figure 4: Health Insurance Coverage of herdsmen, student and voluntary insured



Source: Health sector 2001

Figure 5: The comparison of gender and hospital visiting by age among herdsmen



Appendix 1 Consent form for participants

American University of Armenia
Institutional Review Board # 1/Committee On Human Research
College Of Health Sciences Subcommittee For Student Thesis

CONSENT FORM TEMPLATE

Title of Research Project: ***An Assessment of Mongolian Health Insurance Coverage Among Two Vulnerable Groups; Herdsmen and Students***

Explanation of Research Project

I am Munkh-Erdene, a second years student of the AUA School of Public Health. I am pleased to invite you to participate in my study. The study is aiming to assess the association between knowledge, information of the Mongolian health insurance system and utilization of health care services among herdsmen and students. The research group is going to collect by self-administered questionnaire.

We would like to ask you some questions regarding health insurance. Your participation is voluntary and very important for our study. Your name will not appear in the questionnaire, therefore no one will link you to the responses, and you can stop being in this study at any time. You should ask the person in charge listed below any questions you may have about this research study and you should ask him/her questions in the further if you do not understand something about the study.

With your questions regarding to our study you should contact Mashbadrakh.B by telephone number: /976-11/ 313207, and Delgermaa.V by telephone number /976/ 99198170. They will answer your questions regarding the study.

The questionnaire itself will last 20 minutes. We anticipate your responses.
Thank you very much in ADVANCE.

Participator: _____

Date: _____

Appendix 2 Questionnaire for herdsmen

Please answer the following questions by putting circles, and filling in the blanks.

<u>Section A</u> General Information

1. Province (*Aimag/soum/bag*)

    1. *Khentii*_____ *Soum* _____ *Bag*

    2. *Zavkhan*_____ *Soum* _____ *Bag*

    3. *Dornod* _____ _____ *Soum* _____ *Bag*

    4. *Uvurkhangai*_____ *Soum* _____ *Bag*

    5. *Bayankhongor*_____ *Soum* _____ *Bag*

2. What is your age? _____

3. Gender:

    1. Male

    2. Female

4. Number of people in the family: _____

5. What is the highest level of your education that you have (in completed years)?

    1. None

    2. Primary (4 or less)

    3. Secondary (4-8 years)

    4. High school (9-10 years)

    5. College (10-14 years)

    6. University (14 and more)

6. How much monthly income does your family have?

    1. Less than 20000 *tugriks*

    2. 20000-44000 *tugriks*

    3. More than 45000 *tugriks*

7. Could you write the number of stocks?

. . . . . *Bod* (horse, camel, and cow) . . . . *Bog* (goat and sheep)

Section B Information Related to Health Insurance Coverage

8. Do you have Mongolian health insurance?

1. Yes

2. No (If you have not been covered by health insurance answer question 11.)

9. How long have you had Mongolian health insurance coverage?

1. Since 1994

2. 8-10 years

3. 4-7 years

4. 1-3 years

5. Less than 1 year

10. Where did you get information on how to obtain the Mongolian health insurance?

1. Television

2. Radio

3. Newspaper

4. Health workers and physicians

5. Family members and kin

6. Friends, relatives

7. Neighbor hood

8. Other (specify) _____

11. If the answer to question 8 was no, what is the reason for being uninsured?

1. I have not money

2. I cannot go to the health centre

3. I never heard about health insurance

4. I usually treat myself

5. I have friends who can treat me

6. I am healthy and do not need health insurance

7. I am too young and do not need health insurance

8. I am afraid to go to the hospital

9. I think quality of health care in Mongolia is poor

10. Other reason _____

12. If you have Health insurance, what are the benefits of Mongolian health insurance do you know?

1. I can have an inpatient care if I need it.

2. I have a chronic disease (like diabetes, cancer or TB) and I need health care.

3. If I am a sick, I know that I can go to the doctor.

4. I can receive immunizations.

5. I can receive some free medications.

6. If I am a pregnant, I will free cover to the health services.

7. Other benefits _____

8. I do not know what other the benefits are

9. If I have a health insurance, I can analyze some laboratory analysis.

13. What do you think the Mongolian health insurance is useful?

1. Yes

2. No

14. How many times do you go to the hospital a year? (The average number of hospital visit per year.)

…….

15. What do you think are the barriers to obtaining good health care in Mongolia?

1. I do not have health insurance
2. Health care is too expensive
3. Health care facilities are too far away
4. The quality of care is poor
5. The health care equipments are poor
6. The skills and knowledge of Mongolian health professionals are poor
7. Other reason _____

16. If you are not covered by the Mongolian health insurance, do you want information about how to obtain health insurance? If the answer is yes, information will be provided.
    1. Yes
    2. No
17. Had you had the Mongolian health insurance advertisement in your provinces?
    1. Yes
    2. No
18. Could you analyze the effects of HI advertisements?
    1. Good
    2. Medium
    3. Insufficient
19. What do you think about the HI premium?
    1. Very high
    2. Admissible
    3. Relatively less
    4. I cannot answer
20. Could you write a health service, which is you want to get by Mongolian health insurance.

    ……

Appendix 3 Questionnaire for herdsmen, in Mongolia

Ýð¿¿ë Ìýíäèéí Äàâòàãäñàí òàëààðõ ñóäàëãàà

Ýíýõ¿¿ ñóäàëãàà íü õ¿í àìûí Ýð¿¿ë ìýíäèéí äàâòàãäë (Öàâøèä ÝÌÄ ãýíý.)-ûí òàëààðõ ìýäëýã áîëîí Ýð¿¿ë ìýíäèéí äàâòàãäëä õàìðàãäàëòûí òàëààðõ ñóäàëãàà þì. Ñóäàëãààíû ¿ð ä¿í íü “Èðãýíèé Ýð¿¿ë Ìýíäèéí Äàâòàãäñàí òóõàé” õóóëèéí õýðýãæèëòýíä ñóóðü ñóäàëãààíû ¿íäýñ íü áîëîí. Áèä òàíààñ Ýð¿¿ë ìýíäèéí äàâòàãäñàí òàëààð çàðèì íýãýí àñóóëòûã àñóóõ áºãº°ä òàíû îðîëöîí íü ñàéí äóðäûíõ áàéíà. Áèäíèé ñóäàëãààíä òàíû îðîëöîí ÷óõàë à÷ õîëáîãäîëòîé þì. Ñóäàëãààíä îðîëöîã÷ òà íýðýý áè÷èõ øààðäëàãàã¿é áºã°ä õýí íýãýí õ¿íèé îðîëöîí, í°ë°°ë°ë áàéõã¿é áàéõ áîëíî.

Áèäíèé àæëä òóñàëæ ñóäàëãààíä õàìðàãäàõ áîëîìæòîé òàíä áàÿðëàëàà.

Àñóóëò

Àñóóëòûí ºìí°õ äóãààðûã äóãóéëæ òýìäýãëýíý ¿¿.

<u>À. Åðº íõèé ìýäýýëýë</u>

1. Òàíû îðøèí ñóóãàà ãàçðûí õàðúÿàëàë (àéìàã/ñóì/áàã)
    1. Õýíòèé àéìàã _____ ñóì _____ áàã
    2. Çàâõàí àéìàã _____ ñóì _____ áàã
    3. Äîðíîä àéìàã _____ ñóì _____ áàã
    4. ªâº ðõàíãàé àéìàã _____ ñóì _____ áàã
    5. Áàÿíõîíãîð àéìàã _____ ñóì _____ áàã
2. Òàíû íàñ: _____
3. Òàíû õ¿éñ:
    1. Ýðýãòýé
    2. Ýìýãòýé
4. Òàíû àì á¿ëèéí òîî: _____
5. Òàíû áîëîâñðîëûí ò¿âøèí (ò°ãññ°í îíîð)
    1. Áîëîâñðîëã¿é
    2. Áàãà áîëîâñðîë (4 áà ò¿¿íýýñ áàãà æèë)

3. Á¿ðýí áóñ äóíä áîëîâñðîë (4-8 æèë)

4. Á¿ðýí äóíä (9-10 æèë)

5. Òóñãàé äóíä (10-14 æèë)

6. Äýýä áîëîâñðîë (14 áà ò¿¿íýýñ äýýø æèë)

6. Òàíàé ºðõ ãýðèéí ñàðûí äóíäàæ îðëîãûí õýìæýý

1. 20000 òºãðºãººñ áàãà

2. 20000-44000 òºãðºã

3. 45000 òºãðºãººñ äýýø

7. ?? ????? ?????? ??? (??????????? ????? ??.? ???? ?????? ?? ???? ??? ?? ?????? ???? ?? ?????? ?????? ?????? ????? ?????????? ?? ???? ???????????? ?? ???????? ?????.)

. . . . . ??? . . . . . ???

<u>Â. Ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäàëòûí òàëààðõ ìýäýýëýë</u>

8. Òà ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäñàí óó?

1. Òèéì

2. ¯ã¿é (Õýðâýý òà õàìðàãäàà¿é áîë 11-ð àñóóëòàíä øóóä õàðèóëíà óó.)

9. ?? ??? ?? ? ?????? ???????? ????? ?????? ????????? ????? ??? ???????? ????? ?? ????? ???????? ? ?????????? ????????? ?????? ???

1. ?????????????? ???????????? ?????.

2. ???????? ???????????? ???????? ????????? ????????? ??????.

10. Ýð¿¿ë ìýíäèéí äààòãàëûí òàëààðõ ìýäýýëýë áîëîí õýðõýí õàìðàãäàõ òàëààðõ ìýäýýëëèéã òà õàíààñ àâäàã âý? (???????????? ??? ????????????????? ??.)

1. Òåëåâèçýýð

2. Ðàäèî áóþó õ¿ëýýí àâàã÷ ààð

3. Ñîíèí, õýâëýëýýñ

4. Ýì÷, ýð¿¿ë ìýíäèéí àæèëòíóóäààñ

5. Àõ ä¿¿, õàìààòàí ñàäàí, ãýð á¿ëèéí õ¿ì¿¿ñýýñ

6. Àíãè õàìò îëîí, íàéçóóäààñàà

7. Õºðø, õîò àéëûí õ¿ì¿¿ñýýñ

8. Áóñää (òîäîðõîéëîí áè÷íý ¿¿.) _____

11. Õýðâýý òà 8-ð àñóóëòàíä ¿ã¿é ãýæ õàðèóëñàí áîë ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäàòã¿é áàéãàà øàëòãààíàà äóðüäàíà óó. (???????????? ??? ?????????

???????? ??.)

1. Äààòãóóëàõàä ìºíãº õ¿ðýëöýõã¿é áàéíà.
2. Áè òýð á¿ð ñóì, àéìãèéí òºâ ð¿¿ ÿâæ àìæäàãã¿é
3. Áè ýð¿¿ë ìýíäèéí äààòãàëûí òàëààð õýçýý ÷ ñîíñîæ áàéãààã¿é
4. Õýðâýý áè ºâäñºí áîë ººðèéãºº ýì÷èëäýã.
5. Íàìàéã ºâäñºí ¿åä ìèíèé íàéç ýì÷èëäýã.
6. Áè îäîîõîíäîî ýð¿¿ë áàéãàà ó÷èð íàäàä ýð¿¿ë ìýíäèéí äààòãàë õýðýãã¿é ãýæ áîäîæ áàéíà.
7. Áè îäîîõîíäîî çàëóó áàéãàà òóë íàäàä ýð¿¿ë ìýíäèéí äààòãàë õýðýãã¿é ãýæ áîääîã.
8. Áè ºâäñºí ¿åäýý ýìíýëýãò î÷èõîî ýâã¿éðõäýã.
9. Áè ìàíé îðíû ýìíýëãèéí òóñëàìæ ¿éë÷èëãýýã áóñàä îðíûõòîé õàðüöóóëàõàä ÷àíàðã¿é ãýæ áîääîã.
10. Áóñàä øàëòãààí: _____

12. Õýðâýý òà ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäñàí áîë äîîð äóðüäñàí ýð¿¿ë ìýíäèéí òóñëàìæ ¿éë÷èëãýýí¿¿äýýñ àëèíûã íü ¿íýã¿é õ¿ðòýõ áîëîìæòîé âý? (??????????? ??? ???????????????? ??.)
    1. Õýðâýý áè ºâ÷ëººä ýìíýëýãò õýâòñýí òîõèîëäîëä
    2. Õýðâýý áè àðõàã ºâ÷òýé áîë (÷èõðèéí øèæèí, õîðò õàâäàð, ýñâýë ñ¿ðüåý ã.ì)
    3. Õýðâýý áè ºâ÷òýé áîë õýðõýí, ÿàæ, ÿìàð ýì÷èä ¿ç¿¿ëýõýý ìýääýã.
    4. Áè äàðõëààæóóëàëòàíä ÷ºëººòýé õàìðàãäàíà.
    5. Áè çàðèì íýãýí ýì, òàðèàã (òóõàéëáàë õàðüöàíãóé õîâîð áîëîí õàëäâàðò ºâ÷íèé ¿åä õýðýãëýãääýã ýì¿¿ä) õºíãºëºëòòýé ¿íýýð õóäàëäàí àâíà.
    6. Áè æè??ìñ ?í ?????? ??? ýì÷èéí òóñëàìæ ¿éë÷èëãýýã õºíãºëºëòòýéãýýð õ¿ðòýíý.
    7. Áóñàä _____
    8. Áè ýð¿¿ë ìýíäèéí äààòãàëûí áóñàä õ¿ðòýýìæ (à÷ õîëáîãäîë)-èéí òàëààð ñàéí ìýäýõã¿é.
    9. ?????? ?? ??????????? ????? ??? ?? ? ?????? ???????? ?????????? ??? ?? ?? ??????? ????? ????? ?????????? ????????????? ? ???? ??? ? ? ???? ? ??????? ?????????.

13. Ýð¿¿ë ìýíäèéí äààòãàë àøèãòàé ãýæ òà áîääîã óó?
    1. Òèéì

2. ¯ã¿é

14. ?? ??????? ???? ????? ???? ???? ??? ?? ? ?????? ????????, ????????, ?????????? ????????? ???

???????????. . . . . .

15. Òàí? ? ýð¿¿ë ìýíäèéí òóñëàìæ ¿éë÷èëãýý (???, ?????? ??? ????? ??)-ã àâàõàä ÿìàð íýãýí ñàää òîõèîëääîã óó? (??????????? ??? ???????????????? ??.)

1. Áè ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãääàà¿é ó÷èð íääää ýìíýëãèéí òóñëàìæ, ¿éë÷èëãýýã àâàõää áàéíãà õ¿íäýë òîõèîëääîã.
2. Ìàíàé îðíû ÿìýëãèéí òóñëàìæ ¿éë÷èëãýý èõ ¿íýòýé ñàíàãääàã.
3. Ìàíàé õàðúÿàëëûí áîëîí íàðèéí ìýðãýæëèéí ýìíýëã¿¿äèéí òîíîã òºõººðºìæèéí àøèãëàëò õàíãàëòà¿é áºãººä õ¿ðýëöýýã¿é áàéäàã.
4. Ìàíàé ýìíýëãèéí òóñëàìæ ¿éë÷èëãýýíèé ÷àíàð ìóó ó÷èð íääää òýð áîëãîí ¿éë÷ë¿¿ëýýä áàéõ øààðäëàãà ãàðäàãã¿é.
5. Ìàíàé ýìíýëã¿¿äèéí ýì÷, ìýðãýæëëòí¿¿äèéí ìýäëýã, ÷äâàð õàíãàëòà¿é ò¿âøèíä áàéäàã áºãººä çàðèì òîõèîëãîëä õóäëàà îíîøëîõ ãýõ ìýòèéí ÿâääàë òîõèîëääîã.
6. Áóñàä øàëòãààí: _____

16. ????????? ??????????? ????? ?????????? ???? ? ?????, ? ???? ????? ?? ?????? ???? ?? ?? ?? ???? ????? ???? ????????? ?????? ??? (?????? ?????? ?? ???? ????? ?????? ???, ????????????? ?????? ?? ?????? ?????? ?????? ????? ?????????? ?? ???? ???????????? ?? ???????? ?????.)

1. ????
2. ? ?? ?

17. Õýðâýý òà ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãääæ àìæàãà¿é áàéãàà áîë òà ýð¿¿ë ìýíäèéí äààòãàëûí òàëàäõ òîâîðõîé ìýäýýëëéãà àâàõûã õ¿ñ÷ áàéíà óó? Õýðâýý õ¿ñ÷ áàéâàë ýíý òàëûí ìýäýýëëéãà òàíä ºãíº.

1. Òèéì
2. ¯ã¿é

18. ? ???? ???????? ???????? ? ?????? ?????? ???, ????????, ????????????? ????? ??????, ????? ???? ???? ????? ??????? ????????????? ???? ?????? ???

1. ????
2. ? ???

19. ? ???? ??????? ???????? ? ??????? ???????????????? ? ? ? ? ??? ???? ? ????? ? ?.

    1. ????

    2. ???? ?????

    3. ?????????? ?

20. ? ???? ??????? ???????? ? ? ????????? ??????? ???? ?????

    1. ? ?? ??? ?? ?????????

    2. ????????? ?????????

    3. ?????????? ???? ?????????

    4. ?????????? ?? ???????? ?????.

21. ???? ????? ? ??????? ???????, ???????????? ???? (??? ?? ? ?????? ????? ?????
    ???????????? ?? ???? ????????? ?????? ? , ? ????????)-? ????? ? ??????????? ????
    ??????? ?? ??????? ???????? ????? ???

    1. ? ????? ?????? ?????? ? ?????????

    2. ???????????? ? ??????????? ??

    3. ????? : _____

    4. ?????????? ?? ???????? ?????.

Appendix 4 Questionnaire for students

Please answer the following questions by putting circles, and filling in the blanks.

Section A General Information

1. Living districts

    1. *Khan-Uul*
    2. *Songino-Khairkhan*
    3. *Chingeltei*
    4. *Sykhbaatar*
    5. *Bayangol*
    6. *Bayanzyrkh*
    7. *Nalaikh*
    8. *Bagakhangai*
    9. *Baganuur*

2. What is your age? _____

3. Gender:

    1. Male
    2. Female

4. Number of people in the family: _____

5. In which type of university do you study?

1. Private university

2. Public university

6. How much monthly income does your family have?

1. Less than 10000 *tugriks*

2. 11000-20000 *tugriks*

3. More than 21000 *tugriks*

7. Where do you come from?

…….

Section B Information Related to Health Insurance Coverage

8. Do you have Mongolian health insurance?

1. Yes

2. No (If you have not been covered by health insurance answer question 11.)

9. How long have you had Mongolian health insurance coverage?

1. Since 1994

2. 8-10 years

3. 4-7 years

4. 1-3 years

5. Less than 1 year

10. Where did you get information on how to obtain the Mongolian health insurance?

1. Television

2. Radio

3. Newspaper

4. Health workers and physicians

5. Family members and kin

6. Friends, relatives

7. Teachers and university's health social workers

8. Other (specify) _____

11. If the answer to question 8 was no, what is the reason for being uninsured?

1. I have not money

2. I cannot go to the health centre

3. I never heard about health insurance

4. I usually treat myself

5. I have friends who can treat me

6. I am healthy and do not need health insurance

7. I am too young and do not need health insurance

8. I am afraid to go to the hospital

9. I think quality of health care in Mongolia is poor

10. Other reason _____

12. If you have Health insurance, what are the benefits of Mongolian health insurance do you know?

1. I can have an inpatient care if I need it.

2. I have a chronic disease (like diabetes, cancer or TB) and I need health care.

3. If I am a sick, I know that I can go to the doctor.

4. I can receive immunizations.

5. I can receive some free medications.

6. If I am a pregnant, I will free cover to the health services.

7. Other benefits _____

8. I do not know what other the benefits are

9. If I have a health insurance, I can analyze some laboratory analysis.

13. What do you think the Mongolian health insurance is useful?

1. Yes

2. No

14. How many times do you go to the hospital a year? (The average number of hospital visit per year.)

…….

15. What do you think are the barriers to obtaining good health care in Mongolia?

1. I do not have health insurance

2. Health care is too expensive

3. Health care facilities are too far away

4. The quality of care is poor

5. The health care equipments are poor

6. The skills and knowledge of Mongolian health professionals are poor

7. Other reason _____

16. If you are not covered by the Mongolian health insurance, do you want information about how to obtain health insurance? If the answer is yes, information will be provided.

1. Yes

2. No

17. Had you had the Mongolian health insurance advertisement in your provinces?

1. Yes

2. No

18. Could you analyze the effects of HI advertisements?

1. Good

2. Medium

3. Insufficient

19. What do you think about the HI premium?

1. Very high

2. Admissible

3. Relatively less

4. I cannot answer

20. Could you write a health service, which is you want to get by Mongolian health insurance.

……

Appendix 5 Questionnaire for students, in Mongolia

Ýð¿¿ë Ìýíäèéí Äàòàãàëûí òàëàðõ ñóäàëãàà

Ýíýõ¿¿ ñóäàëãàà íü õ¿í àìûí Ýð¿¿ë ìýíäèéí äàòàõàëä (Öààøèä ÝÌÄ ãýíý.)-ûí òàëàðõ ìýäëýã áîëîí Ýð¿¿ë ìýíäèéí äàòàõàëä õàìðàãäàëòûí òàëàðõ ñóäàëãàà þì. Ñóäàëãààíû ¿ð ä¿í íü “Èðãýíèé Ýð¿¿ë Ìýíäèéí Äàòàõàëûí òóõàé” õóóëèéí õýðýãæèëòýíä ñóóðü ñóäàëãààíû ¿íäýñ íü áîëîí. Áèä òàíàäñ Ýð¿¿ë ìýíäèéí äàòàõàëûí òàëààð çàðèì íýãýí àñóóëòûã àñóóõ áºãºº òàíû îðîëöîã íü ñàéí äóðûíõ áàéíà. Áèäíèé ñóäàëãààíä òàíû îðîëöîã ÷óõàë à÷ õîëáîãäîëòîé þì. Ñóäàëãààíä îðîëöîã÷ òà íýðýý áè÷èõ øààðäëàãàã¿é áºãºº õýí íýãýí õ¿íèé îðîëöîã, íºëººëºë áàéõã¿é áàéõ áîëíî.

Áèäíèé àæëèä òóñàëæ ñóäàëãààíä õàìðàãäàõ áîëñîí òàíä áàÿðëàëàà.

Àñóóëò

Àñóóëòûí ºìíºõ äóãààðûã äóãóéëæ òýìäýãëýíý ¿¿.

<u>À. Åðºíõèé ìýäýýëýë</u>

1. Òàíû îðøèí ñóóãàà ãàçðûí õàðúÿàëàë

    1. ? ??-? ?? ??????
    2. ???????-??????? ?? ????
    3. ????????? ??????
    4. ? ???????? ??????
    5. ??????? ??????
    6. ?????? ?? ? ?? ???

7. ?????? ? ?? ???

8. ?????????? ??????

9. ???????? ? ?? ???

2. Òàíû íàñ: _____

3. Òàíû õ¿éñ:

1. Ýðýãòýé

2. Ýìýãòýé

4. Òàíû àì á¿ëèéí òîî: _____

5. Òà ???? ???? ???? ?????????? ?? ???? ???

1. ??????

2. ? ??? ?

6. Òà?? 7 ???????? äóíäàæ îðëîãûí õýìæýý

1. 10000 òºãðºãººñ áàãà

2. 10000-20000 òºãðºã

3. 20000 òºãðºãººñ äýýø

7. ? ? ??? ???, ???????? ??????? ???

1. ? ????????? ?

2. ? ?? ??, ???? ????? (??????????? ??) . . . . . .

Â. Ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäàëòûí òàëààðõ ìýäýýëýë

8. Òà ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäñàí óó?

1. Òèéì

2. ¯ã¿é (Õýðâýý òà õàìðàãäàà¿é áîë 11-ð àñóóëòàíä øóóä õàðèóëíà óó.)

9. ? ? ??? ?? ? ?????? ???????? ????? ?????? ????????? ????? ??? ???????? ????? ?? ????? ???????? ? ?????????? ????????? ?????? ???

1. ?????????????? ??????????? ?????.

2. ???????? ??????????? ???????? ????????? ????????? ??????.

10. Ýð¿¿ë ìýíäèéí äààòãàëûí òàëààðõ ìýäýýëýë áîëîí õýðõýí õàìðàãäàõ òàëààðõ ìýäýýëëèéã òà õàíààñ àâäàã âý? (??????????? ??? ?????????????????? ??.)

1. Òåëåâèçýýð

2. Ðàäèî áóþó õ¿ëýýí àâàã ÷ ààð

3. Ñîíèí, õýâëýëýýñ

4. Ýì÷, ýð¿¿ë ìýíäèéí àæèëòíóóäààñ
5. Àõä¿¿, õàìààòàí ñàäàí, ãýð á¿ëèéí õ¿ì¿¿ñýýñ
6. Àíãè õàìò îëîí, íàéçóóäààñàà
7. ???? , ?????????? ????? ???????? ??????? ????????? ?????????????
8. Áóñàä (òîäîðõîéëîí áè÷íý ¿¿.) _____

11. Õýðâýý òà 8-ð àñóóëòàíä ¿ã¿é ãýæ õàðèóëñàí áîë ýð¿¿ë ìýíäèéí äàòõàëä õàìðàãäàõã¿é áàéãàà øàëòãààíàà äóðüääíà óó. (??????????? ??? ????????? ???????? ??.)
   1. Äàòàõóóëàõàä ìºíãº õ¿ðýëöýõã¿é áàéíà.
   2. Áè òýð á¿ð ??????? ??? ÿâæ àìæäàãã¿é
   3. Áè ýð¿¿ë ìýíäèéí äàòõãäûí òàëààð õýçýý ÷ ñîíñîæ áàéãààã¿é
   4. Õýðâýý áè ºâäñºí áîë ººðèéãºº ýì÷èë? ?????.
   5. Íàìàéã ºâäñºí ¿åä ìèíèé íàéç ýì÷èëýã.
   6. Áè îäîõîíäîî ýð¿¿ë áàéãàà ó÷èð íàäàä ýð¿¿ë ìýíäèéí äàòõãäë õýðýãã¿é ãýæ áîäîæ áàéíà.
   7. Áè îäîõîíäîî çàëóó áàéãàà òóë íàäàä ýð¿¿ë ìýíäèéí äàòõãäë õýðýãã¿é ãýæ áîääîã.
   8. Áè ºâäñºí ¿åäýý ýìíýëýãò î÷èõîî ýâã¿éðõäýã.
   9. Áè ìàí?é îðíû ýìíýëãèéí òóñëàìæ ¿éë÷èëãýýã áóñàä îðíûõòîé õàðüöóóëàõàä ÷àíàðã¿é ãýæ áîääîã.
   10. Áóñàä øàëòãààí: _____
12. Õýðâýý òà ýð¿¿ë ìýíäèéí äàòõãäëä õàìðàãäñàí áîë äîîð äóðüäñàí ýð¿¿ë ìýíäèéí òóñëàìæ ¿éë÷èëãýý¿¿äýýñ àëèíûã íü ¿íýã¿é õ¿ðòýõ áîëîìæòîé âý? (???????????? ??? ??????????????? ??.)
   10. Õýðâýý áè ºâ÷ëººä ýìíýëýãò õýâòñýí òîõèîëäîëä
   11. Õýðâýý áè àðõàã ºâ÷òýé áîë (÷èõðèéí øèæèí, õîðò õàâäàð, ýñâýë ñ¿ðüåý ã.ì)
   12. Õýðâýý áè ºâ÷òýé áîë õýðõýí, ÿàæ, ÿìàð ýì÷èä ¿ç¿¿ëýõýý ìýääýã.
   13. Áè äàðõëàìæóóëàëòàíä ÷ºëººòýé õàìðàãäàíà.
   14. Áè çàðèì íýãýí ýì, òàðèàã (òóõàéëàë õàðüöàíãóé õîâîð áîëîí õàëâàðò ºâ÷íèé ¿åä õýðýãëýãääýã ýì¿¿ä) õºíãºëºëöòýé ¿íýýð õóäàëäàí àâíà.
   15. Áè æè??ìñ?í ?????? ??? ýì÷èéí òóñëàìæ ¿éë÷èëãýýã õºíãºëºëöòýéãýýð õ¿ðòýíý.
   16. Áóñàä _____

17. Áè ýð¿¿ë ìýíäèéí äààòãàëûí áóñàä õ¿ðòýýìæ (à÷ õîëáîãäîë)-èéí òàëààð ñàéí ìýäýõã¿é.
18. ?????? ?? ??????????? ????? ??? ?? ? ?????? ???????? ?????????? ??? ?? ?? ?? ??????? ????? ????? ?????????? ????????????? ? ???? ??? ? ? ???? ? ??????? ?????????.

13. Ýð¿¿ë ìýíäèéí äààòãàë àøèãòàé ãýæ òà áîäàîã óó?
    1. Òèéì
    2. ¯ã¿é
14. ? ? ???????? ???? ????? ???? ???? ??? ?? ? ?????? ????????, ????????, ???? ?????? ????????? ???
    ???????????. . . . . .
15. Òàí? ? ýð¿¿ë ìýíäèéí òóñëàìæ ¿éë÷èëãýý (???, ?????? ??? ????? ??)-ã àâàõàä ÿìàð íýãýí ñàää òîõèîëäàîã óó? (??????????? ? ? ? ??????????????? ??.)
    1. Áè ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäàà¿é ó÷èð íàäàä ýìíýëãèéí òóñëàìæ, ¿éë÷èëãýýã àâàõàä áàéíãà õ¿íäýë òîõèîëäàîã.
    2. Ìàíàé îðíû ýìíýëãèéí òóñëàìæ ¿éë÷èëãýý èõ ¿íýòýé ñàíàãäàà.
    3. Ìàíàé õàðúÿàëëûí áîëîí íàðèéí ìýðãýæëèéí ýìíýëã¿¿äèéí òîíîã òºõººðºìæèéí àøèãëàëò õàíãàëòà¿é áºãººä õ¿ðýëöýýã¿é áàéäàã.
    4. Ìàíàé ýìíýëãèéí òóñëàìæ ¿éë÷èëãýýíèé ÷àíàð ìóó ó÷èð íàäàä òýðáîëãîí ¿éë÷ë¿¿ëýýä áàéõ øààðäëàãà ãàðäàãã¿é.
    5. Ìàíàé ýìíýëã¿¿äèéí ýì÷, ìýðãýæëëòí¿¿äèéí ìýäëýã, ÷äâàð õàíãàëòà¿é ò¿âøèíä áàéäàã áºãººä çàðèì òîõèîëäîëä õóäëàà îíîøëîõ ãýõ ìýòèéí ÿâäàë òîõèîëäàîã.
    6. Áóñàä øàëòààí: _____
16. ????????? ??????????? ????? ?????????? ???? ? ?????, ? ???? ????? ?? ?????? ???? ?? ?? ?? ???? ????? ???? ????????? ?????? ??? (? ???? ? ?????? ?? ???? ????? ?????? ?? ?, ????????????? ?????? ?? ???? ?? ? ????? ?????? ????? ?????????? ?? ???? ???????????? ?? ???????? ?????.)
    1. ????
    2. ? ?? ?
17. Õýðâýý òà ýð¿¿ë ìýíäèéí äààòãàëä õàìðàãäàæ àìæàãà¿é áàéãàà áîë òà ýð¿¿ë ìýíäèéí äààòãàëûí òàëààðõ òîäîðõîé ìýäýýëëèéã àâàõûã õ¿ñ÷ áàéíà óó?

Õýðâýý õ¿ñ÷ áàéâàë ýíý òàëûí ìýäýýëëèéã òàíä ºãíº.

1. Òèéì
2. ¯ã¿é

18. ? ???? ??????? ???????? ? ?????? ?? ? , ???????? , ???????????? ?? ????? ?????????, ????? ????? ???? ????? ??????? ??????????????? ?????? ???

3. ????
4. ? ???

19. ? ???? ??????? ???????? ? ??????? ????????????? ? ? ? ? ??? ???? ? ????? ? ?.

1. ????
2. ???? ?????
3. ?????????

20. ? ???? ??????? ???????? ? ? ????????? ??????? ???? ?????

1. ? ?? ??? ?? ?????????
2. ????????? ?????????
3. ?????????? ???? ?????????
4. ?????????? ?? ???????? ?????.

21. ???? ????? ??????? ???????, ???????????? ???? (??? ?? ? ?????? ????? ????? ????????????? ?? ???? ????????? ?????? ? , ? ????????)-? ????? ? ???????????? ???? ??????? ?? ??????? ???????? ????? ???

5. ? ????? ?????? ?????? ? ?????????
6. ???????????? ? ??????????? ??
7. ????? : _____
8. ?????????? ?? ???????? ?????.