

REPORT FOR SEMINAR IN KOREA ABOUT "HEALTH PROBLEMS IN VIETNAM SINCE 1990"

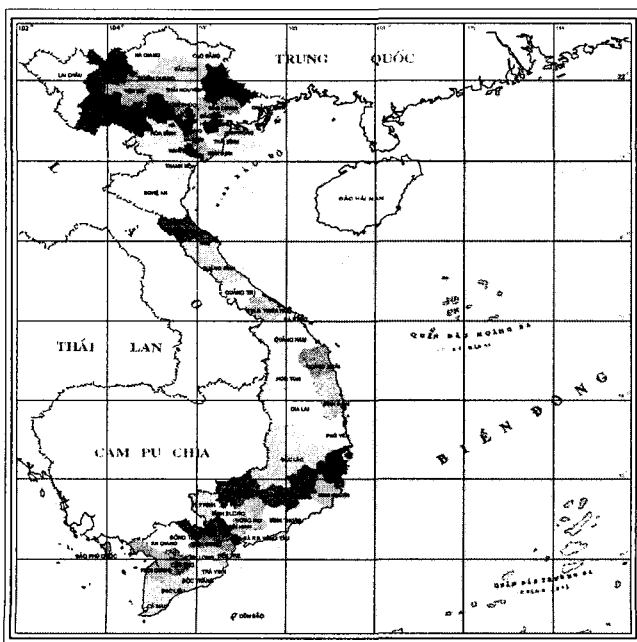
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I. Background:

Vietnam is one of the poorest countries in the world. Its GDP averages about \$300 USD/capita/year. The expenditure for health care is very low at 1.52% of the GDP, approximately \$6 USD/capita/year. Currently, despite economic improvements, 20% of the population lives in poverty. The health care program for nearly 80 million people in Vietnam is basically completed

Administration Map of Vietnam (61 provinces and cities, nearly 80 millions of population)



Vietnam has reached many notable achievements in health care among the developing countries. Epidemics and infectious diseases are being strictly controlled. The rates of mortality and morbidity are decreasing, due to the successful operation of National Health Policies. For example, prevention, control, and management of malaria with only the expense of \$0.30 USD/capita/year has significantly reduced mortality. Previously, 5,000 people/year would die. Now only 200 to 300 person/year die. Vaccination for 6 infectious diseases in children is fully supplied for prevention. In Vietnam, the EPI program is widely applied and includes hepatitis, encephalitis, and most recently, Vitamin K for newborns. The health care system for mothers and children is being improved. Maternal morbidity and mortality among live births is reduced. The numbers of children with malnutrition is reducing.

	1990 - 1995	2000
Mortality < 1 year of age	44.2% in 1993	35%
Mortality < 5 year of age	55.4% in 1993	42%
Malnutrition rate < 5 year of age	54% in 1993 44.9% in 1995	33.1%
Rate of low birth weight children (under 2,500g)	9.5% in 1990	8%
Mother mortality per 100,000 live births	110 in 1990	100
Average height of young adult	1.56m in 1994	1.58m
Average longevity	65 years in 1990	68 years

According to the statistics of the Ministry of Health: On average, Vietnamese people seek medical care about 2.1 times/year; out of 1,000 people, 19.6 people/year are treated by surgery; people spend \$5.2 USD/year for medicine. The Vietnamese pharmaceutical enterprises supply 50% of medicine for local demands. The Nationwide State Health Care System has 13,000 ward clinics; 1,837 hospitals; 61 preventive health care centers at the level of provinces and cities; 543 provincial preventive hygiene groups; specialized pharmaceutical scientific institutes; 7 medical universities plus medical colleges and secondary education schools. Nearly 10,000 commune health stations (93.6% of all communes) are staffed by an average of 3.99 medical workers per station, with 1 medical worker responsible for the health care of an average of 2,000 people. Health workers in the hamlets and communes are responsible for acute care and first aid treatment as well as the care of simple and chronic disease patients. The total number of medical workers in Public Health is 213,099 people.

There are 3 special health centers located in Hanoi, Ho Chi Minh and Hue - Da Nang for developing the medical sciences of Vietnam and, at the same time, for promoting advanced Vietnamese medical achievements in the world.

Vietnam's Public Health financial structure is as follows: the State only supplies 60% of the expense; of the remaining 40%, 13% is collected from hospital fees; 14% comes from health insurance and 13% from non-governmental assistance inside and outside of the country. Since 1991, Vietnam Public Health annually receives about \$36 million USD from

international organizations. If the assistance budgets from the World Bank and the European Economic Community are added, the total increases to \$60 to \$62 million USD/year. The money is mainly concentrated on priority items: 1) Purchasing and upgrading health care equipment in order to carry out the target medical programs, such as prevention of fever, goiter, tuberculosis, leprosy, malnutrition; 2) Applying the EPI program; 3) Protecting the health of mother and child, family planning; 4) Limiting the speed of HIV/AIDS infection rate; and 5) Producing vaccines.

Vietnam is constantly implementing the preventive health care system, improving the traditional medicine system, and strengthening the medical network, especially for the remote and mountainous areas. At present, only 40% of village medical stations have doctors. Traditional medicine is a valuable heritage, which has to be protected, developed and improved. Vigorous research work is needed to apply and modernize traditional medicine, in combination with modern medicine, without losing the character of Vietnamese traditional medicine. Vietnam has abundant sources of medicinal herbs.

II. Some remaining problems:

- Reproductive health care:

- Mother mortality is being reduced, but still is rather high. It is estimated that there are 2,200 to 2,800 mothers that die in Vietnam, annually. Therefore, there is rate of 7 mothers/day mortality. With improved prenatal care and health care equipment, 90% of maternal mortality cases could be prevented, in parallel with the national health policies.
- Based on a demographic survey in mid 1994, 50% of mothers did not come to ward clinics for their reproductive health. The important matters of pregnancy testing, giving birth in clean and safe conditions, and giving breast milk as well as supplying nutritive food for their children are not well publicized. Malnutrition in pregnant women is still a problem, especially in the rural areas. 60% of pregnant women are anemic. The rate of low birth weight children (< 2,500 gram) is still 10% to 20% in some areas.
- The malnutrition rate in children under 5 years old is very high, especially for the South East Asia region. A rate of 50% exists in the mountainous and highland areas of the North, and the highland areas of North Central Vietnam. Half of children under 5 years old in these areas are malnourished.
- Vietnam is one of the top 5 countries in the world using medical abortion. Annually, there are approximately 1 million cases of medical abortion. (This figure is collected in the State Health Care Stations, only and does not include private clinics.) 70 to 80 women die annually because of unsafe conditions.
- Old facilities and backward equipment can not meet the demands of the work. Additionally, there are not enough medical workers, especially in the communes.

Currently, 30% of communes in the whole country do not have a mid-wife and/or reproductive physician.

In the beginning of the new millennium, the health sector has stated strategic objectives aiming at improving women's, mothers' and children's health during 2001-2010 so as to affirm the Party's and Government's commitment as regards the cause of people's health care and protection. Actions to be initiated during this period will contribute to the confirmation of success of strategic objectives and to the cause of human development - the most precious resource determining the country's evolution.

- *Waste treatment:*

- Waste treatment in hospitals is a main problem. The hospital system is very old. Based on the statistic of Ministry of Health, among 80 investigated hospitals, the average age is 42 years. The Central Hospitals average 50 years old, with the oldest facility at 105 years. The Provincial Hospitals average 44 years, with the oldest facility at 115 years. The District Hospitals average 25 years, with the oldest facility at 60 years. Most of these hospitals do not have a waste treatment system or have, at best, a system that is not working well.

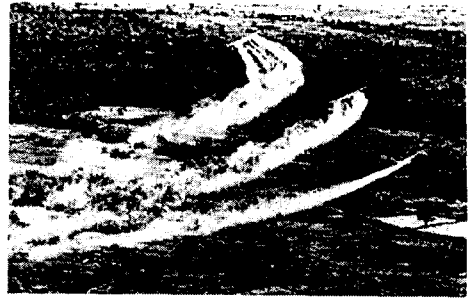
- *Health care services and environment:*

- Environmental factors are very important for the health of humans. Therefore, development activities must be closely connected with environmental improvement measures. In Vietnam, as well as in other developing countries, mortality and diseases appear mainly from biology factors in the water, land, air and foodstuffs.
- In parallel with the diseases of the backward society, the diseases of "civilization" are appearing with high speed, due to demographic explosion and the processes of industrialization and modernization. Many people are affected with respiratory diseases, from polluted biological and chemical substances, especially by the air pollution inside and outside of their houses. Traffic accidents are increasing along with the unbalanced development of transportation.
- The situation of economic crisis leads to lack of foodstuffs, fresh water and safe housing. In Vietnam, especially in mountainous areas (3/4 areas of the whole country), a lot of people do not have enough money for their basic needs and in malnutrition status.
- The demographic explosion, the migration into the cities, the building of export processing zones in residential areas, the irrational use of the natural resources, and the stagnant waste situation, are the heavy burdens not only of the present generation, but also for the next ones.

- The developing process has the main and strongest impact on the environment. Surely the demographic explosion and the processes of industrialization and modernization will lead to the serious, polluted, environmental situation.
- In the remote areas of Vietnam, the situation of pollution by organic waste and lack of fresh water is still common. Malaria, goiter, malnutrition and other diseases still exist in mountainous area. Foodstuffs are putting in danger by artificial coloring and chemical insecticide infection by the lack of chemical toxic knowledge, for example, about 1 million farmers who got the several chronic diseases by insecticide. Population density in remote areas causes the lack of cultivated land and too many workers. Therefore, the stream of people coming to the cities to find jobs or moving up into highland areas to clear the forest, threatens the current situation of the environment.
- In the cities, the speed of industrialization and modernization affects the health of humans. For example, in the last 5 years, the number with occupational diseases is increased, nearly 14,000 people getting silica lung disease. Polluted environmental situations in the factories, especially in the medium-scope enterprises (from 50 workers to 150 workers) and small-scope enterprises (under 50 workers) are putting people in serious difficulty. Besides, there are many private enterprises in families. Only 24.4% of enterprises reach Vietnamese Hygiene Standards. The system for water supply, drainage, and industrial waste is mainly out of date. The capacity for garbage collection only reaches from 30% to 40% in the cities. With the speed of industrialization and modernization, the poverty of many of the people will increase, while the public health care services do not pay attention to the living standard of this community.
- As mentioned above, expenditure for development of natural resources seriously changes the ecosystem. All these problems will have disadvantages affecting the health of humans. Vietnam Public Health must use new measures in order to find out what is the source of all this, and make co-operations with other authorized organizations for resolving the polluted environmental situation. It can not only think about health care services.

Besides, out of the matters mentioned above, the most remaining problems for Vietnam Public Health is how to resolve the consequences of Agent Orange after the war for environment and public health. Estimated that there are 1 millions Vietnamese people who are being withstood with the adverse effect at different rates, even after 30 years of wartime. Many Vietnamese people are affected by chemical toxic because during the time from 1961 to 1971, American had used 72 millions of herbicide was sprayed on 10% of the land area of South Vietnam and partly on Laos and Cambodia. At that time, 2 million people and approximately 1 million solders from the North were living there.

The researching of 10-80 Committee proved that the dioxin in foods from 1973 in Vietnam was penetrated into the body with much higher rate than its allowance stipulated by WHO (from 40 to 200 times).



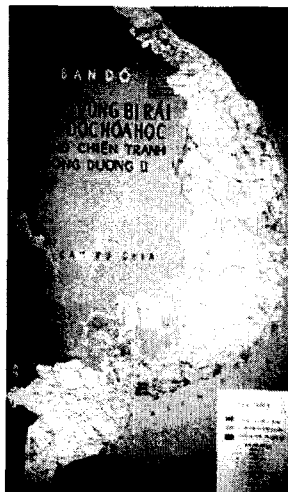
- Herbicides consist of 3 main types:

+ Agent Orange is a compound of the two 2,4,5-T (Trichloro-phenoxy acetic acid) and 2,4-D (Dichloro-phenoxy acetic acid).

+ Agent White is a compound of the two 2,4-D and Pichloram.

+ Agent Green (Acid cacdylic)

Map of areas that were sprayed by Agent Orange in the 2nd Indochina War



- The Agent Orange occupies 61% of the used amount (approximately 44 liters). In components of the Agent Orange consists of 2,4,5-T; in this component comprises of an impure element, which is 2,3,7,8-TCDD (Tetra Chloro Dibenzo-p-Dioxin). Estimated approximately 170 Kg of 2,3,7,8-TCDD, which usually called for short is Dioxin. The average quantity of sprayed Agent Orange is 28 liters/hectare in which consists of approximately 107 nanogram of Dioxin.

Beside that, the Americans have also used 9,000,000 Kg of CS substances, which they were contained in oil drums of 200 liters each, is an induced agent and cause stinging eyes. This agent has toxic feature as cyanides. The total amount of Napalm used in the Vietnam War was 100,000 tones. The nerve toxicology similar GB substance which Americans have used approximately 2.5 Kg in Vietnam War. At present, publicity is interesting almost on Agent Orange consequences because they understand that Dioxin is a:

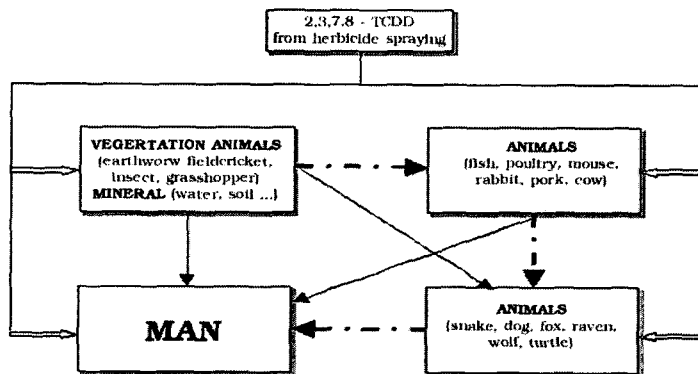
♣ **Very Toxic:** A toxic dosage can cause death is about microgram/kg of human weight, and at a lower concentration can be nanogram/kg of human weight can cause cancer or deformal or cause many other diseases.

♣ **Very persistent:** during a period of half-disintegrate of dioxin is about from 10-12 years (according to some documents said can be longer); in human body can be about 8-10 years; in shrimps and fishes is about one month. Results of many studies can showed that dioxins not penetrate into crop plants products. According to USA Defense Ministry: Total area of soil was sprayed by toxic chemicals is 2,026,240 hectares in the South of Vietnam, with total amount of woods have lost is 46,000,000 m³ of the trade woods)

Four diseases with evidences related to Orange Agent are: Cancer of all soft microorganisms; malignant lymphoma tumor; Hodgkin disease; leaden skin disease.

The six diseases with evidences related to Toxic Chemicals are: Respired system cancer; prostate cancer, myeloma skin, acute and sub acute outside pneumatology, dichotridera (innate defect) and Porphyry.

Resume about the transmission of 2,3,7,8-TCDD in natural



All the documents of Korea and Australia also showed the damages of Agent Orange to the health of veterans who used to be in the war of Vietnam. They asked the compensation for the victims of Agent Orange from Chemical Companies and from their owned Government.

Preliminary conclusions:

1. As the spraying had the military purpose, all the provinces of the South of Vietnam were more or less sprayed. Up to now, 20 years has passed since the spraying cessation, the rate of people having 2,3,7,8-TCDD in their fat tissue is still high (80.83%) while in developed countries the rate is 76%;
2. The soil sample showed that: 2,3,7,8-TCDD persists in highland, delta, seacoast following this degree of frequency: seacoast, highland then delta. 2,3,7,8-TCDD was collected or binding in spots, in soil, silt-causing contamination to animals if they frequent these spots. So now, sometimes we meet some animals having 2,3,7,8-TCDD in their tissue even high concentration of 2,3,7,8-TCDD. Especially during the military sprayings, the river water contained a high rate of 2,3,7,8-TCDD and the people who lived on the riverbank have generally high concentration of 2,3,7,8-TCDD;
3. Now, we consider that the animals, the vegetation do not contain 2,3,7,8-TCDD. But during military spraying; the foods, the water were the main source transporting 2,3,7,8-TCDD to human bodies;
4. Do not hold the idea that people living in non-sprayed areas would not be contaminated. On the contrary, using food, water from contaminated area, they can easily be contaminated;
5. Now, in the South of Vietnam, the concentration of 2,3,7,8-TCDD in human tissue is fairly decreasing.

The chemical war was over for a long time, but the burden it left on the ecology and human health is so consistent and long, which may last at least likely up to 5th decade of XXI century, that a complete and relevant national strategy should be required for remediation of the consequences.

Some pictures about the victims of Agent Orange after the America war in Vietnam, they are children of the Vietnamese veterans who was in the areas sprayed by chemical toxic





Vu Thi Hanh (was born in 1977)

She was neurasthenia. She is a daughter of Mr. Vu Van Vinh (was born in 1932). Now, they are living in Hai Tan, Hai Duong. From 1950 to 1974, her father used to live in the area that was sprayed by Agent Orange.

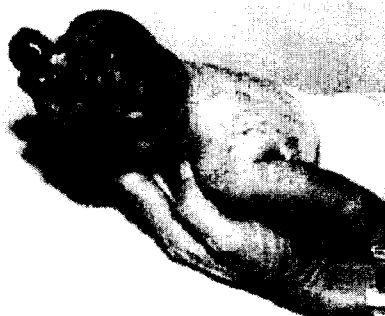


Pham Van Tuong (was born in 1976)

He was heavy neurasthenia and myasthenia. Son of Mr. Pham Van Ke (was born in 1934). Now, they are living in Hai Duong, Hai Hung. From 1963 to 1973, his father used to live in the area that was sprayed by Agent Orange.



Sứt môi - Hở hàm ếch





Quái thai chi hải cầu
hoàn toàn



Huyện Thống Nhất, N. 10, Đ. 1
Cố Định

Quái thai chi hải cầu
hoàn toàn



Tật cơ hậu môn



Tật tai nhỏ



Nhiễm sắc tố lan tỏa
(màng da đen mọc lông)



Đục thủy tinh thể bẩm sinh

Dioxin problem is not only the problem of Vietnamese chemical war caused by America but also the hot and urgent matter for the developed and developing countries which are going to execute the process of industrialization and modernization. From the dioxin consequences happened in Vietnam for a long time, human being can draw many valuable knowledge and experiences in order to prevent the damages of toxic chemical.

III. Preventive Health Care Situation in Vietnam

Point of view:

Preventive Health Care is widely understood as the activities in a method of treatment with the policy of "*active and early prevention of diseases and epidemics*". This point of view has closely connection with the activities of health care and protection for the people "Improve the health care, active prevention and treatment of diseases and rehabilitation", as follows:

- Improving the resistance of the body in order to against the pathogenic agents (by vaccinate);
- Precauting the danger of diseases in environment (pure environment, insects killing);
- Protecting the complication cases and heavy progress of the disease (active and early prevention of diseases);
- Preventing the bad situations after treatment (rehabilitation).

So, preventive health care is the general and wholly policy for treatment. The achievements of the preventive health care are:

- A widely system of health care were completely built with 13 Central Researching Institutes, 61 provincial centers, 600 district groups with 18,000 carders and staffs;
- Legal system as the basic for preventive health care activities were made;
- The structure of disease infection and epidemics is basically changed, for example, malaria and plague, cholera as well as other disease infection are reduced. Besides, HIV/AIDS is actively found out in order to ensure the safety for intravenous infusion;
- Vaccinate in the country is rather enough for the diseases such as paralysis, pertussis, diphtheria, tetanus, javelin and rabies. In present, vaccinate for Japanese encephalitis B, hepatitis B is being researched, in parallel with the vaccinate for typhoid, cholera and measles;
- Activities for pure environment, hygienic workplace, health care in the schools are developing with good signals;
- Results in nutritious activities are more and more better (A` vitamin, iodine, ...);
- The quality of foodstuff safety hygienic is basically managed. Besides, Department of Foodstuff Safety Hygienic Management is just established, recently.

However, preventive health care of Vietnam has to face up with many challenges, as bellows:

- Some of disease infection have trends to return (javelin, malaria);
- Some of disease transmission is hardly controlled (HIV/AIDS);
- Parasite disease is highly developed;
- Foodstuff and chemical poisoning has trends to increase;
- The process of urbanization with high speed will surely bring about environment pollution;
- People's health in general, and pupil's health in particular is not strictly managed;
- Waste in the hospital is badly treated;
- The rate of child malnutrition is still very high (39%);
- Only 20% of households in the countryside have hygienic latrines.

However, at the turn of the Century, in the process of national industrialization and modernization, the Party and the Government always give particular attention to the cause of health care for people. To facilitate thorough understanding of major health policies currently issued by the Party and the Government as well as health sector development orientation, the ministry of Health thereafter introduces major and officially ratified policies regarding protection and care of people's health, and articles consisting guidelines for effective implementation of the policies. We do hope that these background papers will be useful for a desirable implementation of the policies.

Some common diseases in Vietnam are:

Diarrhea in children; dental caries; sun stroke; bronchial asthma in children; influenza; allergic rhinitis; chronic bronchitis; acute and chronic sinusitis; schizophrenia; dehydration; vomiting; headache and migraine; stuffiness and sneezing; asthma; coughing; pneumonia; arthritis; hepatitis; measles; tetanus in the newborn; zonal disease; ulceration due to bed-ridden; prickly heat; pimples; mumps; acute glomerular nephritis; pure mumps; thyroid diseases; gonorrhoea; rheumatic heart disease; leukocyte diseases and paralysis in children.

MEDICAL STATISTIC DATA*National Trends in Morbidity and Mortality by disease*

Unit: %

No.	Disease		1976	1986	1995	1998	1999
1	Communicable diseases	Cases	55.50	59.20	46.40	46.70	37.02
		Death	53.06	52.10	46.93	35.40	34.01
2	Non-communicable	Cases	42.65	39.00	41.90	39.45	53.71
		Death	44.71	41.80	33.89	43.96	52.22
3	Accident. Injury. poisoning	Cases	1.84	1.80	11.70	13.85	9.27
		Death	2.23	6.10	19.18	20.64	13.76

Population, social, and economic environment indicators

No	Indicator	1995	1999
1	Total of population	73 962 400	76 327 900
	Of which:		
	Female	37 868 700	38 809 400
	Rate of female (%)	51.2	50.8
	Urban	15 162 300	17 918 200
	Urban rate (%)	20.5	23.5
2	Pop. Density (pers./km ²)	223	231
3	Population growth rate (%)	18.6	14.3
	CRB (%)	25.3	19.9
	CDR (%)	5.7	5.6
4	GDP (Billion VND)	222 840	399 942
5	GDP per Capita (VND)	3 074	5 239.8
6	National Budget (Billion VND)	63 080	82 500
7	Health Budget (Billion VND)	2 513	4 750
8	Health Budget per Capita (VND)	33 978	62 230
9	% Malnutrition children < 5 years of age	44.9	36.7
10	Birth weight < 2500 grs (%)	10.1	8.0
11	Percentage of people who used safe water	45.24	50.5

National Trends in Morbidity and Mortality

Unit: %

No.	Disease	Cases	Death
1	Certain infectious and parasitic diseases	15.48	17.62
2	Neoplasm	1.81	3.03
3	Diseases of blood and blood-forming organ and disorders involving the immune mechanism	0.42	1.14
4	Endocrine, nutritional and metabolic diseases	1.61	1.08
5	Mental and behavioral disorders	0.73	0.14
6	Diseases of the nervous system	2.57	1.86
7	Diseases of the eye	3.43	0.03
8	Diseases of the ear and mastoid process	0.95	0.01
9	Diseases of the circulatory system	5.76	22.79
10	Diseases of the respiratory system	22.85	11.60
11	Diseases of the digestive system	9.57	5.21
12	Diseases of skin and subcutaneous tissue	1.58	0.14
13	Diseases of the muscular system and connective tissue	2.78	0.13
14	Diseases of the genitourinary system	5.35	1.43
15	Pregnancy, childbirth and the puerperium	11.28	0.38
16	Certain conditions originating in the prenatal period	0.81	9.77
17	Congenital malformations, deformation and chromosomal abnormalities	0.27	3.30
18	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1.44	2.07

National Morbidity

Unit: per 100,000 people

Disease	Cases	Death (%)
Pneumonia	426.60	1.82
Acute pharyngitis and acute tonsillitis	291.44	0.01
Acute bronchitis and acute bronchiolitis	250.29	0.20
Diarrhea and gastroenteritis of presumed infectious origin	237.32	0.16
Medical abortion	161.66	0.00
Influenza	119.38	0.00
Malaria	116.22	0.12
Essential (primary) hypertension	103.24	0.40
Transport accident	90.86	0.81
Respiratory tuberculosis	87.92	1.19

National Mortality

Unit: per 100,000 people

Disease	Cases	Death (%)
Pneumonia	426.60	1.82
Cerebral hemorrhage	13.11	1.69
Respiratory tuberculosis	87.92	1.19
Brain damage	28.46	0.99
Slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight	11.39	0.87
Infarct of the myocardium	6.76	0.86
Transport accident	90.86	0.81
Heart failure	29.15	0.78
Typhoid and paratyphoid fevers	21.98	0.73
Suicide	22.29	0.66

Conclusion:

The information mentioned above is the general preliminary picture about the environment and health care situations of Vietnam, of which, there are some news of community's health that has relation with the existing environment matter in Vietnam. The problem of environment and health care always exists and such challenges need to be resolved, during the process of socio-economic development in the developing countries such as Vietnam. Measures for controlling the diseases spread by pollution environment are very difficult and complicated; therefore, it is necessary to have closely co-operation with the scientists, medical experts and planners.

In this international forum, I would like to express my profound thanks to National Institute of Environmental Research (NIER), Department of Environmental Risk Research, Korea Society of Environmental Health (KSEH) in giving me the chance to meet, exchange and learn the knowledge from the famous experts in this object in order to draw the experiences and apply such good measures for the our owned home country.

Once again, thank you very much for your attention.