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PUBLIC HEALTH IN NON-SOVIET ASIA

edited by V. S. Grazhul'

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FOREWORD

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ANNOTATION

This book was written for physicians in all specialties.

The collection on public health in the countries of Asia is being published for the first time.

The 23 reviews in the book are devoted to the problems of health and of public health service in Asian countries with the exception of the people's democracies. Information concerning hospitals, the number of beds, morbidity, medical cadres, etc. is given against a background of the socio-economic processes occurring in the countries of Asia.

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INTRODUCTION

Asia is the largest continent on our planet. Its area, equal to 41,839,000 square kilometers, comprises 31% of the land area of the world. The population in 1961 exceeded 1,760 million people (approximately 50% of the world's population). The average density of population is 42 persons per square kilometer. The distribution of the population across the continent is extremely uneven. The greatest density is noted in the tropical belt, in the so-called monsoon portion of Asia, where in an area of three million square kilometers (7% of the area) 60% of the population is concentrated (over 100 people per square kilometer); at the same time on a territory of 31 million square kilometers in 1949 there were only 160 million people, that is, the density was equal to approximately 5 persons per square kilometer.

Thus, the population density in the monsoon portion of Asia exceeds by 20 times that of the remainder of the continent. The territory of non-Soviet Asia covers 25,339,000 square kilometers with an approximate population of 1,600 million people.

The climatic conditions in Asia are extremely varied. In central Asia a continental climate predominates. The Asian continent is separated from the moist Atlantic air by vast distances. The sea air from the Pacific Ocean is held back by the mountain ranges and the dry western winds, the southern tropical air by the foothills, and the continent is cooled only from the north by the northern Arctic air. Therefore, there are 13 different climates in Asia -- from the tundra in the Arctic to the equatorial in Ceylon and Indonesia and from the severely continental in eastern Siberia, Tibet and Mongolia to the Mediterranean subtropical in the Near East.

The temperature of the air over the greatest

portion of the Asian continent is high, thus guaranteeing the opportunity for the development of agriculture there. The temperature throughout all of non-Soviet Asia is favorable to agriculture. The average temperature in July is 34.7 degrees in Baghdad, 42 degrees in the Turfan depression (Chinese People's Republic), 27 degrees in Singapore, 29.7 degrees in Saigon, 28.2 degrees in Colombo (Ceylon), 26.4 degrees in Jakarta and 28.8 degrees in Hanoi; absolute maximums are observed in the desert areas of Central Asia and Arabia where the average temperature during the summer months exceeds 46 degrees.

The greatest rainfall is on the continent's periphery, while the central regions (with the exception of the mountains) suffer a constant deficiency in rain. The greatest rainfall is in the windward regions. In the area of the Western Ghats, for instance, over 6,700 millimeters of rain fall annually; in certain regions of Java the annual rainfall is over 6,000 millimeters; in the mountains of Burma and India (Cherrapunji) it is 11,630 millimeters; there is a much smaller rainfall in the leeward areas.

Deserts and semi-desert areas cover a tremendous portion of Asia. According to conservative estimates, the dry land area reaches 13 million square kilometers (almost one third of the continent's entire territory), of which 5 million square kilometers are desert and 8 million square kilometers are arid steppes.

Therefore, the regions with irrigated agriculture are of the greatest importance for agriculture in Asia. The basic pursuit of the population of Asia is agriculture. Until World War II the capitalist countries of Asia provided 95% of the rice, approximately 30% of the wheat, 98% of tea, approximately 40% of the sugar beet, over 80% of the copra and approximately 90% of the soybean harvest.

Along with the foodstuffs the colonizers widely introduced industrial crops. The Asian countries provided over 95% of the world's output of natural rubber (Malaya, Indonesia and Thailand), 30% of the cotton, 100% of the jute and over 90% of the supply of the bark from the quinine tree. The non-Soviet countries of Asia provided 94% of the silk breed products of the capitalist countries. During World War II agriculture suffered greatly in the regions that had been occupied. Irrigation projects were destroyed and plantations were left to run down. Colonialism and the feudal remnants were and in many places remain the main cause for backwardness in agricultural production.

Great changes in the political and economic map of Asia took place following World War II.

Victory over Japan, who was the chief stiffler of freedom in Asia during the war, the decay of a single capitalist system, the disintegration of the colonial system and the powerful national liberation movement of the peoples of Asia finally in the end led to the point where the peoples of China, the Korean People's Democratic Republic and the Democratic Republic of Vietnam ended feudalism and colonialism for ever, chased the imperialists out and started on the path of socialist development. (Mongolia liberated itself from the chains of colonialism in 1921 and had started on the path of independent statehood and then the building of socialism.)

As a result of the national liberation movement, the peoples of India, Indonesia, Pakistan, Burma, Ceylon, Malaya, Cambodia, Laos, Lebanon, Syria, Jordan and other countries became independent.

In connection with these political changes, serious changes also took place in the economy of foreign Asia.

In the Asian countries of the people's democracies agrarian reforms have been carried out and estates have been liquidated, as have the feudal remnants in the use of the land (lands belonging to monasteries, corvee, share cropping and shackling rents). The peasants in these countries started on the path of collective agriculture, the application of modern technology and intensive farming and animal husbandry.

The countries of the people's democracies in Asia also achieved successes in the area of industry.

A completely opposite picture of degradation and collapse in economic development can be seen in those countries of Asia that had tied their fates to the camp of imperialism and colonialism. They, as before, remain alongside the colonial countries as a source of tremendous profit for the monopolies of the USA, England, France and other colonial powers.

This can be clearly seen by a comparison of the exports of capital from the USA and the imports by it of profits. For the period from 1950 through 1958 the USA supplied capital to the poorly developed countries in the sum of 4,112 million dollars; during the same period, they took out profits from the poorly developed countries in the sum of 11,313 million dollars. In other words the clear

profit to the USA was 7,201 million dollars.¹

From the countries of the Near East alone the US oil monopolies received a profit of from 1.5 to 2 billion dollars annually. For every ton of oil acquired in Iran they received 12 and a half dollars profit and in Kuwait 16 to 17 dollars. If in the United States the monopolies received approximately 4,000 dollars profit annually from each oil worker, then in Kuwait the exploitation of the labor of workers brings a profit of 34,000 dollars annually.² The merciless exploitation of the economically poorly developed countries by the imperialist countries is disguised by the phraseology, "assistance" to them. In reality American "assistance" to these countries is an original form of their enslavement, since the loans and subsidies are directed towards the purchase of weapons and the construction of bases for aggressive actions against the countries of the camp of socialism and peace.

During the years 1950 to 1960 the United States provided as so-called assistance to the foreign governments 46,767 million dollars including 10,450 million dollars for the assistance of Asian countries (26.7%). The chief clients for American assistance are the countries which belong to the imperialist aggressive blocks of SEATO and CENTO. Thus, 98% of the funds spent in the Near and Middle East were received by three CENTO participants: Turkey, Iran and Pakistan. In Southeast Asia 93% of the funds went to three countries who are participants in SEATO: South Vietnam, Thailand and the Philippines. And, out of the countries of the Far East 80% of the funds went to the military allies of the United States, the puppet governments of South Korea and Taiwan.

The so-called assistance by the USA is of a one-sided nature. It is directed at the expansion of the military potential of the satellite countries. It is more profitable to the Americans to prepare substantial military contingents of the basic inhabitants of Asia by spending relatively small amounts of funds. For 2 and a half to three billion dollars annually they can train 3 to 4 times as many soldiers as they can for 50 to 60 billion dollars in the United States.³

However, the Asian countries who have fallen into servitude to the Americans will not gain anything from this "assistance." None other than the former President of the United States Kennedy proved this. In one of his speeches he admitted that "the majority of the countries whom we are helping are at present no more independent in the area of economic development than when we began our assistance."⁴

The representatives of the press in the countries receiving this aid also speak of this. According to the Pakistani newspaper, Morning News, of 7 April 1960, as a result of the 10 year "cooperation" between the United States and Pakistan, the living standards in that country remain the lowest in the world, since 70% of Pakistan's income goes for military expenditures.⁵

The Philippines, where the popular masses are fighting for the abrogation of the unjust treaties with the United States have been turned into a hearth of poverty and diseases. One cannot expect economic development in a country where foreign monopolies rule, and no other than the former President of the Philippines Carlos Garcia testifies that this is so. Here is how he evaluated the situation in January of 1960. "There is apparently no other independent country in the world in which the control of the foreigners over the economy is so broad and all encompassing as in our country. In essence such a situation turns independence into a joke and deprives it of any meaning. As long as such a situation remains, we will remain a colonial country in many ways."⁶

Over a thousand foreign companies and firms are active in Iran. Annually they take out of the country 300 million dollars in profits, not taking into account the oil industry which provides approximately 800 million dollars profit annually. The American journal, Newsweek, was forced to acknowledge that 80% of Iran's population is starving. Actually 95% of the population is starving.⁷

The same dark picture can also be observed in the remaining countries of Asia that are linked to SEATO and CENTO (Turkey, Thailand, South Vietnam and South Korea).

In Turkey, for instance, poverty leads to a mass exodus of the peasants from the villages. Annually, approximately 300,000 people leave for the cities. There are 2 million farmhands and 100,000 peasants without land who cannot find work. According to the Turkish newspaper, Kurvatan, hunger and poverty rage in certain villages. The Turkish Ministry of Public Health was forced to admit the presence of the tremendous number of infectious diseases and the inaccessibility of medical aid.⁸

The countries of Asia which were the third group of countries liberated from colonial dependence following World War II (India, Indonesia, Burma and Ceylon) and have started out on the path of the building of a national economy and

positive neutrality, although they cannot be compared in their achievements with the countries of the people's democracies, have nevertheless achieved substantial successes in the matter of the development of the national economy.

The world system of socialism has had a substantial influence on the development of these countries. The Program of the CPSU points out that "the existence of a world socialist system and the weakening of imperialism are opening up to the peoples of the liberated countries the prospect of national rebirth, the liquidation of age-long backwardness and poverty and the achievement of economic independence."⁹

Although in a number of capitalist countries of Asia the level of economy has improved, the rate of development lags behind the tempo of the development of the national economies in the socialist countries. It should be taken into account that approximately 89.5% of the industrial output in the capitalist world fell to the share of the developed capitalist countries with an approximate population of 550 million people in 1962 and only 10.5% was available to all of the economically poorly developed countries with a population of over one billion persons.¹⁰

An extremely significant symptom is the striving of the peoples of the economically poorly developed countries of Asia towards new forms of economic development: towards planning, the collective form of land use and the development of the state sector of industry. This is a result of the victory by socialism over one third of the world. Many leaders of anti-colonial revolutions turn their eyes toward socialism, trying to find in it prospects for development and a basis for the reorganization of their national governments. And, if socialism carries an original character in their thinking, then the fact that they turn towards it is no less symptomatic.

Of significant interest from this point of view is the political declaration of the Revolutionary Council of Burma, which is the highest organ of power in that country, published on 30 April 1962. The declaration states that the Revolutionary Council of Burma believes that, as long as the system of man's exploitation of man exists, our people cannot be rid of social evil. "The council considers that this will become possible only when an end is put to the exploitation of man by man and when a socialist economy, based on justice, has been created." The council recognizes that it is necessary to develop socialist economy on the basis of the nationalization of agriculture, industry, transportation, communications, foreign trade, etc. The council acknowledges

that the "vanguard and guard of the nationalist democratic government are primarily the peasants and the workers." The council appeals for an "... end to the imaginary charity, with public activities evoked by vanity with false piety, with sham religiousness etc." The declaration pays due attention to social measures -- popular education, sciences, social security and public health. It has been said that they "will develop rapidly in direct relation to the successes of socialist construction, similar to the manner in which the lotus blossoms when it is in water."¹¹

The living conditions for the workers in the non-Soviet countries of Asia were extremely unfavorable as a result of the merciless exploitation by the colonialists. Despite the fact that the majority of these countries are located in the subtropical and tropical belt where several crops of foodstuffs can be harvested each year and where intensive animal husbandry is possible, the working population of these countries has always suffered from and continues to suffer from hunger and malnutrition.

The renowned French geographer, Pierre Gourou, writes that on the average the daily rations for the peoples of Asia never reached even 2,000 calories per day. It consists basically of low calory vegetable foods. In Kuomintang China meat products made up only 2.3% of the calories consumed (as against 39% in the USA). On the average the Tonkin peasants used 3 kilo of meat per year (approximately 8 grams per day). The consumption of fish is also extremely insignificant. Thus, in India the annual average per consumer comes to 1.5 kilo of fish, in Pakistan to 3.4 kilo, in Ceylon to 5.6 kilo and in Indonesia to 6.2 kilo.¹²

The causes for hunger in the countries of Asia, as in other countries in Africa, Oceania and Latin America lie in poverty, poor soil, the exclusion of foodstuffs from crop rotation and the substitution of industrial crops (such as rubber, cotton and tobacco).

The sanitary and hygienic living conditions of the population in the capitalist countries of Asia are clearly unsatisfactory. The majority of the population live in hovels, thrown-up shacks, caves, slums and "shacks thrown up out of metal sheets" which are deprived of good quality water sources, the elementary comforts and rest rooms (not even speaking of sewage systems). It is natural that in all of these countries infectious diseases and tropical parasite diseases -- malaria, leprosy, frambesia, bilharziosis (schistosomiasis), filariatosis and kala-azar -- rage.

The countries of southeastern and southern Asia are the endemic areas for particularly dangerous infections -- cholera, plague and smallpox (India, Pakistan and others).

Although the total number of people infected by smallpox is decreasing throughout the world, Asia's share in this respect continues to remain the highest, as can be seen from table 1.

Table 1

The number of registered cases of smallpox for 1958-1962¹³

	1958	1959	1960	1961	1962
Throughout the world	245,978	77,555	58,230	78,430	73,778
Of that in Asia	227,229	58,487	39,241	52,342	46,629

In 1961 there were 61,443 cases of cholera, all of which occurred in Asia; in 1962 there were 39,978 cases of which 38,614 were in Asia.

In 1961 there were 792 cases of plague registered throughout the world, and 463 of these were in Asia. In 1962 there were 1,423 cases throughout the world of which 775 were in Asia.¹⁴

Parasitic and so-called tropical diseases which the English scientist Lewis, not without foundation, called colonial are widely distributed throughout non-Soviet Asia.

Through the reports of the director general of the World Health Organization at the 16th General Assembly in 1963 it became known that at least 380 million people are still living in malaria zones and 10 million people are suffering from leprosy, 4 and a half million from frambesia, 400 million people from trachoma, 200 million people from filariatosis and 20 million people from onchocercosis.¹⁵

Not less than one third of these patients are located in the non-Soviet portion of Asia. Malaria alone causes tremendous losses. In India these losses amount to

2,400 million rupees annually, in Thailand 15 million dollars, in Indonesia 3.5 billion rupees and in the Philippines 54 million dollars.¹⁶

Of the 12 million lepers recorded in the world, according to the information from the inter-regional conference of the World Health Organization, in the eleven capitalist countries of Asia there were 2,111,000 patients, and of these 1.5 million were in India.¹⁷

The aftereffects of colonialism on medicine and sanitation are having a serious effect on the health of the population in the capitalist countries of Asia and for a long time yet will have a negative effect on it because the colonizers not only did not establish but often even deliberately hampered the creation of a network of institutions for preventive medicine and educational institutions for the training of medical cadres.

In the 17 countries of non-Soviet Asia (except Japan and the countries of the people's democracies) with a population of 702 million inhabitants in 1960 there were 105,580 physicians (an average of 6,650 inhabitants per physician). Practically, however, behind these average figures lie the following facts: in Pakistan approximately 15,000 inhabitants, in Laos 23,000 and in Indonesia approximately 45,000.¹⁸ According to information from the World Health Organization, in eastern Asia (all countries east of Afghanistan) where 1,370,821,000 persons live there are only 171 higher medical schools, and there are over 8 million inhabitants for each higher medical training institution. During each year these institutions graduate 12,418 physicians, while at the same time in Europe with a population of 619,707,000 persons there are 253 higher medical schools (or one higher medical school per 2.4 million population) annually graduating 37,222 physicians.¹⁹

As far as the supply of beds is concerned then in the 17 countries with a 1960 population of 702 623,000 there were approximately 308,000 beds which comes to approximately 0.43 beds per 1,000 inhabitants.²⁰

In the post-war years, in connection with the establishment of the World Health Organization, the International Children's Emergency Fund (UNICEF) and the Technical Assistance Fund under the United Nations the economically poorly developed countries are receiving aid to improve the public health organizations. This aid is expressed by sending consultants on various public health problems and by developing projects in the struggle with the diseases (the struggle

against malaria, the organization of anti-epidemic institutions, the supply of vaccines, insecticides, the organization of demonstration points for sanitation training, maternal and child welfare, the supply of dry milk for children, etc.). However, the funds released for the rendering of this assistance are miserly; they comprise only a hundredth or even a thousandth part of a dollar per person in the population and naturally do not play an essential role in improving the sanitary conditions of the life in the economically and technically poorly developed countries.

The USSR provides substantial assistance to many countries of non-Soviet Asia. In Burma and in Cambodia the Soviet government has built multipurpose hospitals, equipped according to the latest word in modern equipment. In Iran for over ten years a hospital of the Alliance of the Societies of the Red Cross and Red Crescent of the USSR is successfully operating. In Iraq in 1959 Soviet physicians carried out a great task in the liquidation of a smallpox epidemic. In India, during the course of several years, scientists worked on the organization of maternal and child welfare institutions and so forth. A hospital is being constructed with the funds and forces of the USSR in Indonesia.

The successes of socialist public health are having a substantial effect on the organization of public health in the countries of Asia. In order to struggle successfully against diseases, to lower mortality and, in particular, child mortality and to assure the harmonious development of the workers in the liberated countries of Asia, it is necessary to have substantial material and financial means; since these countries are in need of a substantial expansion of the network of higher and secondary medical educational institutions without which it is impossible to supply the population with medical assistance, large funds are necessary for the construction of hospitals, polyclinics, dispensaries and institutes. It is sufficient to note that the cost of the construction of one hospital bed in the United States is equal to 25 to 30,000 dollars. In the 12 countries of Asia there are from 0.1 to 0.8 beds per 1,000 population and in six countries from 1 to 2 beds. Along with this in the Mongolian People's Republic in 1957 the coefficient for supplying beds had already reached 9.1 per 1,000 population. If one assumes that in 20 countries of non-Soviet Asia with a population of 600 million people there is a need for at least three million hospital beds in order to achieve the coefficient of 5 beds per 1,000 population and if one takes the cost of the construction of one bed at at least 10,000 dollars, then it would take 30 billion dollars in expenditures. These countries do not as yet have such funds

and cannot count on receiving them in the near future. At the same time it is necessary to take into account that the serious struggle against diseases cannot be limited only to medical assistance. It is necessary fundamentally to change the sanitary conditions of life, to supply the population with good quality drinking water and to construct water lines, sewage systems, hygienic restrooms, dumps, etc. The implementation of all of these measures also requires huge funds. It would be equitable if the colonial powers (USA, England, France, Portugal and Holland), that during the course of centuries exploited the Asian countries, would now return to them a portion of the removed and practically looted funds for the struggle with diseases. However, apparently, one cannot count on this. Colonialism gave up its position to neo-colonialism which is trying to maintain its position in the former colonies. The certain sums, graciously provided by the USA for the struggle against malaria, are insufficient in order to solve the vital problems of public health in Asia. That is why the non-Soviet countries in Asia are adopting the experience of the socialist countries in the building of public health.

The peculiarities of socialist public health lie in the following. In the socialist countries the concern for the protection of the health of the population is taken on by the government. It organizes state treatment and disease prevention institutions. In the socialist countries the public health organs attract broad masses of workers to the solution of the vital tasks of sanitation in the environment. Socialist public health is guided by the ideals of internationalism and the spirit of discrimination (national, race, religious) is foreign to it. The fundamental trend of socialist public health is effective treatment. Many of these principles have been adopted by the countries of Asia, liberated from the yoke of colonialism. In India since 1947 a public health system is being built based on the complex solution of socio-hygienic and socio-economic problems, with the broad participation of the population in the construction of medical institutions. The realization of the plan for sanitation for the population is taking place simultaneously with the realization of the plan on "National expansion." This, Jawaharlal Nehru declared, is the most revolutionary act of modern India. Tremendous masses, hundreds of millions of people, work in common toil to change themselves. In the "blocks" into which the country has been divided (communities with a population of 50,000 persons), complex plans have been developed for socio-cultural measures also including the problem of the health of the population. The execution of these plans is placed on the panchayat, the council of the

community, which attracts the activists and the public sanitation workers to the work. These people build wells, clean out inhabited areas and help to find the sick.²¹ The "Bandung Plan" of public health has been worked out in Indonesia. On the basis of this plan in 1956 the government of Indonesia approved a national program of measures for the sanitation of communities. The Secretary General of the Ministry of Public Health of Indonesia Aris Dadi Djokrodipo declared that "Indonesia looks optimistically to the future. It has accepted the thesis that the protection of the health of the people is one of its chief tasks. Every person has a right to his health, to a healthy environment, to cleanliness and freedom and to freedom from unfortunate incidents and disease forming factors."²²

As we have already pointed out public health in the Burma Alliance has been provided with particular attention in the declaration of the government. The organization of public health in Burma was marked by the opening of 460 rural medical stations. In order, as quickly as possible, to provide the village with at least secondary medical personnel the training of medical assistants and sanitation instructors has been begun.²³ The difficulties, conditioned by the fact that the liberated countries are economically insufficiently developed, are also reflected in their successes in the area of public health. "The young sovereign states are not part of any system of imperialist states nor of a system of socialist states. But, the overwhelming majority of them have not, as yet, torn away from the world capitalist economy, although they still occupy a special place there. This is still a part of the world that is exploited by the capitalist monopolies. Until these countries put an end to economic dependence on imperialism they will play the role of 'a world village' and will remain an object of semi-colonial exploitation."²⁴ It must be expected that many of them will travel the path of social progress and that then the problems of public health in the non-Soviet countries of Asia will be solved more rapidly.

The collection entitled Public Health in the Foreign Countries of Asia, which is being offered to the attention of Soviet readers, consists of articles containing in brief the state of public health in the 23 countries of non-Soviet Asia.

The introduction was written by V. S. Grazhul.

The articles were written by the employees of the foreign public health department of the Institute of the Organization of Public Health and the History of Medicine

imeni N. A. Semashko, Comrades A. M. Isyn, I. S. Yemel'yanova, E. Yu. Burnashev, I. I. Sluchevskiy, F. V. Gorodinskiy and R. V. Glikman.

Each of the articles contains brief reference material of a general nature, providing the reader with a general outline of the country, information about its population, morbidity and the organization of public health (medical institutions, medical cadres and the budget).

It must be kept in mind that the designations of the institutions do not always correspond to our definition of them. Thus, for instance, dispensaries in the foreign countries of Asia (Ceylon and others) are not always the same medical institutions as in the USSR. They provide only consultation and counsel to certain categories of the population but do not themselves provide treatment of diseases.

It is also necessary to be critical of the statistical material. It is notoriously incomplete and does not reflect the actual state of the demographic processes and morbidity in these countries. In particular this refers to the indices for general and infant mortality. Thus, in the table below we see that in 12 states and territories of Asia the general mortality rate varies from 4.0 to 9.5 per 1,000 inhabitants and that infant mortality is from 27.2 to 98.0 per 1,000 live births (table 2).

Table 2.

General and Infant Mortality Rates in Asian Countries (per 1,000)

Country	year	gen. mort.	infant mort.	Country	year	gen. mort.	infant mort.
Vietnam (South)	1959	6.6	34.4	North Borneo	1961	6.8	55.3
Jordan	1959	7.3	63.1	Sarawak	1961	5.2	46.5
Iraq	1961	4.0	27.2	Syria	1960	5.5	--
Korea (South)	1959	7.5	48.0	Thailand	1960	8.4	49.0
The Malayan Federation	1960	9.5	68.9	Philippines	1960	7.7	73.1
Singapore	1961	5.9	32.3	Ceylon	1959	9.1	58.0

These coefficients do not withstand criticism. They are significantly lower than the mortality coefficients in the developed capitalist countries. Thus, for instance, in Belgium in 1960 total mortality was 12.32%, in the FRG 11.4%, in Austria 12.7% and in England 11.5%. Infant mortality, for instance, in 1960 in Austria was higher than in Singapore and South Vietnam. Apparently, the information published refers only to certain small regions and primarily to the urban privileged population.

The statistical data has been primarily gathered from the statistical handbooks of the World Health Organization, the United Nations Demographic Yearbook and the UNICEF, UN and WHO accounts and from national handbooks.

Information concerning the organization of public health has been taken from the First and Second Reports of WHO on sanitation conditions in the world, from current literature and from accounts by the ministries of public health of the corresponding countries.

FOOTNOTES

¹L. Stepanov, "Who Helps Whom," Novoye vremya (New Times), 1950, No. 6, page 31.

²A. Andreyev, "Triumph of the Leninist Ideas of Friendship Among Peoples," Kommunist (Communist), 1960, No. 6, page 43.

³R. A. Ul'yanovskiy, "The Imperialist Policy of 'Assistance' by the USA to the Poorly Developed Countries of Asia," Narody azii i afriki (The Peoples of Asia and Africa), 1962, No. 2, pages 39-57.

⁴The New York Times, 23 March 1961.

⁵Novoye vremya (New Times), 1960, No. 9, page 18.

⁶I. Sotnikov, "Toward the Boiling Point," Novoye vremya (New Times), 1960, No. 10, page 18.

⁷"Where Are the Forces of Reaction in Iran Going," Pravda (Truth), 14 February 1960.

⁸Za rubezhom (Beyond the Borders), 1962, No. 9 (90), page 24.

⁹Kommunist (Communist), 1961, No. 16, page 44.

¹⁰"The Economic Position of the Capitalist Countries," supplement to Mirovaya ekonomika i mezhdunarodnyye otnosheniya (World Economics and International Relations), 1963, No. 8, page 8.

¹¹Novoye vremya (New Times), 1962, No. 20, pages 16-18.

¹²Pierre Gourou, Asia, Publishing House of Foreign Literature, Moscow, 1956, pages 55-56.

¹³WHO Chronicle, 1963, No. 8.

¹⁴Epidemiological and Demographic Report, 1963, vol. 16, No. 4.

¹⁵WHO Chronicle, 1963, No. 7.

¹⁶Sante du monde, 1962, N. Hors serie, Poludisme, p. 12-13.

¹⁷Rapport epidemiologique, 1959, No. 4.

¹⁸Statistiques epidemiologiques et demographiques annuelles, 1956, Geneve, 1959.

¹⁹World Directory of Medical Schools, WHO, 1956.

²⁰Statistiques epidemiologiques et demographiques annuelles, 1956, Geneve, 1959.

²¹Sante du monde, 1961, 14, No. 1.

²²Swasth Hind, 1961, p. 95-98.

²³Sante du monde, 1961, v. 14, No. 1, p. 17.

²⁴"The Program of the CPSU," Kommunist (Communist), 1961, No. 16, page 14.

AFGHANISTAN

Afghanistan occupies an area of 650,000 square kilometers in the southwestern portion of Central Asia. The population of the country is concentrated primarily in the mountain valleys and oases and is composed of 13,860,000 persons (according to date for 1960); 46.6% are Afghans and 25.3% are Tadzhiks; in addition to that Uzbeks, Khazars, Turkmens, Belugi and others live in Afghanistan. The overwhelming majority of the population belongs to the Moslem Suuni sect. According to information the population in the principal cities of the country was as follows: in Kabul 206,000, in Kandahar 80,000 and in Mazir-i-Sherif 43,000.

Afghanistan is a constitutional monarchy, headed by a king (padishah) (from 1933 Mohammed Zahir-Shah). Parliament consists of two houses: the National Assembly, consisting of 172 deputies elected by direct elections for three years, and the house of nobles (senate) composed of 30 members appointed for life by the king. In the period between sessions the king has the right personally to change laws. In addition to the houses provided for in the constitution there is an assembly of the tribal chiefs -- the Great Jirga -- which is periodically convoked by the king for the solution of the most important problems.

Executive power belongs to the Council of Ministers.

MORBIDITY

Sufficient data on morbidity are not available since there are still not enough doctors and hospitals in the country and the registration of morbidity and mortality has not been organized properly.

According to information from Afghanistan, the following contagious diseases are prevalent: smallpox, of which there were 2,586 cases during the period from 1955 to 1957 (in 1959 -- 441 cases, in 1961 -- 174 cases and in 1962 -- 303 cases).

Dysentery occurs on the average 7 to 8 thousand times a year;

in 1959 there were 3,605 cases.

In addition to that the following have been recorded -- typhus, venereal diseases, tuberculosis, malaria, leprosy, trachoma and others.

Until recently, approximately 3 million people suffered from malaria annually. Morbidity rates for tuberculosis, according to information from WHO, were 3 cases per 1,000 population in the large cities of Afghanistan. Morbidity for typhus was 200 recorded cases in 1957 and 39 cases in 1959. There were 470 cases of enteric fever and paratyphoid in 1959 (more recent information is not available).

ORGANIZATION OF PUBLIC HEALTH SERVICES

There is a Ministry of Public Health, headed by a minister and his deputy, in Afghanistan. The ministry includes 3 directorates: general public health service, general administrative management and the Institute of General Public Health. The first directorate is responsible for all technical services, the second for the financial services and the cadres. The Institute of General Public Health is a new directorate. Presently the director of this institute is responsible for the training of cadres. The following departments exist in the Ministry of Public Health: the institutions of preventive medicine, public hygiene and publication, tuberculosis, epidemiology, venereal diseases, maternal and child welfare and X-ray and radiology.

In each of the 13 provinces there is a public health service which is headed by a director, responsible for all of the preventive and medical work in the province, who has jurisdiction over the central hospital in the province.

Until 1950 the problem of maternal and child welfare did not receive any attention in Afghanistan. Since 1950 certain measures have been carried out directed toward the treatment of children and the prevention of diseases of the mothers and children. The number of maternal consultations (clinics) increased from 5 (in 1957) to 7 (in 1960). Recently, six maternal and child welfare institutions were opened in Kabul, including a polyclinic at the women's hospital and two maternal consultations (clinics) that daily serve from 50 to 60 visitors. The same type of institutions have been opened in Kandahar and in Shevaki; it is planned to set up 8 similar centers in Kabul (two of them were already constructed in 1960) and in Jalalabad, Mazir-i-Sherif, Herat, Baglan and Kulbahar. The number of deliveries by trained midwives is gradually increasing. In 1957 the number of deliveries by midwives was 1,430 and in 1960 -- 2,142. A school for midwives and advanced courses for doctors are available at the hospital for women in Kabul.

There are not enough beds for children in the country; in

connection with this the government has allocated 2 million afghani for the expansion of the number of children's beds to 70.

At present there are 11 stations for the distribution of milk to 6,500 children.

In 1950 in Kabul a laboratory that is carrying out mass examinations of school age children was opened to provide services for children and women.

Public health in industry does not exist in Afghanistan. Social insurance is not available.

Medical service in the rural regions of the country is very poorly developed. Only populated areas located close to cities can use the hospitals and dispensaries. The five year plan for the complex development of agriculture, adopted by the government, envisages the organization of a network of public health services in the rural regions. In 1954 in the region of Shevaki (160 kilometers from Kabul) with a population of 30,000, the implementation of a project of a rural public health system, providing services to 11 settlements, was begun.

The system includes a health welfare center, one subcenter and five medical stations served by a doctor, a doctor's assistant, two midwives, one sanitation worker, two pharmacists and one vaccinator.

Since 1956 the government has transformed this region into a model in agriculture in all of its aspects and in particular in public health. In Shevaki students from the medical school, the nursing school and the school for midwives in Kabul are receiving practical training.

As a result of the English colonial policy Afghanistan inherited a difficult medical situation -- epidemics of typhoid, cholera and smallpox that devastate the country; high mortality from malaria, tuberculosis and insufficient diet; enormous infant mortality; and a lack of doctors and medical personnel. In the struggle with this evil the government of Afghanistan, having in the first place directed its efforts against epidemic diseases, has adopted measures for the organization of sanitary and hygienic work.

The basic measures against malaria were begun in 1950, primarily through the treatment of the areas, where the mosquitoes are born with insecticides (DDT). All work in the struggle with malaria is administered by the Institute of Malaria in Kabul which was organized in 1948. The institute has a laboratory of hematology and entomology. The director of the institute has at his disposal nine doctors-malariologists, one entomologist and 60 technicians. The institute sends sanitation teams to the malarial regions. The Institute of Malaria also trains cadres of malariologists, medical assistants and disinfection crews. Definite assistance in the struggle against malaria is provided to Afghanistan

by WHO and UNICEF that provide malariologists, equipment, DDT and vehicles for the mass sanitation of populated areas. As a result, in 1955 1,414,000 people were disinfected.

Certain successes have been achieved in the struggle against spotted fever. The chief means in the struggle against this is also DDT. Annually, between December and March, more than one million people are subjected to this sanitary process. The clothing, houses, mosques, public baths, means of transportation, etc. are dusted.

Smallpox vaccinations are used more and more with each year. Anti-smallpox vaccine in sufficient quantity to satisfy the needs of the country is prepared at the Kabul Bacteriological Institute. A struggle against hydrophobia is also carried on by this institute, and vaccines against cholera, rabbies, etc. are prepared here.

The chief task of the Tuberculosis Institute, organized in 1954, is mass examination of the population with the purpose of detecting those suffering from tuberculosis. The institute, in part, carries out tuberculosis tests (primarily among children) and BCG inoculations. For the number of hospitals in 1959 see table 1.

Table 1.

Hospitals and hospital beds in 1959

total		including							
		general		tuberculosis		maternity		psychiatric	
hos- pitals	beds	hos- pitals	beds	hos- pitals	beds	hos- pitals	beds	hos- pitals	beds
52	1709	43	1377	2	132	6	120	1	80

Included among the hospitals are the central hospitals in the 13 provinces and the two largest hospitals in Afghanistan: the men's and women's hospitals in Kabul, which are clinically multipurpose hospitals and serve as a base for the medical department of the Kabul university. In addition to that there is a well equipped tuberculosis sanatorium in Kabul. Recently in Kandahar a hospital for women was constructed with the help of WHO. A great lack in personnel and in equipment is felt in the provincial hospitals.

On the whole there is a great shortage of hospitals and hospital

beds in the country and service is practically available only to the city inhabitants and a very insignificant portion of rural inhabitants who live close to the city.

Outpatient care based on hospitals both in Kabul and in the provinces is to be provided. There are polyclinics which serve the entire population of the capital as well as the nearby settlements at both of the above mentioned hospitals. In recent years mobile medical units have been organized to serve the nomads.

Medical assistance in the country is free. Charitable organizations and the Red Crescent of Afghanistan also take part in medical service for the population.

MEDICAL PERSONNEL

In 1960 there were 224 doctors, 3 dentists, 102 midwives with degrees and 290 nurses in the country.

The shortage of medical cadres is one of the most complicated problems in the organization of public health in Afghanistan. The training of native medical personnel is being carried out at the school of medicine of Kabul University, opened in 1932. The period of training at the school is 6 years.

A pharmacy department was opened in 1960 at the same university and 20 students were accepted.

Table 2.

WHO and UN assistance to Afghanistan in 1958
(in US dollars)

Type of allocation	Permanent WHO assistance	UN technical assistance	Total
For the struggle against malaria	2,500	2,381	39,817 ¹
For the struggle against tuberculosis	--	6,262	6,262
For the struggle against endemic and epidemic diseases	5,182	29,298	34,480
For the organization of public health services	14,445	39,134	53,579

Table 2 continued.

WHO and UN assistance to Afghanistan in 1958
(in US dollars)

Type of allocation	Permanent WHO assistance	UN technical assistance	Total
For the training of secondary medical personnel	4,000	33,801	37,801
For training in methods of sanitation	--	8,467	8,467
For maternal and child welfare	--	28,520	28,520
For environmental sanitation	3,000	23,148	26,148
For other measures	28,793	927	29,720
Total	57,920	171,938	264,794

¹This figure includes assistance from the malaria fund in the amount of 34,936 dollars.

The first school for midwives was established in Afghanistan in 1951, and another one was recently opened in Kandahar. There is a school for the training of nurses. Based on the Kabul laboratory for maternal and child welfare, courses for the training of nurses and lab technicians for work in the network of the maternal and child care centers have been organized.

There are 20 maternal and child care centers in the country, of which 16 are located in Kabul and the remainder in the provinces of Kandahar, Herat and others.

Studies at a university, in courses and in the schools are free.

BURMA (THE BURMESE ALLIANCE)

Burma is a country in Southeast Asia. It covers an area of 677,900 square kilometers. It has a population of 22,342,000 (according to 1962 estimates). Approximately 60% of the population are Burmese. Of the national minorities the most numerous are the Karens (over 1.5 million) and the Shans (approximately 1.5 million). In addition to that approximately 500,000 persons of Indian and Pakistani extraction and over 300,000 Chinese live in the country. Buddhism is the predominant religion.

In an administrative sense, Burma is divided into Burma proper and four autonomous states: Kachin, Shan, Kayah and the Special Chin (Hills) District.

The capital of Burma is Rangoon (1,100,000 inhabitants in 1959). Other principal cities are Mandalay, Moulmein and Bassein.

In 1885, after 60 years of stubborn and cruel war, England occupied Burma and mercilessly exploited the people and the wealth of the country. During World War II Burma was occupied by the Japanese militarists, who brought it to its complete ruination. After the Japanese forces had been chased out, the English colonizers again attempted to return to the colonial regime, but the Burmese people achieved independence and since 1948 have had a sovereign government.

The Union of Burma is a federated republic. The executive organ is a bicameral parliament. It is composed of a chamber of nationalities, elected for a four year period.

Statistical service in Burma was organized following World War II and only covers the large cities and certain rural regions called registration zones. In 1959 in the cities and registration zones of Burma the birth rate was 37.3 per

1,000 population, mortality was 17.9 per 1,000 population, the natural increase of population was 19.4 per 1,000 and infant mortality was 133.8 per 1,000 live births.

The government of the Union of Burma plans gradually to expand these zones and to include the entire country in the registration system.

MORBIDITY

According to incomplete data, in the cities alone, during 1959, 403 deaths from enteric fever and 705 deaths from dysentery were recorded. According to available information, breeding grounds for especially dangerous infections (smallpox and cholera) still exist in the country. It is true that the number of cases of cholera has decreased in recent years. In 1960 226 cases of cholera and 176 deaths from cholera were noted (in 1961 only 1 case of cholera morbidity was registered). Smallpox morbidity and mortality are still significant (Table 1.).

Table 1.

Morbidity and mortality from smallpox (in absolute figures)

Smallpox	1953	1954	1955	1956	1957	1958	1959
Morbidity	164	216	1,675	4,224	2,739	1,965	1,366
Mortality	18	32	319	1,495	759	397	411

In 1961 88 cases of smallpox, of which 5 resulted in death, were registered.

In 1958 76 cases of plague, 33 of which resulted in death, were registered. In 1961 41 cases of plague, of which 12 resulted in death, were noted.

In 1960 mass inoculations against particularly dangerous contagious diseases (Table 2) were carried out.

According to information from 288 hospitals 5,000 cases of beri-beri were recorded in 1955. Until recently

there were approximately 200,000 lepers in Burma. There were were 10 patients per 1,000 population, twice as many as India and Thailand. A widespread campaign was begun against this disease in 1952 with the participation of WHO.

Table 2.

Number of inoculations against dangerous contagious diseases
(1956, 1957 and 1960)

Year	Number of inoculations		
	Against smallpox	Against cholera	Against plague
1956	1,688,972	50,979	83,693
1957	1,296,547	--	--
1960	693,794	403,717	19,447

In June of 1957 42,000 lepers of whom 33,500 were treated with sulfanilamides were registered. In 1959 92 more deaths from leprosy were registered.

Leprosy remains a serious problem. During the examinations of school age children, it was noted that 36 out of 1,000 children are infected with leprosy. A campaign in the struggle against leprosy is planned from April of 1960 to the end of 1965.

Tuberculosis is a no less serious problem. In 1957, according to official, although far from complete, figures 2,739 cases of tuberculosis were recorded, of which 759 were fatal. During the BCG inoculation campaign a high percentage of infection of the population was established: 28% up to age 6, 53% up to age 14 and 81% over age 15. In 1951 a program for control of tuberculosis was developed. Mass BCG inoculations are being administered, and tuberculosis dispensaries have been opened in Rangoon and Mandalay. In 1956 ten inoculation teams gave 4,416,435 tuberculosis tests and inoculated 1,378,505 people with BCG. In 1956, in accordance with the program in the control of venereal diseases, 15 teams were operating in the country. The total number of consultations in the dispensaries was 180,038 as against 214,482 in 1955. During the last two years, serological research has also shown a certain decrease in

the number of positive cases: 15.2% in 1956 as against 16.3% in 1955.

According to extremely unreliable information more than half of the population suffers from malaria. Deaths from malaria (in the cities alone) equal

In 1953	--	2,014	persons
" 1954	--	1,298	"
" 1955	--	1,730	"
" 1956	--	1,673	"
" 1957	--	1,515	"
" 1958	--	914	"
" 1959	--	768	"

ORGANIZATION OF PUBLIC HEALTH

There is a ministry of public health in Burma with a department of public health including the following divisions: division of hospitals and dispensaries, laboratories and maternal and child welfare.

A national public health council has been set up as a consultative organ under the government.

In the administrative districts the public health service is administered by a state employee, who is a doctor and who occupies himself both with treatment and with preventive problems.

Until 1953 the problems of maternal and child welfare were handled by private and charitable organizations and only in the large cities at that. Since 1953, the public health service organization has included an administration for maternal and child welfare with two divisions: maternal and child hygiene and school hygiene.

To struggle against high infant mortality and to improve the service to the infant population, maternal and child welfare centers have been established at the city and rural health centers. There were 12 such centers by the end of 1956 in Rangoon, Mandalay, Bassein and Moulmein. All rural health centers provided assistance to pregnant women. However, the centers are still not staffed by a sufficient number of midwives and patronage nurses.

WHO and UNICEF provide assistance in the organization of measures for maternal and child welfare. At the present

time three ministries are occupied with the problems of environmental sanitation: the Ministry of Public Health, the Ministry of Social Affairs and the Ministry of Housing and Public Work.

Investigations carried out by these ministries show that the sanitary conditions in the cities and, particularly, in the villages of Burma are extremely unsatisfactory. In 65 cities investigated only 10% of the population had a satisfactory water supply.

A Council on Water Supply and on Rural Environmental Sanitation was established under the Ministry of Social Affairs. By the end of 1956 2,190 wells and 7,974 rest areas were constructed in the villages. The government of the Union of Burma has taken on the task of properly setting up a high quality water supply, the improvement of living conditions, etc. WHO also provides its assistance for these goals.

State hospitals provide primary help to the population. The indigent population receives medical assistance free, particularly for contagious diseases.

In 1960 there were 249 general hospitals with 10,898 beds (0.51 beds per 1,000 population); in addition to that there was one psychiatric hospital with 782 beds and one for contagious diseases with 200 beds. All in all, there are 253 hospitals in Burma with 12,410 beds or 0.58 beds per 1,000 population. Ten new hospitals were completed in 1957; work continues on the expansion of hospital buildings, in particular of general hospitals in Mandalay. A 200 bed hospital is being constructed in Taunggyi.

In 1956 outpatient help for the population was partially provided by 133 state dispensaries, 12 health centers in the cities and 296 rural health centers. Over 4 million inhabitants live in the region served by the latter.

A shortage of medical cadres is a serious problem for the Burmese public health service.

In 1960 there were 1,400 doctors and 562 assistants (total 1,962 doctors) in the country, that is one doctor per 15,000 population, 21 dentists, 2,273 nurses and 3,860 midwives.

The medical cadres are being trained at the two medical departments in Rangoon and Mandalay. Nurses are trained at schools in six state hospitals and at two private schools. There are also advanced courses for nurses and a school for doctor's assistants in Rangoon.

Burma is being given certain help in the area of public health by international organizations (WHO, UNICEF and the United Nations Technical Assistance Administration). In 1962 this aid was worth 963,559 US dollars (Table 3).

Table 3.

Assistance from international organizations in 1962
(in US dollars)

Allocation for	From regular WHO budget	From UN Techni- cal Aid	From other non-budget allocations
Total	87,389	74,170	802,000
From this total:			
for malaria control	--	40,620	690,000
for tuberculosis control	--	--	9,500
for leprosy control	21,870	--	50,000
for the organization of demographic statistics	20,708	--	--
for nursing	1,134	15,310	--
for maternal and child welfare	3,500	--	25,000
for mental hygiene	--	2,450	--
for environmental sanitation	2,200	15,790	27,500
for the training of medical personnel	37,977	--	--

VIETNAM (SOUTH)

Vietnam is located in Southeast Asia. It occupies the eastern coast of the Indochinese Peninsula and a number of small islands.

A tropical and monsoon climate with a high average temperature prevails in Vietnam. The annual rainfall averages between 1,500 and 1,900 millimeters. In the 1880's Vietnam was occupied by French colonizers and included in French Indochina.

The lengthy struggle for independence by the Vietnamese people was ended in 1945 with the victory of the anti-colonial August Revolution and the formation of the Democratic Republic of Vietnam.

However, in September of 1946 the French forces initiated military actions against the Republic which were continued until 1954. As a result of the victory of the Democratic Republic of Vietnam in 1954 a meeting was held in Geneva attended by the Ministers of Foreign Affairs of the USSR, the Korean Peoples' Republic, the United States of America, England, France and other states, and an agreement was signed for the reestablishment of peace in Indochina.

In accordance with this agreement a temporary line of demarcation was established between the Democratic Republic of Vietnam and South Vietnam, passing somewhat south of the 17th parallel and dividing the country into two approximately equal parts.

South of the 17th parallel lies the puppet republic of South Vietnam, occupying a territory of 170,806 square kilometers; the population, according to 1960 estimates, is 13,790,000 and is basically concentrated in the Mekong River Delta and along the sea coast. The principal city is Saigon with suburban Cholon and a population of over two million people. The population density is 79 per square kilometer.

The demographic information published in the WHO Annual is presented in Table 1.

Table 1.

Natural population shifts

Year	Births	Deaths	Natural increase	Infant mortality per 1,000 live births
	per 1,000 population			
1957	33.9	7.1	26.8	33.4
1959	31.0	6.6	24.4	34.4

It must be understood that this information does not in any way reflect the actual situation. Also information on mortality and morbidity and their causes is almost completely lacking and that which is available is unreliable. Data published by WHO on mortality and morbidity rates and their causes in South Vietnam are given in absolute figures in Table 2.

In 1960 471,528 cases of malaria, 98,131 cases of tuberculosis, 44,026 cases of trachoma, 16,807 cases of whooping cough, 10,205 cases of measles and 5,667 cases of syphilis were recorded in South Vietnam.

In 1956 a state secretary who is directly responsible to the president was placed at the head of the Ministry of Public Health. He has three assistants: an office director, a director for the public health and hospital service and a general administrative director.

The functions of the state secretary include:

- 1) preparation and application of laws relating to the activities of medical institutions, pharmacies, doctors, dentists and technical personnel;
- 2) control over pharmacies, laboratories and the use of narcotics;
- 3) the control of venereal diseases, cancer, tuberculosis, leprosy, malaria, trachoma and epidemic diseases;
- 4) the prevention of infectious diseases and social hygiene;
- 5) the training of cadres among secondary medical personnel;
- 6) the development and implementation of the plan for the supply of sanitary equipment and
- 7) development of ties with the Red Cross and the international

Table 2.

Infectious and parasitic morbidity and mortality from WHO data (in absolute figures)

Disease	1951	1952	1953	1954	1955	1956	1957	1958	1961
Cholera									
morbidity	18	7	3	—	—	—	—	—	—
mortality	4	6	3	—	—	—	—	—	—
Smallpox									
morbidity	2 640	2 236	1 582	3 588	932	—	—	30	—
mortality	1 598	1 077	704	1 518	200	—	—	11	—
Dysentery									
morbidity	—	—	—	22 073	37 061	34 878	918	41 730	—
mortality	—	—	—	—	—	—	—	34	—
Whooping cough									
morbidity	—	—	—	5 470	5 432	—	—	—	13 972
mortality	—	—	—	—	—	—	—	—	—

Enteric fever and paratyphoid

morbidity	1 396	—	—	—	1 769	2 169	—	2 002	3 079
mortality	118	—	—	—	78	50	—(9)	5	—

Malaria

morbidity	—	—	255 364	—	—	—	1 296	536 469	308 105
mortality	—	—	—	—	—	—	—	631	—

Influenza

morbidity	—	—	—	—	—	—	—	27 729	53 246
mortality	—	—	—	—	—	—	—	27	—

Syphilis

morbidity	—	—	—	—	—	—	—	11 247	—
mortality	—	—	—	—	—	—	—	—	—

Infectious hepatitis

morbidity	—	—	—	—	—	—	—	2 732	6 427
mortality	—	—	—	—	—	—	—	—	31

Trachoma

morbidity	—	—	—	—	—	—	—	35 715	—
mortality	—	—	—	—	—	—	—	—	—

organization of the Red Cross as well as with WHO and international medical organizations.

A council on public health has existed since 1951 and is a consultative organ under the ministry. The Ministry of Public Health does not have a statistical service. The South Vietnamese government admits that there are almost no maternal and child welfare centers in the country. There is a shortage of personnel and funds. There are individual children's and women's consultations. Certain assistance in the area of maternal and child welfare is provided by WHO and UNICEF (Table 3.).

Table 3.

Aid from WHO and UN Technical Aid in 1958
(in US dollars)

Type of allocation	WHO	UN	Total
For tuberculosis control	--	10,937	10,937
For the organization of public health	1,500	--	1,500
For maternal and child welfare	--	34,399	34,399
For environmental sanitation	18,036	--	18,036
Total	19,536	45,336	64,872

There are general and specialized hospitals in the large cities and provincial centers. There is a shortage of medical cadres, primarily of dentists.

Medical institutions are concentrated in Saigon where in 1956 there were a 375 bed hospital at the university, a 260 bed children's hospital, a 870 bed multipurpose hospital, a 320 bed hospital for contagious diseases, a 400 bed hospital for tuberculosis patients, three dental centers and two maternity hospitals.

In 1960 there were in South Vietnam 5 general hospitals with 2,887 beds, 38 provincial hospitals with 7,274 beds, 42 private hospitals with 3,215 beds, one psychiatric hospital with 1,071 beds and several specialized hospitals with 6,211 beds. A total of all the hospitals in South Vietnam amounts to 20,658 beds or 1.5 beds per 1,000 population.

There were 489 doctors in 1960 (not counting the medical personnel in the army), that is on the average 28,100 inhabitants per physician; there were also 71 dentists and 1,814 nurses. In 1956 nine hundred students were studying at the department of medicine at the Saigon State University. The course takes 6 years.

With such a "provision" for the population of medical and secondary medical personnel medical help is naturally not available. The physicians and the hospitals serve the privileged and wealthy strata of the population (the national bourgeoisie, the employees, the police and the army).

ISRAEL

Israel is located along the eastern coast of the Mediterranean Sea. Its territory, according to a UN decision in 1947, is 14,000 square kilometers; actually though, following the 1949 Armistice Agreement signed with the Arabs, the territory is 20,700 square kilometers.

In 1961 the population was 2,183,000, of which the majority are Jews and approximately 200,000 are Arabs. According to (1955) data, 1,271,000 persons live in the cities, and the rural population is 517,000 including 205,000 Bedouin-nomads.

The country is divided into six administrative districts, each of which in turn is subdivided into 12 regions.

Israel is a unicameral republic. The organization of the state is determined by a Transitional Law adopted by the constituent assembly in 1949. The head of state is a president who is elected by parliament for five years.

The highest legislative organ in the country is the Knesset (Parliament), consisting of one house elected on the basis of direct proportional elections for a four year period and composed of 120 persons. The Council of Ministers is responsible to parliament.

The executive organs are represented at the local level by municipal and, in certain cases in the agricultural areas, by regional councils that are under the administrative wardship of the government.

The Arab population is subjected to discrimination and in certain areas has been deprived of self-government.

Table 1.

Natural population shifts

Year	Coefficient of births per 1,000 population	Coefficient of general mortality	Natural growth	Coefficient of infant mortality per 1,000 live births
1954	29.2	6.8	22.5	39.8
1955	29.2	6.1	23.1	37.3
1956	28.8	6.6	22.2	40.3
1957	28.3	6.5	21.8	38.6
1958	26.5	5.9	20.6	34.5
1959	26.7	5.9	20.8	30.1
1960	26.9	5.7	21.2	30.8

For the Jewish population alone in 1959

Coefficient of births	24.0
Coefficient of general mortality	5.6
Natural growth	18.4
Coefficient of infant mortality	27.2

As can be seen in Table 1 a high birthrate and a low mortality rate are noted in Israel. The substantial population growth is explained by the high rate of emigration from the capitalist countries of Europe, Asia and Africa observed following World War II.

Israel is an agrarian country with a plantation economy and an industry producing consumer goods. The position of foreign capital and, primarily, of American capital is extremely strong in the economy of the country. In 1953 foreign capital investment in Israel amounted to 141.7 million dollars.

The basic branches of agriculture are citrus orchards, vegetable farms and a somewhat less well developed cultivation of grain. A large portion of the land belongs to large trusts that rent it to agricultural cooperatives and individual farmers.

The basic branches of industry include the production of food-stuffs and mass consumer goods, fertilizers, chemicals, cement and others. Of the total number of 20,300 enterprises 18,400 are petty with small numbers of workers. The more concentrated branches are the electrical,

textile, chemical and cement industries and that of the processing of imported diamonds. Large monopolies rule in all of these branches. Many enterprises are owned by capitalist cooperatives.

Economic development is retarded by large military expenditures. In July of 1951 there were 50,000 unemployed and 100,000 partially unemployed persons. In 1957 the average wage of a worker and employee was 265 Israeli pounds per month while the average expenses of a Jewish family (less rent for a home) amounted to 294 Israeli pounds per month. An existing work and social security law regulates the length of the work day, envisages annual vacations and limits child and woman's labor at enterprises. However, this law is frequently violated.

Elementary education is obligatory for all children from ages 6 through 13. There are two universities, one with a school of medicine and another without a school of medicine, an Institute of Technology in Haifa and a law school and a school of economics in Haifa and Tel-Aviv.

MORBIDITY

Of the contagious diseases the most prevalent are bacillary dysentery, scarlet fever, diptheria, infectious hepatitis and salmonellosis.

Contagious diseases control has already provided some results. Thanks to the wide use of DDT, kala-azar and cutaneous leishmaniasis, widely prevalent up to 1948, have been almost completely eliminated. There were 66 spotted fever cases in 1961. In 1961, according to official WHO data, 316 persons suffered from enteric fever. Smallpox vaccinations have been obligatory since 1950, as a result of which not one case of smallpox has been registered at the present time. Dysentery is still widespread, but illness from it is being reduced as a result of the improvement in health conditions.

In 1958 there were 6,119 cases of dysentery. In 1958 there were 475 diptheria patients of whom 3 died. One of the serious diseases remaining among children is diarrhea, mortality from which has been substantially lowered, but the morbidity still remains high.

A difficult problem is presented by polio, an epidemic of which struck 1,600 people in 1950. In recent years polio annually struck 600 to 800 children of whom 80% were under 4 years of age. In 1953 in its struggle against polio the Ministry of Public Health established a rehabilitation center in Sarafand where hundreds of children are treated. A special laboratory has been producing a vaccine against polio since 1956. In 1961 210 persons were suffering from acute polio.

Previously tuberculosis morbidity among the local Jewish population had been insignificant, but among the emigrants it reached

high figures, from 220 to 230 persons per 100,000 population. At present it has been reduced, thanks to a broad program of BCG inoculations. In 1954 a well-known tuberculosis clinic-dispensary was opened. All work in malaria control is being carried out by the Ministry of Public Health. The number of new malaria cases was reduced from 302 in 1954 to 33 in 1961 (Table 2).

Within the same period 3,000 patients suffering from hertes tonsurans and 5,000 suffering from trachoma were treated annually.

Mental diseases pose a serious problem for Israeli public health. There are not enough beds and qualified personnel. A special institute for the rehabilitation of the mentally ill was opened recently, and mental hygiene institutions for adults and for the observation of children and a psychiatric consultation service for criminals have been established. A rehabilitation center at Nes-Tsion, mental hygiene stations in the three principal cities, psychiatric services for prisoners and mental hygiene service in the schools have been established.

The Ministry of Public Health recognizes that it is impossible to solve the problem in the struggle against mental diseases only by increasing the number of beds.

A three year plan for psychiatric care has been developed but has not as yet been implemented.

The morbidity rate of diseases not subject to obligatory registration is unknown, but suppositions can be made from the information on mortality (Table 3).

From data provided in Table 3 it can be seen that the leading causes of death are cardiovascular diseases (243.5 per 100,000 population), malignant neoplasms (93.9) and prenatal mortality which, however, is clearly being reduced.

Until 1918 the territory of Palestine did not have an organized system of public health at its disposal. Since 1918, the British Mandate Administration, proceeding from military interests, introduced into Palestine certain laws on sanitation control.

In 1948 a Ministry of Health was established and the creation of local agencies was begun.

The Ministry of Health includes the following departments: epidemiology, demographic and health statistics, tuberculosis, venereal disease control, malaria, sanitation, laboratory services for general health, maternal and child welfare centers, mental hygiene, dental assistance, nursing, health education and medical education.

A consultative council on public health problems was organized

Table 2.
Morbidity of infectious and parasitic diseases
(in absolute figures per 100,000 population)

Disease	1955		1956		1957		1958		1959		1960		1961		1962	
	A	K	A	K	A	K	A	K	A	K	A	K	A	K	A	K
Diphtheria	1 878	79,8	895	48,9	693	42,0	475	23,8	337	16,9	243	11,6	—	—	—	—
Tuberculosis (all forms)	1 042	58,9	893	48,8	1 027	35,0	—	—	—	—	802	38,2	—	—	—	—
Pulmonary Tuberculosis	966	55,3	837	48,7	960	—	—	—	—	—	—	—	—	—	—	—
Dysentery	9 365	535,6	7 843	432,3	—	—	6 519	325,9	9 532	453,9	—	—	—	—	—	—
Paratyphoid fever	179	10,3	126	6,9	130	—	640	3,2	637	3,3	—	—	316	14,4	495	21,5
Zoonosis	88	5,1	65	3,5	—	6,8	—	—	—	—	—	—	—	—	—	—
Infectious hepatitis	—	—	—	—	—	—	1 541	77,0	—	—	144	6,9	66	3,0	—	—

Exanthematous fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Recurrent typhus	—	—	—	—	—	—	—	—	18	0,86	42	2,0	29	1,3	21	0,9
Polio	—	—	—	—	—	—	573	28,7	51	2,4	38	18	210	9,5	16	0,7
Measles	—	—	—	—	—	—	—	—	27 330	1301,4	5 967	284,1	4 265	194,4	19 190	834,3
Scarlet fever	—	—	—	—	—	—	—	—	3 211	152,9	1 995	95	156	52,5	900	39,1
whooping cough	—	—	—	—	—	—	—	—	6 810	324,2	4 547	216,5	749	34,0	695	30,2
Meningococcal infections	—	—	—	—	—	—	—	—	32	1,52	—	—	20	1,0	67	20,9
Brucellosis	—	—	—	—	—	—	—	—	48	2,23	—	—	—	—	—	—
Infectious encephalitis	—	—	—	—	—	—	—	—	32	1,52	—	—	—	—	—	—
Bilharziasis	—	—	—	—	—	—	—	—	—	—	24	1,1	—	—	—	—

A— absolute figures K—coefficient

Table 3.

Morbidity by cause (per 1,000 of the Jewish population)

Disease	1955	1956	1957	1958	1959
Infectious parasitic diseases	20.8	17.8	14.0	--	2.7
Pulmonary tuberculosis	5.9	5.9	4.6	4.21	5.4
Tuberculosis of other organs	0.9	0.8	0.5	0.45	0.7
All forms of tuberculosis	6.8	6.7	5.1	4.66	--
Influenza	0.7	0.6	--	1.12	1.9
Malignant neoplasms	90.0	94.5	93.9	4936.5	98.5
Diabetes	3.3	3.7	4.3	2.7	3.1
Vascular disorders of the central nervous system	61.2	70.5	68.9	65.07	69.4
Acute rheumatism	0.6	0.4	0.8	--	0.3
Chronic rheumatic carditis	9.7	11.2	13.1	10.1	10.2
Atherosclerosis and degenerative heart diseases	120.3	130.6	132.1	125.09	133.2
Other heart diseases	12.5	13.0	15.6	10.27	12.3
Hypertension with heart diseases	5.3	6.1	7.8	8.92	6.0
Hypertension without heart diseases	7.1	5.7	5.2	5.5	5.3
Pneumonia	21.2	24.9	--	21.54	19.2
Bronchitis	3.3	2.8	--	2.8	3.1
Liver cirrhosis	3.3	3.6	--	2.97	4.1
Nephritis and nephrosis	8.1	6.7	--	5.67	5.6
Prostate hypertrophy	46.0	64.5	--	--	3.6
Complications during pregnancy, birth and the postnatal period	73.2	48.4	--	--	2.3

in 1953 and includes 40 experts in various branches of medicine. The council operates in close contact with the departments of the ministry.

Six districts and 14 regional health departments are under the ministry. As in all capitalist countries, municipal public health agencies occupied with sanitation and problems of hygiene, school hygiene and problems of maternal and child welfare exist in Israel.

MATERNAL AND CHILD WELFARE

Approximately 589 maternal and child welfare centers (1960) exist in Israel. Over 60% of the pregnant women are under medical observation of these centers from the fifth month of pregnancy.

The functions of the centers are limited. They keep an eye on the educational and training institutions (kindergartens and schools), carry out epidemiological control and house calls and provide inoculations. They do not provide treatment. A serious obstacle in the improvement of the work of these institutions is the shortage of qualified personnel. The ministry, in an attempt to improve the situation, has organized six month courses for improving the qualifications of the public health nurses. The same type of school was set up by the charitable medical organizations in Haddasa. Over 95% of the births occur in maternity hospitals.

The Ministry of Public Health is also responsible for providing medical assistance to 90% of the students in the elementary schools, 50% of the students in the secondary schools and 75% of the pre-school age children. The number of children's consultations (clinics) has increased recently from 357 to 485.

The Ministry of Labor is in charge of industrial health in Israel. Laws have been adopted on labor protection, on safety measures and on industrial hygiene. The Assistance Fund of labor federation patients (trade-union center) has a small number of nurses. On the whole, industrial health is given very little attention. The Ministry of Labor provides almost no funds for the organization of the medical service to workers, and the Ministry of Health, in general, ignores this public health section.

In 1954 the national insurance institute began to operate, providing insurance for maternity, for injury at work and for old age. In 1955, 1,223,561 persons and, in 1956, 1,276,771 persons were insured by insurance organizations.

The Ministry of Health provides financial assistance to the health insurance organizations available and, in particular, to the "Kupat Holim" hospital fund, subsidizes public hospitals, covers three fourths of the expenditures for treatment of patients insured by Kupat Holim,

provides subsidies to insurance agencies for the maintenance of clinics and of maternal and child welfare stations and deducts 2.7% from the general wage fund for the health insurance of its employees.

The Ministry of Health expends three fourths of its budget on the maintenance of hospitals, and, consequently, very little remains for health measures. A health education section for the training of cadres in health education and for the publication and distribution of materials was established under the ministry in 1956. In the sphere of sanitation and hygiene the Ministry of Health is occupied with the problems of water purification, sewage removal and control over the manufacture and sale of foodstuffs.

The Ministry of Health attempts to decentralize sanitation control in order to place greater responsibility for the health of the population on the local organs. In 1954 a Regional Services Administration with regional health sections was organized.

The country is divided into five health districts and 14 regions which are headed by physicians. They have at their disposal 53 doctors, 212 nurses, 8 sanitation engineers, 90 health and anti-malaria inspectors, 4 pharmacists and 80 other workers (1955). The health inspectors are occupied with combatting infectious and parasitic diseases. They also carry out health examinations in industrial enterprises and trade and living quarters.

In Israel in 1959 there were 121 hospitals with 14,429 beds. These included 45 general hospitals with 6,414 beds, 4 tuberculosis hospitals with 695 beds, 38 psychiatric hospitals with 4,760 beds, 30 hospitals for chronic illnesses with 1,823 beds, one hospital for lepers with 40 beds and 4 others with 635 beds.

Of the total number of hospitals in Israel only 20 are state owned, the remainder belonging to voluntary organizations (Kupat Holim and others). The coefficient of providing patients with beds in 1958 reached 7 per 1,000 population. A significant role in the hospital situation is played by voluntary public health organizations such as the Kupat Holim hospital fund organized by the General Labor Federation which serves approximately 60% of the population. It maintains 14 hospitals and over 800 dispensaries and clinics in the rural areas. Fund institutions are organized at 550 settlements, of which 45 are in the cities and the remainder in rural areas. Of the social organizations one should mention the Haddasa medical organization, established by the American women's Zionist association. It operates a 470 bed university hospital, as well as 27 clinics. It also owns a 130 bed tuberculosis hospital in Safat, the "Negev" Hospital in Beersheba (100 beds) and 34 maternal and child welfare centers as well as a center for the protection of the health of students and a children's polyclinic.

Of the other public and charitable organizations the Red Cross,

the "Mogen David Edam," the Anti-tuberculosis League, the Society for Assistance to Cripples and the association to control polio should be noted.

A council for the coordination of the work of all public and voluntary organizations has operated since 1954.

OUTPATIENT ASSISTANCE

In general in Israel outpatient aid is provided by physicians in private practice, primarily in the cities. In addition to this the organization of health centers has been started. Their establishment was preceded by lengthy discussions, since many voluntary organizations are against the unification of health services under the aegis of the government controlled health centers. So far the first four health centers have been opened and provide ambulatory service and assistance at home.

According to data from the Ministry of Health, a segregation policy is being practiced in relation to the Arabs. Medical service to the Arab population is provided by specially detailed medical institutions of the ministry. The hospital for Arab tuberculosis patients is located in Nazareth. State hospitals and regional health inspectors serve each commune as a whole, but subsidies from the ministry for the maintenance of clinics are provided separately to the local organs of Arab government. In the villages where no medical institutions supported by the local Arab government exist the ministry serves the population directly through periodic visits to the villages by a doctor and a nurse. A special medical service to the seminomadic Bedouin tribes has been organized.

Medical cadres. In 1960 there were 5,225 physicians (one per 400 population), 1,123 dentists, 292 midwives and 1,175 pharmacists, 1,700 with degrees and 3,300 without degrees.

There were 376 medical students, of whom 72 graduated, at the university medical school during 1956-1957. At the university there is a dental school and a school of pharmacy. The Ministry of Health plans to establish a public health school.

There are 12 schools with a three year course for the training of nurses, 4 schools for the training of pediatric nurses and one school for the training of nurses in physiotherapy. Recently, schools and courses for advanced work for sanitation workers have been established. Also there are a three year course at a school for the training of industrial hygiene specialists, several schools for the training of laboratory technicians and permanent courses for X-ray technicians.

There is a shortage of nurses. Physicians and nurses are unequally distributed across the country: 87% of the nurses live in the cities and in the suburbs.

PUBLIC HEALTH BUDGET

Approximately two thirds of the budget for the Ministry of Health is spent on the maintenance of state hospitals, and the expenses for hospitals in general (grants to public organizations) make up three fourths of the budget.

In 1954 WHO helped to organize and equip a tuberculosis clinic in Jaffa and to supply the personnel for a mental therapy school in Sarafand. For allocations by international organizations for assistance in the area of public health see Table 4.

Table 4.

International Assistance in 1962 (in US dollars)

Allocation for	Regular WHO Budget	UN Technical Aid	Other Non-budget Funds	Total
For the organization of public health	--	2,000	--	2,000
For the control of mental diseases	6,900	--	--	6,900
For the training of medical personnel	33,247	--	18,600	51,847
Total	40,147	2,000	18,600	60,747

The 1960-1961 state fiscal budget amounted to 1,726,000,000 Israeli pounds, of which 55,700,000 pounds were allocated to the Ministry of Health for expenditures on public health and 13,000,000 pounds to the other administrations. The total for public health was 68,700,000 Israeli pounds or approximately 4% of the budget. This comes to 32.4 pounds per inhabitant. Assistance from international organizations amounted to approximately 3 cents per inhabitant in 1962.

INDIA

During the course of many years India was a British colony. On 15 August 1947, under pressure from a powerful national liberation movement encompassing the entire country, the English parliament was forced to adopt a law granting independence to India.

The territory of the former colony of India was divided into two states, India and Pakistan, which acquired dominion status within the British Commonwealth of Nations. On 26 January 1950, India was declared a sovereign republic. It, as before, is a part of the British Commonwealth. In India executive power belongs to the president and a bicameral parliament.

The basic administrative unit is a state, of which there are 16 in India. In addition to the central government agencies there are several dozen thousand local municipalities that have to supervise road construction, water supply, sewage, environmental sanitation, etc.

The total area occupied by India in 1961 was 3,267,000 square kilometers. According to the 1961 census there were approximately 438 million persons. The average population density is 123 persons per square kilometer. Eighty-two percent of the population lives in rural areas. A very high general and infant mortality was observed in India prior to its liberation (Table 1).

Demographic data refers not to the entire country but only to the so-called registration zones. Since in India the count of the number of births and deaths is incomplete, the enumerated indices of the official statistics appear to be understated. The results of individual, selected investigations show the fact that the official information on mortality has been understated by not less than 13% and on infant mortality by 44%.

As a result of the high birthrate and the relatively low average life expectancy (42 years), youth predominates within the age structure.

Table 1.

Natural population shifts

Years	Births	Deaths	Natural growth	Infant mortality per 1,000 live births
	per 1,000 population			
1930-1934	34.8	23.7	11.1	176.2
1947	26.6	19.7	6.9	146
1950	24.9	16.1	8.8	127.1
1955	27.0	11.7	15.3	103
1956	21.6	9.8	11.8	102
1957	21.5	11.0	10.5	98
1958	25.1	11.3	13.8	92
1959	25.7	12.1	13.6	86.7
1960	22.4	9.4	13.0	--
1961	27.9	12.2	15.7	--

MORBIDITY AND MORTALITY

Morbidity and mortality data in India are incomplete because there is no single system in the country for their count. Obligatory registration is maintained only for particularly dangerous infectious diseases (cholera, plague and smallpox) and deaths from them are better accounted for than morbidity.

The dynamics of mortality from particularly dangerous infectious diseases is evidence of the fact that in the years following the proclamation of independence it was substantially reduced, although its level continues to remain comparatively high (Table 2).

The most important public health problem in India is posed by malaria control. According to approximate calculations approximately 200 million persons live in malarial areas and are subjected to the risk of being infected by malaria. According to information from the Ministry of Health, quite recently malaria annually infected on the average approximately 57 million persons. If one assumes that all of the patients went through one bout with the disease during the year, then the work losses linked with the disease would amount to 171 million man-days per year.

Table 2.

Deaths from particularly dangerous infectious diseases¹

Year	Plague		Cholera		Smallpox	
	absolute number	per 1,000 people	absolute number	per 1,000 people	absolute number	per 1,000 people
1948	24,014	0.09	160,328	0.7	42,442	0.2
1950	19,591	0.06	103,649	0.4	79,821	0.3
1955	231	0.00	14,016	0.03	32,032	0.1
1956	246	0.01	24,297	0.06	23,760	0.5
1957	167	0.00	52,078	0.2	60,146	0.2
1958	206	--	49,895	--	161,251 ²	--
1959	12	--	5,372	--	11,877	--
1960	26	--	5,799	--	7,876	--
1961	55	--	16,436	--	12,341	--
1962	88	--	8,639	--	11,402	--

¹ According to registration data² Epidemic

In recent years, malaria morbidity has been sharply reduced.

Annual malaria morbidity
(per million cases)

1952/53.....	75
1953/54.....	60.7
1954/55.....	41.2
1955/56.....	19.3
1959/60.....	1.0

Approximately 2 and a half million people suffered from tuberculosis in India annually, and approximately 500,000 of these died. Work losses reached 900 million to one billion man-days per year.

Venereal diseases are very prevalent in the states of Bombay, West Bengal and Madras. Approximately 5 to 7% of the population suffers from syphilis. The number of recorded cases of leprosy exceeds one million. Certain regions in the states of West Bengal, Bekhar, Orifa, Madras and others are most unfavorable in regard to leprosy.

Filariatosi exists almost everywhere with the exception of Kashmir and Jammu, Himachal Pradesh, Penjaba, Rajasthan and a large portion of the state of Maisur. The state of Kerala, where the endemiti city index is equal to 30 to 60% in places, is particularly unfavorable with regards to filariatosi. From 40 to 64 million persons live in the region endemic to filariatosi.

Particular attention is paid by the public health organs to the elimination of malaria. Three hundred and ninety anti-malaria teams were functioning in the country during 1961. It is assumed that by 1966 malaria will be eliminated as a mass disease.

An intensive struggle is being waged against tuberculosis. By 1957 over one hundred and four million tuberculosis tests had been made. By the end of 1961 the number of persons examined reached 158.87 million, of whom 55.67 million received BCG inoculations.

At the time of the achievement of independence there were only 113 anti-tuberculosis dispensaries, 65 hospitals and sanatoria with 7,000 beds, 250 doctors-phthisiologists and 500 nurses and other workers in India.

At present in the country there are 224 dispensaries, 141 hospitals and sanatoria with 25,748 beds and 167 medical teams combatting tuberculosis; there are six centers functioning for the training and specialization of medical personnel. In accordance with the project developed by the planning commission for successful tuberculosis control the country needs not less than 4,000 dispensaries, 500,000 beds in hospitals and sanatoria-health resort institutions, 15,000 doctors-phthisiologists, 50,000 trained nurses and 12,000 patronage workers.

The struggle against filariatosi is led by the malaria institute. Forty-six stations have been opened to study these diseases and to combat them. A scientific research institute in Chingleput has been established for the struggle against leprosy. There are 40 centers that occupy themselves with finding and treating patients in all states. The third five year plan has allocated 70 million rupees for leprosy control.

For the purpose of providing assistance to India in combatting smallpox the Soviet Union has given the government of India free of charge 12 million doses of anti-smallpox vaccine.

ORGANIZATION OF PUBLIC HEALTH

The Ministry of Health of India is the highest coordinating agency in the area of public health. All measures are organized and implemented directly by the departments (ministries) of health of the states. The central ministry is occupied with problems of interstate public health and quarantine and develops the program for higher medical

education. At the same time it supervises the work of the state ministries of health, determines public health policy, coordinates the implementation of public health programs and provides technical and financial assistance. In 1952 in accordance with the constitution a central public health council was created that includes all the state public health ministers. The council determines public health policy, coordinates the execution of preventive measures and scientific-research work and appoints special committees to study vital public health problems (the development of plans for leprosy control, a study of the work of the secondary medical personnel, development of programs and plans for medical education, etc.).

The organization of the Central Ministry of Public Health includes the general directorate of public health, the central departments and institute administration, the administration for foreign relations, the administration for the standardization of medicines and control over their import, the administration for interstate quarantine, the administration for service to state employees, the administration for serology inspection and certain other departments.

The All-Indian Institute of Medical Sciences in Delhi, the All-Indian Medical Corporative Organization and the Central Scientific Research Institutes (the Institute of Hygiene and Public Health in Calcutta, the Institute of Malaria in Delhi, the Cancer Institute in Bombay, the Psychiatric Institute in Bangalore, the Leprosy Institute in Madras, the Bacteriological Institute imeni V. M. Khavkin in Bombay and others) are under the Ministry of Health.

There is a department of public health headed by a minister in each state. Local public health agencies implement their own programs of medical assistance and public health. In a majority of the small populated areas and villages there are no public health workers. Only in several populated rural areas are there practicing physicians, small hospitals and pharmacies.

Public health is developing according to state plans. The establishment of new medical colleges and scientific-research institutes, the carrying out of statistical investigations, the training of cadres and the development of a network of medical institutions have been planned.

Along with the representatives of modern medicine physicians of the old Indian medicine (Aurveda and Unani) provide medical aid to the population in India. The basic form of medical service is provided by doctors in private practice. Medical assistance to government employees and to certain categories of workers is free and is paid for by the government. Medical assistance is also free to patients with infectious diseases, and certain types of help are provided for mothers and children. However, the amounts of free medical assistance are still extremely insignificant.

The Central Ministry of Public Health coordinates work on sanitary and anti-epidemic measures.

The specific management of sanitary and epidemiological work is under the state public health departments. Locally, this work is managed by municipal public health agencies. When an epidemic strikes, anti-epidemic teams, led by doctors, are sent to the locality.

A very important problem in Indian public health is environmental sanitation. The government of India retained a heavy legacy from the English colonizers.

Health conditions in rural regions are particularly unfavorable. Even in the cities, the population of which increased sharply during the past two decades, conditions are not completely satisfactory. In Bombay and in other cities approximately 90% of the families of workers live in a single room. Many of the homes do not have bathrooms and are poorly ventilated.

The implementation of the state program for water main and sewer construction has been going on since 1954 in India. In the third five year plan 1,280 million rupees have been assigned for the implementation of this program. In 1961 80 million people had use of running water and wells as against 20 million people in 1954.

MATERNAL AND CHILD WELFARE

The new constitution of the Republic of India states that the government is to carry out a policy directed towards the realization of the principle of equal pay for equal labor by men and women (Article 39). Article 24 of the constitution forbids the use of child labor in factories, mines and other enterprises. The law on maternal and child welfare forbids women to work at night and also forbids the use of women for underground work in mines.

All measures in the area of maternal and child welfare are coordinated by the special counselor in the Ministry of Health. At the present time in the departments of health of the 15 states there is a special bureau for maternal and child welfare. Courses for training medical workers occupied with maternal and child welfare problems have been started at the 19 medical schools. Approximately 350 patronage workers are being trained.

In the first five year plan the training of 600 patronage workers and 2,400 midwives was planned and, according to the second five year plan, 1,700 more patronage workers are to be trained.

In 1959 there were 3,622 maternal and child welfare centers in operation. Such centers include a doctor, a patronage worker, 4 midwives and medical assistants. Midwives provide house calls to approximately 15% of the population. In addition to the maternal and child welfare centers

201 dispensaries for maternal and child welfare have been established; each of these serves a population of 65,000 persons.

In 1956 the union of the society of the Red Cross and the Red Crescent Society of the USSR opened a scientific-research center for child welfare in Delhi.

As a result of the applied measures, maternal mortality dropped from 20 per 1,000 births in 1939 to 10.4 per 1,000 births in 1959. At the same time it should be remembered that the high rate of maternal mortality in India, in addition to everything else, is explained by very early marriages.

India is receiving assistance from UNICEF and WHO in the area of maternal and child welfare. In 1957, in accordance with the program of technical assistance, WHO allocated to India 150,000 dollars for maternal and child welfare needs; from 1947 to 1956 UNICEF provided 15 million dollars. In 1957 for these purposes UNICEF allocated 1,518,900 dollars to provide assistance to mothers and children in rural areas and 38,000 dollars for the training of pediatricians. To supply dry milk to children 383,900 dollars were allocated.

MEDICAL SERVICE TO THE WORKERS

Social Insurance

The constitution of India requires that "the health and strength of the working men and women, as well as that of young children, not be subjected to evil use and that citizens not be forced, as a result of economic necessity, to turn to occupations not in accordance with their age and strength." Special agencies for industrial public health do not exist in India. Social insurance for workers was instituted in 1952. By 1957 1,125,000 workers in ten states were covered by insurance (approximately 50% of all workers occupied in industry come under this law). The insured who contracts tuberculosis has free medical care during the course of 18 to 28 months and then receives financial assistance for 18 weeks in the case of the loss of the ability to work. Individuals who have suffered from industrial injury receive free artificial limbs. The families of the insured are given outpatient care.

In accordance with the 1948 Factory Law, enterprises with 500 workers or more must have a medical station with a nurse. It is noted, however, that, following the adoption of the law on state insurance, certain enterprises began to curtail the medical care stations for their workers.

About 667 medical personnel work in the state insurance system of workers in Calcutta and Howrah. In Delhi a medical service insurance

system for state employees was established. The service has at its disposal 2 hospitals, 20 dispensaries and 3 mobile clinics. The patients are taken care of by 91 doctors.

Approximately 177,000 rupees are expended annually for research work in the area of industrial health. This sum is allocated by the Indian Council of Medical Research.

MEDICAL SERVICE TO THE RURAL POPULATION

Health conditions in the majority of the rural populated areas are unsatisfactory. Only 6% of India's population has the use of a good quality water supply. Environmental sanitation control in the village was begun only after India's liberation.

In 1952 the implementation of measures for the improvement of the welfare in rural regions was begun in India. The execution of 55 projects was initiated in various regions of the country. Each project encompasses approximately 300 villages with a population of up to 200,000 persons. These projects envisage the development of agriculture, animal husbandry, irrigation systems, public health, education and other measures in rural regions. The first stage in these measures is to be executed within three years. As a result of numerous requests a State Service for the Improvement of Life was created. The entire country must be divided into 5,000 regions, each of which will include approximately 100 villages and 66,000 inhabitants. In 1961 there were 2,120 regions, including 272,756 villages and 149.8 million inhabitants, included in the state service for the improvement of life.

In the rural areas the basic establishment for rural public health is the primary health center. These centers must provide complex treatment and preventive service. The primary health center includes a dispensary, a 6 bed hospital or larger, child and maternity consultation, a small surgery department and a small laboratory. Every primary center has 3 assisting centers under it that are basically occupied with maternal and child welfare problems. The primary health center has a doctor (the head of the center), a pharmacist, a patronage worker, midwives with degrees and without and a health inspector.

The functions of the centers include medical service, maternal and child welfare, control over sewage removal, contagious disease control, health statistics, health education and birth control. While carrying out anti-epidemic measures, the central government coordinates the work of the health centers. The heads of local public health agencies have general control over the work of the health centers.

According to the first five year plan for the organization of health centers 200 million rupees were allocated and according to the

second five year plan for the improvement of the welfare of the rural communes 430 million rupees were allocated. By the end of 1956 725 health centers were already in existence.

HOSPITALS

In 1960 there were 2,119 hospitals with 187,765 beds in the country. On the average there were 0.44 beds per 1,000 population. Only in two regions, in Delhi and in Pondicherry, did the coefficient of hospital beds exceed the unit, 2.37 and 1.92 per 1,000 respectively.

In the more populated states of Uttar Pradesh (72.5 million persons) and Bihar (45 million persons) the supply of hospital beds for the population is the lowest and equals 0.18 per 1,000 inhabitants in Bihar and 0.23 in Uttar Pradesh.

The overwhelming majority of hospitals in India are of a general type. Of the specialized hospitals, in 1960 there were 77 anti-tuberculosis institutions with 12,613 beds, 165 hospitals for the treatment of leprosy with 24,027 beds and 35 psychiatric hospitals with 14,900 beds.

MEDICAL CADRES

India is experiencing great difficulties as a result of the shortage of medical personnel.

The development of the training of cadres and the needs (according to the calculations of Indian authors) in medical workers are presented in Table 3.

Table 3.

Medical personnel				
Specialty	1950/51	1955/56	1960/61	The number needed
Physicians	59,000	70,000	80,000	90,000
Nurses	17,000	22,000	31,000	80,000
Midwives	18,000	26,000	32,000	80,000
Visiting nurses	600	800	2,500	20,000
Health inspectors and doctor's assistants	3,500	4,000	7,000	20,000

There are 65 medical colleges and schools in India graduating over 3,000 doctors a year. The length of the studies is 5 to 5 and a half years plus 2 years of training (theoretical courses) for the study of chemistry, physics and biology. The doctors receive a bachelors degree in medicine or surgery and only then have the right to practice. In addition to that, as has been pointed out previously, in India there are doctors of popular medicine (Aurveda and Unani). Their numbers are not known precisely, but it is assumed that there are approximately 400,000. They have the right to practice in all states.

There are 40 colleges training the Aurveda and Unani physicians. The secondary medical personnel receive training in special schools or hospitals. Graduating from state schools, they are obligated to work for five years in state institutions.

Pharmaceutics in India are insufficiently developed. Trade in drugs is carried on not only by pharmacies but also by other trade enterprises and street vendors. The majority of drugs are brought in from abroad; only 15% are manufactured locally and of those 4% from imported raw materials. Annually, 100 to 150 million rupees are expended for the import of drugs. The remedies of the native medicine, which are prescribed by the Aurveda and Unani doctors, are widely distributed. The Indian Ministry of Health manages the state pharmaceutical enterprises and the drug warehouses directly, watches over the standardization of drugs and controls the import of medications.

At the request of the government of India the Ministry of Health USSR provides technical assistance to the country in the area of the construction of medical industry enterprises.

MEDICAL SCIENCE

The Council on Medical Research guides the scientific-research work of the state institutes. Of these, the more famous are the All-Indian Institute of Hygiene and Public Health in Calcutta, the Institute of Malaria in Delhi, the Central Scientific Research Institute in Kazauli, the Cancer Institute in Bombay, the All-Union Psychiatric Institute in Bangalor, the Leprosy Institute in the state of Madras and the Institute of Bacteriology imeni V. M. Khavkin in Bombay. There are renowned scientists-physicians in India who have acquired world fame through their participation in the mighty movement in the defense of peace. Among them are the member of the Indian parliament, Major General and Professor Sahib Sing Sokhey, who for many years has occupied the post of Deputy Director General of the World Health Organization; Professor A. S. Ukil, a well-known physiologist, director of the medical institute in Calcutta and former president of the All-Indian Medical Association; the renowned surgeon, Professor A. B. Baliga, head of the National Council of Indian-Soviet Friendship and head of the large surgical hospital in Bombay.

PUBLIC HEALTH BUDGET

The allocations for public health and for environmental sanitation in India are increasing substantially. In the first five year plan (for 1951-1956) 1010 million rupees (5% of all expenditures) were allocated for this purpose; during the second five year plan (1956-1961) 2,740 million rupees (5.7% of all expenditures) were allocated.

INDONESIA

Indonesia occupies a large portion of the Malaya Archipelago in Southeast Asia: the Greater Sundas, the Moluccas and other islands. The territory of the country is 1,904,300 square kilometers. The population (according to 1961 data) is 95.7 million persons, primarily Indonesians and the overwhelming majority of them of the Islam faith.

In accordance with the 1945 constitution the head of the Indonesian republic is a president who is endowed with significant authority. He is the head of state, the commander-in-chief of the armed forces and the prime minister. The executive organ is the parliament. However, the government is responsible not to parliament but to the president. Parliament cannot replace the government, and the laws adopted by parliament must be approved by the president.

Until World War II the number of illiterates in Indonesia reached 90%. Illiteracy is being reduced as a result of measures adopted by the government. The development of education is being retarded by a tremendous shortage of instructors.

There are universities in Jakarta, Bandung, Surabaya, Djokjakarta and in Makassar.

Precise information on morbidity and mortality is not available as registration does not exist everywhere (Table 1).

As a result of the many years of rule by the Dutch colonizers in Indonesia, morbidity, primarily from contagious diseases, was very great. Malaria occupies first place, and even now over 30 million people suffer from it. Annually, approximately 100,000 to 120,000 people die from malaria. Since 1946, a systematic struggle against malaria has been carried out by dusting the areas where the insects are born with DDT, and since 1950 the dusting of homes has been initiated.

Table 1.

Natural population shifts

Year	Birth coefficient	General mortality coefficient	Infant mortality
	per 1,000 population		per 1,000 live births
1958	28.5	11.2	83.5
1959	29.5	11.9	84.1

Of the diseases for which registration is required, enteric fever, bacillary dysentery and small pox cause the greatest morbidity. In 1956 118 cases of plague of which 28 resulted in death were noted, in 1960 there were 5,156 cases of smallpox of which 997 were fatal and in 1958 there were 4,185 cases of dysentery of which 250 proved fatal (Table 2).

Tuberculosis was very prevalent following World War II. An investigation during 1951-1953 showed that from 5-7% of the population suffered from an open form of tuberculosis. An agreement was signed between WHO and the government of Indonesia to carry out mass inoculations against tuberculosis, which must be completed within 15 years (from 1953-1956 BCG inoculations were given to 2,733,000 inhabitants of the country).

Leprosy and trachoma are very prevalent. According to registration data there are approximately 70,000 lepers in the country (0.1% of the entire population of the country). Leprosy control measures envisage the expansion of the existing network of hospitals for lepers. Fifty percent of the population on the island of Java suffers from trachoma. Up to 250,000 blind people live in Indonesia.

Following World War II the morbidity rate for venereal diseases, in particular for syphilis, increased. In certain regions as (for instance, in the Surabaya region) 5 to 10% of the population suffers from this disease).

Throughout all of Indonesia all types of intestinal infections and children's diarrhea which is one of the important causes of infant mortality are widely distributed. On the average 15% of the population is infected by frambesia. It is believed that one half of the entire world's morbidity from frambesia is in Indonesia. The campaign to combat frambesia, begun in 1950, is to be completed in 1965.

Table 2.

Morbidity and mortality from contagious diseases
(in absolute figures)

Type of disease	1956	1957	1958	1959	1960	1961
Smallpox						
Morbidity	2,817	1,550	3,202	1,129	5,166	4,894
Mortality	2,078	320	767	478	997	--
Diphtheria						
Morbidity	1,001	1,198	1,425	--	--	--
Mortality	168	260	248	--	--	--
Enteric fever						
Morbidity	2,143	5,186	9,493	--	--	7,867 ¹
Mortality	98	384	743	--	--	--
Paratyphoid						
Morbidity	--	--	1,059	--	--	--
Mortality	--	--	19	--	--	--
Plague						
Morbidity	113	17	--	14	5	--
Mortality	28	7	--	51	4	--
Dysentery						
Morbidity	3,462	3,831	4,185	--	--	--
Mortality	176	243	250	--	--	--
Acute polio						
Morbidity	177,7 ²	96	112	--	--	165
Mortality	5,7	32	4	--	--	--

¹Enteric fever and paratyphoid

²For 1954-1956

Among the other diseases those found most frequently are hydrophobia, tetanu neonatorum, scabies, tropical dermatites and helmenthic diseases. In many regions of the island of Java 50% of the population is contaminated by helminths and on the island of Sulawesi it reaches 80%.

HEALTH CONDITIONS

The causes for the large mortality and morbidity rates from contagious and parasitic diseases are hidden in the poor health conditions, the lack of high quality sources of water, the poor cleaning of the populated areas and so forth. Sixty percent of Indonesia's population uses poor quality water; sewage systems exist only in certain regional centers and major cities. Only 20% of the country's population uses lavatories. The level of sanitation standards among the population, and primarily in the rural areas, is not high. The systematic shortage in food, from which almost all the workers in Indonesia suffer, poses a large problem. The daily ration, on the average, is between 1,700 and 2,000 calories (as against 3,000 to 3,500 calories, the norm). The food is extremely low in animal proteins.

Finally, a tremendous difficulty is presented by the housing problem. Twelve million houses in the cities and in the rural areas are not up to the health standards. There is a need to construct at least 350,000 new houses. The solution of all of these problems is included in the plans of the Indonesian government.

A special place in this connection is occupied by the organization of health education which is administered by a special department in the Ministry of Health. The ministry has set before all workers in public health the task of active participation in health education. As a result of the circumstances, health education is being presented in different manners for the literate and illiterate and for the urban and rural populations.

ORGANIZATION OF PUBLIC HEALTH

The Indonesian Ministry of Public Health established in 1950, which is the central controlling agency, manages the public health service. The ministry has 14 departments: administrative, hospital service, health education, department for contagious diseases control and for quarantine, department for plague control, department for leprosy control, sanitation, pharmacy, maternal and child welfare, department for frambesia control, public health services, medical training, international relations and rural public health.

All work in public health locally is subordinated to the provincial departments of public health, and the municipalities and rural administrative agencies take part in the organization of public health. Centralization is a characteristic feature of the Indonesian public health service.

Work in the area of maternal and child welfare is subordinated to the provincial public health departments throughout the country.

In the villages work of maternal and child welfare is carried on by a patronage nurse and by a midwife's assistant. Their work is coordinated by the nurse-midwife who is located in the administrative center of the region and by the nurse-midwife of the province. In addition to that, midwives-inspectors who control all of the work on maternal and child welfare in the province work directly with the province department.

Ninety-five percent of the births take place at home, in addition to which 90% of the births in the rural areas are carried out with the help of midwives (dukun) who do not have medical training.

Naturally the level of maternal and child welfare in Indonesia is still low; there is a shortage of doctors, nurses, patronage workers and midwives.

Maternal mortality is high in comparison with other countries. In 1959 on the island of Java it was 0.9 to 2.3 per 1,000 births. Infant mortality is also substantial. According to Indonesian doctors, on the average the mortality of children up to age 5 comprises 50% of the total mortality in Indonesia.

Medical service to workers is extremely poor despite an increase in the number of private and state owned industrial enterprises. Until World War II some medical service to workers was organized only at private individual enterprises insofar as employers were interested in raising the work ability and consequently in increasing production volume. According to the Ministry of Public Health, the need arose for the creation of an agency to be occupied with the problems of industrial public health along with a special inspection for labor welfare under the Ministry of Labor. The organization of an institute of industrial hygiene which must include administrative, technical, chemical, health and hygiene, treatment and preventive medicine and statistical departments is proposed. The institute will consult the employers and trade-unions, will organize courses and training centers on labor hygiene, will carry out scientific research work in the area of occupational diseases and will establish polyclinics and dispensaries for serving the workers. An administrative council will be established under the institute of representatives from the Ministries of Public Health, Labor, Economics and Social Matters, as well as a consultative council of representatives of workers and employers.

Rural inhabitants comprise over 70% of the entire population of Indonesia; therefore, the organization of public health in rural regions is a primary task. At present the rural regions are not fully assured of medical assistance. The overwhelming majority of physicians are concentrated in the cities. In the rural areas, however, there are several hundreds of thousands of inhabitants per doctor.

The development of rural public health is envisaged in the so-called Bandung Plan. According to the plan it is proposed to unite the preventive medicine and treatment work under a single management. The primary unit in rural public health must be the public health station "desa," that is, the villages which have a certain independence in a political, social and economic respect. The "desa" inhabitants number from 3,000 to 5,000 persons. The "desa" are grouped into regions with a population from 23,000 to 30,000 persons. According to the plan every village public health station must have on its staff a specialist in hygiene, responsible for health education, the health conditions of the village and the collection of demographic data: a patronage nurse for maternal and child welfare service, a midwife's assistant and a nurse's assistant who provides help prior to the physician.

One of the most important tasks facing Indonesian public health is the expansion and improvement of hospital services. There are three types of hospitals in the country -- state, private and those rented by the government and regular private hospitals. These three categories include both general and specialized hospitals.

In 1960 there were 478 general, state hospitals in the country with 39,701 beds (0.45 beds per 1,000 population), 130 general, private hospitals with 14,958 beds and 27 psychiatric hospitals with 7,371 beds. In addition to that there are 18 tuberculosis hospitals with 1,707 beds, 59 hospitals for lepers with 5,779 beds and 7 other hospitals with 985 beds in the country. The total number of beds was 73,557 (0.84 beds per 1,000 population).

There are approximately 7,000 beds in the military hospitals. The government is planning the construction of new hospitals and the expansion and modernization of old hospitals. A great obstacle in the development of hospital services is the acutely felt shortage of medical personnel. Outpatient care is in need of substantial expansion.

There are 3,153 dispensaries in the country, of which 245 are privately owned. In 1960 there were 10 clinics for outpatient service to mental patients. The overwhelming majority of outpatient institutions are concentrated in the cities.

Basically, outpatient help is provided by private physicians at a high cost and is not accessible to workers.

A shortage of medical personnel is particularly acute in Indonesia. There was a total of 1,938 doctors, 237 dentists (in government service), 21,552 nurses (this also includes junior nurses) in 1960 in the country.

Doctors in Indonesia are trained at five medical schools at the universities in Jakarta, Makassar, Medan and Surabaya, as well as the independent medical college in Bukittinggi. On the average all of

these institutions graduate 200 physicians annually. There are seven secondary medical schools, three secondary dental schools and 27 nursing schools. Courses for the training of midwives and assistants to midwives and courses for the training of nurses and patronage workers have been organized in recent years in various regions of the country.

The government compensates for the shortage of doctors by inviting doctors from other countries (in particular from Australia and New Zealand) and offering them favorable terms. In 1958 there were 45,000 inhabitants per doctor in Indonesia. It is envisaged that the number of doctors will have been doubled by the end of the eight year plan.

In 1960 out of a budget of 40,208 million rupees 5% was spent for public health, that is, 22.5 rupees per inhabitant.

Assistance to Indonesia in the sphere of public health was provided by organizations such as the UN, WHO and UNICEF. In 1961 the total allocations by these organizations for public health needs amounted to 782,237 dollars, of these WHO provided 58,087 dollars, the UN Technical Assistance Committee provided 134,150 dollars and UNICEF provided 594,000 dollars, which comes to 0.87 cents per person.

The Soviet Union provides great assistance to Indonesia.

In addition to the initial credits the USSR in 1960 presented to Indonesia new credits amounting to 250 million dollars. Industrial enterprises, which are the basis for the creation of a national industry and which will help to achieve economic independence for the country, are being constructed on Soviet credit. The Soviet Union constructed a 200 bed hospital and polyclinic in Jakarta as a gift to the Republic of Indonesia.

The agreement on cultural cooperation between the USSR and Indonesia (1960) envisages the exchange of experience and achievements in the areas of science, higher education, culture and public health.

JORDAN

Jordan is located in western Asia. It is a constitutional monarchy. The head of state is a king. Legislative power lies in the hands of the national assembly which consists of two houses, the house of representatives and the senate. Laws passed by the national assembly do not come into force until confirmed by the king. The capital is the city of Amman (approximately 200,000 inhabitants).

Jordan has a territory of 96,600 square kilometers. It has a population of approximately 2 million. The average population density is more than 20 persons per square kilometer. However, the population is unevenly distributed across the country. The majority of the inhabitants (approximately 60%) are concentrated in the western regions of the country, occupying approximately 5,500 square kilometers. Only 40% of the population lives on the remaining territory (91,000 square kilometers). The inequality in population distribution is explained by the very small percentage of developed land (not more than 10% of the entire territory).

The majority of the inhabitants of Jordan are Arabs. Approximately 590,000 persons are refugees from Israel.

The table shows official demographic indices for recent years.

Demographic indices	1954	1955	1956	1957	1958	1969
Births ¹	38.4	40.7	37.6	39.4	44.1	38.4
Deaths ¹	10.4	9.3	8.4	8.5	7.4	7.3
Natural growth ¹	28.0	31.4	29.2	30.9	36.7	31.1
Infant mortality ²	89.0	72.8	73.6	69.3	60.6	63.1
Maternal mortality ²	--	--	--	2.6	5.8	6.9

¹per 1,000 population

²per 1,000 live births

Since the demographic statistics for the country are very poorly organized, the data provided, in particular on mortality, are extremely understated. In reality, Jordan, as an economically backward country with an extremely low standard of living, experiencing a shortage in medical personnel, has a very high general and infant mortality. Maternal mortality is also very high.

The extremely low standard of living, the exhausting work and the unhealthy living promote the great spread of contagious and parasitic diseases, in particular malaria, dysentery, tuberculosis and trachoma.

Registration of diseases is far from complete. Outbreaks of smallpox have been noted. In 1950 134 cases of this disease were registered.

In the malaria regions (according to WHO data) 1,186,000 inhabitants, that is approximately 70% of the population, live.

In many villages over 50% of the inhabitants have been struck with trachoma. This disease is particularly prevalent among the children. Every fourth child of school age has trachoma. According to WHO data for 1958 109,339 cases of trachoma were registered.

In 1960, 1,198 cases of tuberculosis were registered.

Dysentery morbidity in 1960, according to registration data, amounted to 1,297 cases.

Also registered have been enteric fever (in 1960 1,308 cases), dyptheria (in 1960 150 cases), whooping cough (in 1960 415 cases) and other contagious diseases.

Congenital syphilis and other venereal diseases are very prevalent among the nomadic tribes of the south.

Infectious disease control is being carried out extremely poorly and is limited only to preventive inoculations provided through the assistance of WHO and in very insignificant amounts. During 1960 only 71,618 primary vaccinations against smallpox and 91,774 combined inoculations against dyptheria, whooping cough and tetanus were provided.

In recent years with the assistance of WHO two anti-tuberculosis centers and 29 malaria control centers have been established in Jordan. The work of the anti-malaria centers is basically limited to supervision of the treatment of dwellings with insecticide. By 1958 4,509 homes were treated with DDT.

The managing public health agency is the Ministry of Public Health headed by a minister. The ministry has departments of therapy,

surgery, ophthalmology, otolaryngology, malaria, tuberculosis, laboratory service, blood transfusion service, mental hygiene and maternal and child welfare.

Work on public health in the regions is headed by senior medical inspectors (head doctors). The staff of the public health agencies is small.

Maternal and child welfare is still in the initial stages. In recent years 29 maternal and child welfare centers which in essence are consultation institutions were opened with the assistance of WHO. The majority of births occur without medical assistance. In 1960 only 1,748 deliveries were made by a physician or a graduate midwife.

There are no medical service institutions for workers.

Medical service for the rural population (the basic population of the country) is very poor. Unhealthy conditions rule in the villages.

Hospitals and doctors are primarily concentrated in the principal cities (Amman, Jerusalem and others) and are only available to the more wealthy strata of the city population. In 1960 there were only 2,978 hospital beds in the country (1.73 beds per 1,000 population).

These institutions include 29 general hospitals with 1,876 beds, 4 tuberculosis sanatoria with 298 beds and one psychiatric hospital with 307 beds.

In 1960 there were 292 doctors in the country (one doctor per 5,900 inhabitants), 54 dentists, 205 graduate nurses, 124 midwives and 125 pharmacists.

There are no schools for physicians in the country. There are three nursing schools (a four year training course and one school for training midwives (a two year course).

The public health budget is extremely miserly. Government spending for public health amounts to less than 1% of the budget allocation, while the military allocations exceed 50% of the budget.

UN and WHO assistance to Jordanian public health organizations (primarily in measures for combating tuberculosis and malaria and for organizing maternal and child welfare services, etc.) in 1961 amounted to 127,371 US dollars (0.07 US dollars per inhabitant).

IRAQ

Iraq is a republic located in western Asia. Its territory is 444,000 square kilometers, twice as large as England. In the north Iraq borders on Turkey, in the east on Iran, in the west on Syria and Jordan and in the south on Saudi Arabia and Kuwait.

The so-called neutral zone lies at the junction between Iraq, Saudi Arabia and Kuwait.

According to 1960 data, the population of Iraq was 7,085,000. The average population density is 15.5 persons per square kilometer. The capital of Iraq is Baghdad, the population of which with its suburbs is 1,085,000.

Arabs comprise approximately 80% of the population of Iraq; the Kurds (16%) live in the northern regions. The remainder of the population are Turkmen, Iranian, Turks, Assyrians and others. Approximately 300,000 persons lead a nomadic existence.

DEMOGRAPHY

Registration of the population movements in Iraq is incomplete; therefore, demographic data do not reflect the true situation.

The birth rate in Iraq, according to data from statistical agencies, beginning in the '50's is increasing and is quite high (in 1957 it was 37.8%). As far as general and infant mortality are concerned, they are obviously understated, and the available data apparently refer only to Baghdad (Table 1). The data on infant mortality, according to which it is 350 per 1,000 live births, is more reliable. Such a high infant mortality is explained by the low standard of living and by a shortage of medical help.

Average life expectancy is 28 to 30 years.

Table 1.

Population shifts

Year	Births	General mortality	Natural growth	Infant mortality per 1,000 live births
	per 1,000 population			
1948	26.0	--	--	--
1949	28.6	--	--	97.6
1950	27.9	4.1	23.8	97.3
1951	25.8	3.8	22.0	89.0
1952	29.7	3.6	26.1	56.0
1954	13.0	5.9	7.1	44.0
1955	15.5	5.8	9.7	34.7
1956	16.5	5.0	11.5	28.5
1957	37.8	--	--	--
1958	11.8	4.1	--	39.4
1959	24.6	--	--	17.8
1961	18.8	4.0	14.8	27.2

MORBIDITY AND MORTALITY

Iraq is a country with a high morbidity rate; contagious and parasitic diseases are particularly widespread. The poor diet is a general cause for the morbidity rate.

Doctor Gunel, a member of the UN Food and Agricultural Organization, believes that 80% of the population suffers from emaciation. Diseases linked with mineral deficiency (calcium and phosphorus), with avitaminosis and with hypovitaminosis and others have been observed. Smallpox is one of the most dangerous diseases in Iraq. In 1956 2,173 cases of smallpox were registered (of these 291 were fatal); in 1957 there were 1,924 cases (of these 42 were fatal). In 1959 23 new cases of smallpox were registered.

Iraq is also an endemic breeding ground for plague. In 1945 a serious outbreak of the plague was noted in the region of Omara, and since that period this region continues to be threatened by the disease. In 1948 the plague again appeared in the same region and in this case 1,700 cases were registered, of which many were fatal.

Of the acute contagious diseases registered one often finds

enteric fever and paratyphoid morbidity (approximately 2,000 cases a year)¹, diphtheria (from 1,000 to 1,200 cases per year)¹ and dysentery (up to 63,000 cases per year).

It is necessary to point out that all morbidity data in Iraq are incomplete since there is a shortage of medical personnel and of hospitals for their registration. Basically, registration is maintained only in the large cities. Of the parasitic diseases malaria is very prevalent, and from 1947 to 1948, even according to official data, there were 600,000 to 700,000 cases a year. Later on malaria morbidity was somewhat reduced. In 1957 more than 107,000 cases were registered, in 1958 there were 27,909 cases and in 1959 there were 11,219 new cases of malaria (Table 2).

There are six so-called malarial zones in Iraq, of which the most dangerous are the regions of the Upper Tigris and the Dujaila Valley. Malaria and gastrointestinal diseases are the chief cause of death.

Public health agencies in Iraq until 1958 did not have at their disposal sufficient means and opportunities for the struggle against the disease. Certain measures were carried out by the directorate for preventive medicine together with WHO and UNICEF agencies on malaria control.

One third of the population was suffering from ancylostomiasis in Iraq in 1926, according to data from the Baghdad hospital. In 1956 24,866 cases of this disease were recorded. Official registration data concerning venereal diseases showed up to 1954 a relatively high morbidity (in 1948 there were 14,584 cases of syphilis, in 1950 over 10,000 cases and in 1954 7,600 cases. In 1959 136 new cases of syphilis were registered.

Trachoma morbidity is very high. According to official data in 1956 there were 431,245 cases and in 1958 (according to official WHO data) 290,455 cases of trachoma. In connection with this it is natural that there is a large number of blind persons in the country. Twenty-five percent of the population has been struck with eye diseases. The reader will find more detailed data in table 2, reflecting morbidity and mortality on the diseases for which there is obligatory registration. Tuberculosis morbidity is not covered completely by registration. According to official data for 1954-1956 there were approximately 24,000 new cases of tuberculosis registered. Deaths from tuberculosis, according to WHO data, come to 200 cases per 100,000 population. Annually, over 10,000 persons suffering from tuberculosis are treated in the state hospitals in Iraq.

ORGANIZATION OF PUBLIC HEALTH

Although state public health agencies existed prior to the

Table 2.

Morbidity and Mortality for Diseases under Obligatory Registration

Disease	1952		1953		1954		1955		1956		1957		1958		1959	
	per		per		per		per		per		per		per		per	
	1	100 000	1	100 000	1	100 000	1	100 000	1	100 000	1	100 000	1	100 000	1	100 000
Leprosy																
2	77	—	86	—	96	—	106	—	107	—	—	—	225	—	83	1,2
3	—	—	—	—	—	—	7	—	3	—	—	—	—	—	2	0,03
Malaria																
2	409 075	—	451 133	3 427	360 623	7 640	320 926	6 171,7	217 834	3331,8	107 204	—	27 909	—	11 219	166,7
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bilharziosis																
2	3 672	699	29 249	595	37 784	766	42 495	—	54 669	—	—	—	—	—	56 603	840,9
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery ⁴																
2	—	—	—	—	25 082	—	63 716	—	41 202	—	—	—	—	—	4 850	72,1
3	—	—	—	—	7	—	24	—	11	—	—	—	—	—	4	—
Smallpox																
2	—	3,2	251	—	27	5,5	—	134,8	2 173	448,6	1 924	294,3	6	—	23	0,3
3	—	—	37	—	—	—	—	1,0	291	58,0	42	—	2	—	—	—
Trachoma																
2	—	12 667	—	9 975	481 272	9726,6	406 514	7 817,6	431 245	6 596,0	290 455	—	290 455	—	332 697	4942,8
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

¹ Absolute figures² Morbidity³ Mortality⁴ All forms⁵ Per million population

1958 revolution in Iraq, they did not significantly influence the struggle against the widely spread contagious diseases. Allocations for public health were insignificant and the government of Nuri es-Said paid little attention to the problem of the health of the population.

The civil public health agency -- the general public health directorate -- was initially established in 1920. It was included in the system of the Ministry of Public Health and Education. Until 1920 only a military public health secretariat existed, primarily to serve the British occupation forces. Following the reorganization in 1946, the general public health directorate was included in the Ministry of Social Affairs. At the present time in Iraq there is a Ministry of Public Health consisting of four general directors: public health, medical assistance, treatment and socialized medicine, and health inspection.

In the provinces (liva), regions (kada) and rayons (nakhiya) of the country local public health agencies that are subordinated to the Ministry of Public Health and that are guided by public health inspectors exist. The primary task of the inspectors is control over the activities of hospitals, dispensaries, medical personnel, etc.

MATERNAL AND CHILD WELFARE

There are few maternity and infant hospitals in Iraq. The number of deliveries in hospitals or under medical care is extremely low. Although, according to the law, the use of child labor is forbidden, in reality, child labor is widely used under the guise of apprenticeship. Pregnant women, according to the law, have the right to a five week maternity leave, but, as a rule, the employers discharge them. Certain measures are being adopted toward improving medical service to mothers and children. In 1960 30 infant and maternal consultation clinics were established. Pediatric, gynecology and midwife sections are being organized in the hospitals under construction.

ORGANIZATION OF MEDICAL ASSISTANCE TO THE POPULATION

A significant number of the hospitals belonged to foreigners, private individuals and foreign missions. The basic number of physicians (60%) and the majority of medical institutions are concentrated in Baghdad where only 10% of the population lives. Therefore, actually a large part of the population is deprived of qualified medical assistance. The rural population finds itself in an exclusively unfavorable position since there are almost no medical stations in the villages. The animal husbandry regions of the country are particularly poor in this relation.

In 1960 there were 117 hospitals, of which there were

85 general hospitals with 6,590 beds, 4 contagious diseases hospitals with 242 beds, 8 tuberculosis hospitals with 2,107 beds, 16 maternity hospitals with 688 beds, one psychiatric hospital with 438 beds, one hospital for lepers with 306 beds and 4 other institutions with 200 beds. This is a total of 10,571 beds (1.5 beds per 1,000 population).

Outpatient assistance in Iraq is carried on by doctors in private practice, who, as has been pointed out above, primarily live in the large cities.

In connection with the construction of hospitals outpatient service will improve since the establishment of polyclinics is envisaged in every hospital.

MEDICAL PERSONNEL

In Iraq the supply of medical personnel to the population is insufficient. According to data from statistical agencies, in 1959 there were 1,245 physicians, that is 4,500 inhabitants per physician. There were 137 dentists, 430 pharmacists, 1,640 nurses and 562 midwives.

The training of physicians, pharmacists and secondary medical personnel is being carried out at the medical school of the university in Baghdad. The school includes the college of medicine (established in 1927), where 582 students are being trained, the dental school and the school of chemistry and pharmacology, as well as two schools for nurses and midwives and for public health administrators. The course for physicians in the medical college lasts for six years. The courses are given in English. According to WHO data, all professors in the theoretical chairs of the medical school were recruited from among foreigners and were primarily English, until 1958. During 1955-1956 there were 636 students in the school of medicine, and 78 doctors were graduated annually. There were 175 students in the college of chemistry and pharmacology and 32 graduate annually.

Following the 1958 revolution, the Ministry of Public Health of the Republic of Iraq adopted a series of measures for the improvement of the qualifications of physicians and of secondary medical personnel and for increasing their number. For this purpose colleges of medicine and schools for the training of secondary medical personnel are being constructed in Mosul and at Basra. The Iraqi Republic is carrying out a large project in the training of nurses. In the various livas (provinces) of the country, schools and courses, training over 1,000 persons, are being provided. Outstanding specialists from abroad are being invited to Iraq to train medical personnel. In addition to that many doctors have been invited to the country to work in the existing hospitals. In order to improve their qualifications certain doctors from Iraq are traveling abroad including visits to the Soviet Union.

HEALTH CONDITIONS

The health conditions in the country are unsatisfactory. The living conditions in the majority of the populated areas are unhealthy. According to official statistics, in 1957 of 741,000 homes 304,000 were mud huts, 195,000 were built of bamboo and 15,000 were in the form of tents. As a result of the niggardly position of the peasants, a mass movement of the peasants (fellahin) to the cities (Baghdad, Basra, Mosul) is observed. Not having any dwellings, they covered entire blocks with so-called sarifs, that is mud huts without windows and hearths. These settlements became a breeding ground for epidemics.

Professor Michael Critchley of the college of medicine in Baghdad, noting the condition of the migrants in the region of Assima, wrote: "This region is a contaminated wasteland where drains, into which the filthy water from the slaughterhouses empties, are located. People and animals often live together in the same room, and clean drinking water is unavailable in the region."

The water supply is unsatisfactory. The majority of the population (over 50%) uses water from open wells which are the breeding ground for gastrointestinal and parasitic diseases. Sewage disposal is poorly organized, and sewage systems are not available everywhere, even in the large cities.

Following the revolution, the new government of Iraq adopted a series of measures aimed at improving health conditions.

In accordance with the outlined plan, along with the construction of industrial enterprises the construction of dwellings for workers is being carried out. Measures have been adopted for the construction of new villages. The first of these villages -- Latifia -- was triumphantly opened on 14 July 1959, that is on the first anniversary of the revolution.

BUDGET

From the budget for 1960, amounting to 116,151,918 dinars, 5.6% or 15,787,129 dinars were allocated for public health.

Iraq receives aid from international organizations (Table 3). During 1962 the country received 357,866 dollars.

The Soviet Union has also provided friendly assistance to Iraq. Thus, in accordance with a treaty between the USSR and Iraq Soviet specialists have provided mass smallpox vaccinations. According

to data from public health agencies 75% of the population in Iraq was vaccinated.

Table 3.

Allocation	From regular WHO budget	From the UN Technical Assistance Program	Other non-budget allocations
For malaria control	18,286	--	185,000
For bilharziosis control	--	34,956	--
For the control of virus diseases	32,114	--	4,500
For the organization of demographic statistics	5,000	--	--
For nursing	5,893	--	3,000
For maternal and child welfare	--	--	13,600
For training of medical personnel	8,000	40,517	7,000
Total	69,293	75,473	213,100

The Soviet government has given the government of Iraq, as a gift, 15 million doses of smallpox vaccine, 15,000 liters of denatured alcohol, 2,000 kilo of cotton, various pieces of laboratory equipment and other medicines. In addition to that Soviet specialists have aided in the training of local specialists for smallpox vaccination.

IRAN

Iran is a constitutional monarchy with a shah and a bicameral parliament: a majlis and a senate. In reality the shah has unlimited power. He relies on feudal lords, a part of the bourgeoisie, the military and Anglo-American monopolies. The territory of the country is 1,630,000 square kilometers. The population in 1961 was 20.3 million, of whom 1,513,164 lived in the capital, Teheran, during 1956. The rural population numbers 13,737,703, and the urban population 5,207,118. Population density is 12.4 per square kilometer. For administrative purposes the country is divided into 10 oostans (provinces) lead by ustandars. Each of the provinces is subdivided into shakhrestans (districts), and they in turn into bakhshi (small rural districts) and dehistans. The primary or basic cell is the village or a group of villages.

Iran is an agrarian country. Of the industrial branches, the oil industry is developed. Approximately 80% of the national income goes for agriculture. The economic backwardness of Iran is a result of the dependence of the country on foreign monopolistic capital. The primitive production equipment, the backward agro-technology and low harvest are a distinctive feature of agricultural production in Iran. This is caused by the fact that large landed estates, exploiting the cheap labor of the landless batraks exist in Iran. Sixty percent of the peasants do not have land and are forced to rent it from the landowners, who own 70% of all arable land (they comprise only 1% of all landowners). For the rent of the land and for the water the peasant who rents gives up four fifths of the crop. The living standard of the basic mass of the population is very low. Workers in Iran are subjected to cruel exploitation, receiving pennies for their labor. There are many people out of work in Iran. In the cities and rural regions their number reaches 600,000 persons. In Teheran alone during 1955 there were 200,000 people out of work. Prices for basic necessities in Iran are constantly increasing at the same time that wages remain at almost the same level. The growth of non-productive expenditures by the government and the inflation during 1959-1960 aggravated the difficult position of the workers. Living expenses increased substantially in 1959 (Table 1).

Table 1.

Cost of living index (1936-1937 = 100)

Year	General index	Food	Rent	Heating and lighting	Clothing	Miscellaneous
1958/59	1,378	1,168	3,630	635	973	1,220
1959/60	1,484	1,322	3,591	761	1,005	1,228

As a result of a sharp increase in the cost of living there was a strike by the workers.

The everyday living conditions for the workers in Iran are extremely difficult. The workers, as a rule, live under conditions of tremendous congestion in barracks and mud huts. Good quality drinking water in the workers' settlements is often not available.

The Iranian peasants who comprise the basic mass of the population live under particularly difficult conditions; hunger and poverty are their constant companion.

Table 2.

Demographic indices (per 1,000 population)

Year	Birth coefficient	Mortality coefficient
1957	37.4	17.5
1958	42.1	18.5
1960	25.1	--
1961	24.2	18.0

Demographic indices for Iran are not reliable since health statistics suffer from major shortcomings and registration is incomplete. If data on births come close to the truth, then the mortality data, which evidences in particular a very high infant mortality coefficient, are extremely unreliable (Table 2).

The infant mortality coefficient across the country is not known. The results of investigations carried out in various regions are presented in Table 3.

Table 3.

Infant mortality indices in certain regions of the country

Area investigated	Number of live births	Infant mortality in first year per 1,000 live births
Village near Teheran	4,645	217
Village near Shiraz	4,152	158
Village near Marvdashet	2,806	146
Maternal and child welfare clinic in Shiraz	2,056	149

MORBIDITY AND MORTALITY

Iran is an endemic breeding ground for particularly dangerous infectious diseases. During the past 100 years outbreaks of plague and cholera arose every four to six years. During 1958 12 cases of plague were registered of which 6 were fatal, and in 1961 there were 7 cases. As far as smallpox is concerned, in 1956 1,531 cases of this disease and in 1958 318 cases, of which 10 were fatal, were registered. In 1961 123 cases of smallpox were registered.

Epidemics of enteric fever, dysentery and infant contagious diseases are frequent. In 1961 16,144 cases of enteric fever, 33,563 cases of measles, 3,393 cases of diphtheria, 1,207 cases of scarlet fever, 19,447 cases of whooping cough and 236 cases of polio were registered. Malaria and leishmaniasis are very prevalent. Trachoma which leads to blindness is a serious problem. Of 19 million inhabitants, up to 300,000 blind people (almost 16 blind per 1,000 population) have been counted. According to accounts by the Iranian Minister of Public Health, in 1957 in Kiras province of those examined 59.8% of the patients suffered from trachoma. In 1960 57,534 persons suffered from trachoma (279.7 per 100,000 population). A serious problem is presented by social diseases -- tuberculosis and venereal diseases. Tuberculosis morbidity is not registered. However, individual data show its constant increase. During

serological examination for syphilis, made on pregnant women in Teheran hospitals during 1956, a positive reaction was noted among 6.8%. According to Iranian sources 20-25% of the population in the major cities suffers from this.

There were 107,204 cases of malaria according to WHO data in Iran in 1951. In 1960 4,381 new cases of malaria were recorded.

Data on contagious diseases in Iran during 1954-1958 from provincial public health sections and WHO data for 1960-1961 are presented in Table 4 (in absolute figures).

Table 4.

Disease	1954	1955	1956	1958	1960	1961
Enteric fever	4,231	5,121	4,889	9,303 ¹	17,952	--
Measles	8,952	9,651	9,412	22,959	--	33,563
Dysentery	9,199	12,432	9,643	23,140	43,366	--
Smallpox	98	545	1,531	417	--	--
Diphtheria	2,107	2,317	2,389	4,016 ²	--	--
Whooping cough	3,502	7,346	9,069	16,039	--	19,447

¹ Data for 4-5 weeks

² Data deliberately incomplete

We show the morbidity coefficients (per 100,000 population) in 1960:

Trachoma.....	278.8
Dysentery.....	210.2
Measles.....	171.7
Whooping cough.....	96.1
Enteric fever.....	78.0
Tuberculosis (all forms).....	48.3

Opium smoking is very harmful to the population. Over 1.5 million persons age 15 to 40 suffer from narcomania. Approximately 100,000 persons die annually from smoking opium.

ORGANIZATION OF PUBLIC HEALTH

The Ministry of Public Health was organized in 1941. Initially its function was to supervise medical practice. In 1948, in connection with the development of a seven-year plan, a department of preventive medicine was organized. In 1953 a cooperative organization for public health under the Ministry of Public Health, which worked jointly with the public health unit of the American operational mission sent to Iran, was established.

The Ministry of Public Health includes the High Inspection Council composed of 11 medical and 2 administrative inspectors. The department of preventive medicine headed by a director general is responsible for the work of hospitals and dispensaries, coordinates the work of voluntary societies occupied with public health, and controls the work of doctors.

The primary medical unit is a houzeh which is calculated for 50,000 to 150,000 population and serves a great bakhshi or a small shakrestan. The chief houzeh physician is either a physician with a degree or a bekhdar who is a health inspector who has taken a limited training course. He normally spends part of a working day providing treatment in 10 bed hospitals and in dispensaries and in carrying out administrative work in the area of public health for his region. Sanitary stations, that are calculated to serve 25,000 population each are under the administration of the houzeh. The staff of the health station includes a bekhdar and two male nurses; medical mobile teams to serve nomads are organized.

Numerous expeditions of Soviet specialists have travelled to Iran for epidemic control. In 1943 a hospital of the Society of the Red Cross of the USSR was opened in Teheran with first class equipment. Soviet physicians with various specialties work in the hospital. Branches of the hospital have been opened in a number of cities. The medical institutions of the Soviet Red Cross not only provide free medical assistance to the population but also are a school for training and for improving the qualifications of Iranian doctors in various specialties.

The World Health Organization and other international organizations provide certain assistance to Iran in the area of public health. In 1962 this assistance in the area of public health amounted to 1,003,519 dollars of which 75,842 dollars was from the regular budget and 76,667 dollars was from the UN Technical Assistance Program and other non-budget funds totaled 851,000 dollars (a total of 5 cents per inhabitant).

The assistance provided by WHO to Iran is expressed in the sending of counselors, consultants, instructors and teachers; in the sending of medical literature; etc. Technical and material assistance is provided by the UN and UNICEF. The latter sends equipment, medicine, chemicals

and food (dry milk) to Iran. Nevertheless, the volume of this assistance is far from sufficient.

MATERNAL AND CHILD WELFARE

Although in 1936 laws were adopted according to which women working in enterprises were supposed to have short leaves during pregnancy and work by those under age is limited, these decrees are not being observed in practice. Maternal and child labor is widely used at Iranian enterprises. Women receive two-two and a half times less pay than men for the same type of work. At many of the rug making factories in Iran 75% of the work force is composed of children age 4 to 10. Many of them, as students, do not receive any wages. All that they receive is from 10 to 15 dates and a piece of bread a day.

In an overwhelming majority of cases in Iran births take place at home under unhealthy conditions. Medical assistance to women who are about to give birth is nonexistent for the majority of the population. Deliveries are made by untrained midwives who do not observe elementary rules of hygiene. Therefore, infant mortality in Iran reaches tremendous proportions, 217 per 1,000 live births.

MEDICAL SERVICE TO WORKERS

In essence there is no social insurance in the country and labor protection at enterprises is lacking. The work day, as a rule, lasts 11.5 hours and sometimes reaches 13-14 hours although its length is formally limited to 8 hours.

Industrial health inspection does not exist in Iran. Even major enterprises do not have medical and health service stations for the workers.

As a result of the exhausting work under difficult conditions various serious diseases are prevalent among workers in Iran. This is how the Iranian newspaper Ettelaat characterizes the working and living conditions of the workers in industry: "Here no struggle is being carried on against occupational diseases, crippling, burns and wounds on arms and legs that result from a backward and primitive technology. Nothing can be said about medical assistance. In a majority of cases the workers are forced to treat their crippled comrades, using cobwebs instead of cotton and the ashes from cigarettes instead of medicine, and as a result of this kind of treatment young workers very frequently lose their fingers and hands. The workers who are injured are forced to continue to work or are deprived of their earnings."

SANITATION AND HYGIENE

City regions, where poor strata of the population live, are in an unhealthy state. Particularly bad health conditions exist in public areas: markets, barns housing caravans, dining halls, tearooms, etc. In Iran houses are normally constructed of unfired brick, and the walls are not treated to prevent the absorption of water seepage from the soil, and, therefore, the lower floors and basements are damp. The houses of the poor, the hovels and the shanties, are built of clay or adobe and less frequently of rock mixed with clay. The floors are earthen. The walls are not waterproof and fall apart very rapidly.

The lack of running water is a scourge to the population. The problem of drinking water is particularly complicated in the south (along the coast of the Persian Gulf). Here rain water which is collected in special reservoirs is used for drinking. The basic sources of water in Iran are the irrigation ditches located above and below ground. Only of late have water mains been constructed in the wealthy sections of Teheran. The remainder of the population gets drinking water from the irrigation ditches. The irrigation ditches, particularly in the city suburbs, also serve as an area for refuse and trash. Nevertheless, even in Teheran it is possible to see a mass of people simultaneously drinking water from the irrigation ditches and bathing and washing their feet.

In Iran, as a rule, water analysis is not carried out. Tests on samples of irrigation water, conducted in the laboratory of the Soviet Red Cross hospital in Teheran, showed extreme contamination by pathogenic and nonpathogenic flora.

Health inspection of products for all practical purposes does not exist in Iran. Meat is sold at the markets without preliminary veterinary examination. Vegetables, fruits and garden greens do not come under any health examination. Dairy products are contaminated and serve as a source for contaminating the population with gastrointestinal diseases and with brucellosis.

HOSPITALS

Only some hospitals in Iran are completely under the control of the state public health agencies.

In addition to these there are hospitals administered by the University of Teheran, various ministries, state institutions and national charitable organizations (the Society of the Red Lion and Sun). There are also foreign and private hospitals.

According to official data for 1959, there were 360 hospitals with 19,952 beds in Iran. Among these were 347 general hospitals with 14,258 beds, 9 hospitals for tuberculosis patients with 3,309 beds, 11 psychiatric hospitals with 1,630 beds and 2 hospitals for lepers with 755 beds (0.99 beds per 1,000 population).

The network of medical institutions is concentrated primarily in the principal cities (Teheran, Tabriz, Meshed, Abadan and others). The rural population is not provided with the service of medical institutions.

First place in the number of foreign medical institutions that are available throughout the country is held by the Americans. One of the ways in which American imperialism is penetrating Iran is through the building of hospitals and the work of American doctors.

OUTPATIENT CARE

Basically outpatient care in Iran is provided by a private physician for a fee. In addition there are a certain number of hospitals of the dispensary type that are under the Ministry of Public Health and various societies. In 1960 there were 29 health centers, 386 outpatient care departments and 855 medical stations in the country.

PHARMACIES

Iran does not have a medical industry of its own. The medical network is supplied with drugs by the Pharmacy Department of the Ministry of Public Health that purchases these abroad, primarily in the USA. The purchase of drugs in pharmacies is difficult for workers.

MEDICAL PERSONNEL

According to data for 1960 there were 5,264 physicians (one per 3,900 inhabitants), 1,000 dentists, 1,500 nurses and midwives and 1,500 pharmacists in Iran.

Seventy percent of the doctors work in Teheran and other large cities. It is characteristic of Iran that there is an extremely unequal distribution of doctors. For instance, according to a report by the newspaper Ettelaat only two doctors have been practicing in recent years in the city of Shahrud, where 100,000 people live. Many doctors practicing on the periphery have not completed their medical training.

In Iran there is also a tremendous shortage of secondary medical

personnel. Thus, in 1952 there were 800 midwives in the country, of whom 470 lived in Teheran. Consequently, there were only 330 midwives for the rest of the population of Iran, or one midwife per 51,500 inhabitants (more recent data on medical personnel in Iran is not available).

In Iran, according to data, there are 6 higher medical schools. The principal of these is the medical school of the Teheran University which graduates 194 doctors annually. The remaining medical colleges graduate 181 doctors a year.

PUBLIC HEALTH BUDGET

An insignificant portion of the budget is allocated for the needs of public health in Iran. In 1961 the public health budget was 1.8% of the general budget at a time when 60% of the budget was allocated for military needs. Thirteen riyals or 0.14 US dollars per year is spent on each inhabitant.

YEMEN

Yemen is located in the southwestern portion of the Arab Peninsula. It has been a republic since September of 1962. A president heads the Yemen Arab Republic.

The area of Yemen encompasses 195,000 square kilometers. The population is approximately 5 million persons (1960). The capital is the city of Sanaa (approximately 60,000 inhabitants).

A population census has as yet never been carried out. Population density is on the average 25 persons per square kilometer. In certain regions of the country (in the mountain area and on the central plateau) the population density reaches 70 to 80 per square kilometer. Demographic statistics do not exist. According to WHO data, there is a high mortality and a high birth rate (consider that every couple has one child annually) in the country. Infant mortality is very high. According to some estimates, in Sanaa it amounts to 240 per 1,000 live births. As a result of early marriages (in Yemen 10 to 12 year old girls are given in marriage) and the lack of trained personnel to help in delivering babies, maternal mortality is very high.

Contagious diseases are very prevalent in the country: tuberculosis, malaria, dysentery, enteric fever, leishmaniasis, trachoma, venereal diseases and others. There are plague centers in the north of the country. Smallpox morbidity is extremely high. There is no registration of the disease.

Measures to control contagious diseases are carried out very poorly. Obligatory smallpox vaccinations have only recently been introduced. Narcomania -- the chewing of the leaf from the kat (*Celastrus edulis*) which contains narcotics -- is very prevalent.

The population suffers from poor nutrition. The basic food is millet.

The management of public health in the country is carried out

by the Ministry of Public Health which includes a department of public health headed by a director general, responsible for hospitals and medical personnel.

Yemen is one of the most backward countries in the field of public health organization. The supply of hospital beds is very low. There is a total of 1,527 beds or 0.34 beds per 1,000 population. There are only 3 hospitals functioning (in Sanaa with 512 beds, in Taiz with 715 beds and in Hodeida with 300 beds).

The hospitals are of a general type and primarily serve the city population. Medical assistance is not easily available to the broad strata of the population. Witch doctors have a large practice.

In 1959 with WHO assistance the first public health center, providing outpatient help, where work is carried out on sanitation and hygiene, maternal and child welfare and health education, was established in Sanaa for demonstration purposes. This center also serves as the base for the training of secondary medical personnel. Foreign doctors only work in Yemen. Since 1958 physicians from the USSR are working in the hospitals in the cities of Sanaa, Hodeida and Taiz.

There are very few native health workers. The medical school in Sanaa trains only laboratory technicians, assistants to nurses and health aides. In 1960 the entire medical personnel of the country was composed of 32 doctors, 2 pharmacists, 150 physicians aides (attendants), 8 laboratory technicians, 2 X-ray technicians, 16 nurses aides and 15 sanitation aides.

The health conditions of the cities and villages are unsatisfactory. Sewerage systems are lacking, and trash and sewage are thrown out on the street. Water mains are available only in the capital and in certain prosperous areas of Taiz and Hodeida. The allocations of the government for public health needs in Yemen were insignificant. In 1957-1960 on the average only 0.1 dollars were expended for public health per person.

To provide Yemen with assistance in the organization of the public health service 105,052 US dollars (0.02 dollars per person) were allocated in 1961 from the regular WHO budget and the UN Technical Assistance Program.

CAMBODIA

Cambodia is located in the southwestern part of the Indochinese Peninsula and borders on Thailand, Laos and South Vietnam. It has a territory of 172,511 square kilometers. The population, according to 1962 data, is 5,749,000 persons. Average density is 32 persons per square kilometer. The overwhelming majority of the population (approximately 90%) is composed of Khmers. The national minorities include Vietnamese, Chinese (250,000) and Laotians. In addition to that 3,000 Europeans live in the country.

The state system is a constitutional monarchy. Legislative power rests with a bicameral National Assembly. Executive power rests with the government.

Demographic indices (from WHO data)

Year	Births	General mortality	Natural increase	Infant mortality per 1,000 live births
	per 1,000 population			
1957	26.3	10.5	15.8	181.5
1958	28.4	9.8	18.6	152.7
1959	31.6	9.8	21.8	149.6
1960	29.2	9.9	19.3	146.7

In 1960 the following contagious diseases were prevalent in the country:

Frambesia	19,072 cases
Syphilis	16,053 cases
Tuberculosis	12,912 cases
Trachoma	11,382 cases
Dysentery	32,981 cases (1959)
Leprosy	2,260 cases

In the country up to the present time endemic breeding grounds for plague exist.

Morbidity according to the following causes in 1960:

Tuberculosis	322 cases
Syphilis	163 cases
Avitaminosis and other disorders of the organism	131 cases
Malaria	114 cases

Substantial success has been achieved in malaria control. In this area Cambodia cooperates with South Vietnam, Laos, Thailand, Burma and the Malayan Federation.

All work on public health is under the Minister of Public Health of Cambodia. There are 15 provinces in the country each of which has a public health department.

In 1960 hospital care was provided by 17 general hospitals with 2,723 beds. During the course of the year they treated over 44,000 patients. In addition to that there are one midwife-gynecology and one pediatric hospital with 168 beds, one 900 bed hospital for lepers, a psychiatric hospital, a clinic in the Institute of Ophthalmology and several centers for the treatment of tuberculosis, venereal and other contagious diseases. The coefficient of supplying the population with hospital care is equal to 0.6 beds per 1,000 population.

Outpatient care was provided by 156 health centers and dispensaries. During 1960 they served over 3,680,000 patients.

As a gift to the government and people of Cambodia the Soviet government constructed and equipped a 500 bed hospital in the capital Phnom-Penh, where a group of Soviet specialists is working. The USSR supplies Cambodia with drugs and reagents in sufficient amounts to guarantee normal service for the hospital in Phnom-Penh.

Dental care in the country is provided by 7 dental offices of which 5 are privately owned. In the provinces, stomatological care is provided by hospital doctors. The Ministry of Public Health has begun the organization of maternal and child welfare, but, as yet, this problem is being worked on only in the capital where the construction of a

hospital for infants is planned.

Approximately one half of the population of the capital and of the provincial centers is supplied with high quality drinking water. The remainder of the population uses rain water and well water.

In 1960 there were 56 doctors in the country. Of these 23 were in government service, 4 in the army and 29 in private practice; there were 6 dentists, 5 pharmacists, 465 midwives (of these 358 work in the rural areas), 127 health inspectors (of these 102 are in government service and 27 serve in the army) and 1,093 nurses. At the present time there are 32,152 inhabitants for each physician (taking into account the health inspectors). A higher medical school which trains physicians and public health workers has been established in the country. It is guided by the medical school of the University of Paris. Advanced courses for midwives and nurses have been organized at the school.

According to the law, industrial enterprises employing over 50 workers must have a medical station.

The volume of assistance to Cambodia for public health by international organizations (WHO, UNICEF and the UN) amounted to 243,323 US dollars in 1961.

Of the budget for 1960, which amounted to 4,420 million riyals, 6% was allocated for public health which amounted to approximately 54 riyals per member of the population.

SOUTH KOREA

South Korea is a republic located in eastern Asia on the southern part of the Korean Peninsula and on the surrounding islands.

In August of 1945 the Soviet Army, having crushed the Japanese imperialists, liberated Korea, which until that time had been a Japanese colony. Following the defeat of militarist Japan, the most important international acts (the Cairo and Yalta Declarations) envisaged providing independence to Korea. For the purpose of disarmament, the receiving of the capitulation of the Japanese armies and the provision of aid to the democratic forces of Korea temporary military administrations were established: to the north of the 38th parallel the Soviet and to the south of the 38th parallel the American. The joint Soviet-American commission was to further the establishment of a temporary Korean democratic government. However, as a result of the position taken by the American powers, the work of this commission was undermined. American powers and reactionary circles in South Korea started out on the path of splitting the country. In May of 1948 they organized in South Korea a separate election for the so-called national congress and established the puppet South Korean government headed by the American agent Syngman Rhee.

In 1950 the South Korean reactionaries together with American militarists began a war against the KNDR which lasted until 1953 and ended in a victory for the KNDR. In 1960 the popular masses rose up and forced the dictator Syngman Rhee to resign and to escape from the country. Following Syngman Rhee's escape from South Korea, a series of "palace coups" took place. The militarists established an even more cruel dictatorship and strived to crush the new wave of the revolutionary movement in which the youth and, primarily, the students are taking an active part.

The territory of South Korea is 96,929 square kilometers. The population is 26,354,000 (October 1962). Population density is 272 persons per square kilometer. The principal cities are Seoul, the capital (1,575,000 inhabitants), Pusan (1,045,000 inhabitants) and Taegu (487 inhabitants). For administrative purposes South Korea is divided into 9 provinces.

The demographic indices according to official WHO data are given in Table 1.

Table 1.

Natural population shift

Year	Birth coefficient per 1,000 population	Mortality coefficient	Natural growth (%)	Infant mortality per 1,000 live births
1957	22.4	6.9	1.55	155
1958	29.3	6.5	2.28	146
1959	39.6	7.5	3.21	98

Morbidity and mortality and their causes are presented in Table 2.

Morbidity and mortality registration in South Korea is incomplete and does not in any way reflect the existing situation. However, even from these data one can see that there are violent, dangerous infections of gastrointestinal contagious diseases and parasitic typhus in the country.

In 1960 2,500 cases of enteric fever were recorded. From 1956-1959 the number of patients with contagious diseases increased by 340%, and the number of those who died from these diseases by 377%. Along with acute contagious diseases a serious problem is posed by tuberculosis, venereal disease and leprosy.

In 1958 3,100 new cases of syphilis were registered, and in 1960 there were 1,656 cases. According to incomplete data in 1959 there were in South Korea over 2.1 million tuberculosis patients, of whom in 1960 10,341 died, and there were over 200,000 lepers.

In 1949 a Ministry of Public Health which was joined to the Ministry of Social Affairs in 1955 was established in South Korea.

The Ministry of Public Health and Social Affairs has three departments: preventive medicine, medical assistance and pharmaceutical.

The public health service has a three step structure.

- 1) general management is carried out by the ministry;
- 2) the provincial governments are responsible for the organization of public health in the provinces;

Table 2.

Dynamics of contagious morbidity and mortality from 1952 to 1960
(according to WHO data)

Disease	1952	1953	1954	1955	1956	1957	1958	1959	1960
Spotted fever									
Morbidity	923	410	287	79	—	—	162	—	—
Mortality	81	24	13	4	—	—	11	—	—
Recurrent typhus									
Morbidity	645	21	11	1	—	—	1	—	—
Mortality	24	1	—	—	—	—	—	—	—
Enteric fever									
Morbidity	3 969	1 352	602	343	—	619	1 319	—	2 896
Mortality	330	70	15	24	—	—	77	—	—
Dysentery									
Morbidity	1 506	1 139	534	321	33	106	30	—	—
Mortality	64	17	23	8	—	—	2	—	—

Scarlet fever									
Morbidity	5	2	—	1	—	—	9	—	—
Mortality	—	—	—	—	—	—	—	—	—
Diphtheria									
Morbidity	517	398	405	345	674	873	751	—	—
Mortality	56	42	28	20	62	86	77	—	—
Contagious encephalitis									
Morbidity	1 221	280	315	2 881	—	132	6 897	—	1 696
Mortality	526	112	140	888	—	56	—	—	—
Smallpox									
Morbidity	—	3 349	781	—	—	—	6	—	—
Mortality	—	571	122	—	—	—	2	—	—
Syphilis									
Morbidity	—	—	—	—	—	—	—	—	1 656
Mortality	—	—	—	—	—	—	—	—	—
Tuberculosis									
Morbidity	—	—	—	—	—	—	—	—	—
Mortality	—	—	—	—	—	—	—	—	10 341

3) local organs, having a public health section, keep an eye on the work of public health institutions.

Although health centers and dispensaries formally are available, they do not do anything with treatment. Their number is extremely limited; they are located in major cities and limit their work only to providing advice to the population, which they are not in the position to carry out.

According to reports from the South Korean newspaper Kenkhyan Sinmun, there is not one doctor in 562 districts with a population of over 6 million persons, hospitals are only available in the cities and treatment is very expensive and not accessible to the workers.

The South Korean journal Sin Tukhyan for December 1958 writes that in Seoul there are "public polyclinics" (free) which receive not more than 10 people a day and do not have drugs even for five. It is not difficult to portray the situation in the provinces.

The sanitary conditions are poor in the rural areas. Water mains are available only in the cities and only to 14% of the population of the country; the remaining 86% have private or communal water wells or use water from the rivers.

The problem of the removal of sewage is complicated by the fact that the peasants use it widely for fertilizer. Recently a struggle has been carried on against flies and mosquitoes.

In 1959 in South Korea there were 16 general hospitals with 3,290 beds (approximately 0.15 beds per 1,000 population), 3 psychiatric hospitals with 490 beds (0.02 beds per 1,000 population) and 32 hospitals for lepers with 21,691 beds. The total number of beds (including beds in the hospitals for lepers) numbers 33,885 or 1.5 beds per 1,000 population. There are 10 institutions for rehabilitation of which 9 are used for occupational training.

There is a shortage of medical personnel. In 1960 there were 7,322 doctors (one doctor per 3,150 inhabitants), 1,324 dentists, 4,247 midwives, 5,517 nurses, 4,104 pharmacists, 2,217 doctors and herb prescribers.

Despite the fact that there are 9 medical schools in the country and 24 nursing schools, as well as advanced courses for doctors, nurses and health workers, organized by the Ministry of Public Health and Social Affairs, they are not capable of coping with the problem of training personnel.

Of the expenditure portion of the budget for 1960 amounting to 423,770 million hwan, 1.1% which amounted to approximately 200 hwan per inhabitant was allocated for public health.

A tremendous portion of the state budget goes for the constantly

increasing military expenditures; in 1949 they were 26% of the entire budget, in 1953 64%, in 1957 67% and in 1959 exceeded 70%. In 1961 75% of the budget was allocated for military needs.

Certain assistance in the area of public health is provided by international organizations (Table 3).

Table 3.

Public health assistance by international organizations in 1961

Allocation	From regular budget	UN Technical Assistance Program	Other non- budget allocations
Tuberculosis control	--	22,870	--
Endemoepidemic diseases control	4,000	--	--
Leprosy control	--	19,970	--
Public health organization	13,127	--	--
Nursing	6,000	--	--
Total	23.127	42,840	--

LAOS

Laos is located in southeastern Asia on the Indochinese Peninsula and occupies a territory of 236,800 square kilometers. According to a 1961 estimate, the population is 1,850,000 persons. Population density is approximately 8 persons per square kilometer. The Basic population of the country is concentrated primarily in the Mekong River Delta and on its tributaries. Buddhism is the primary religion.

Laos is a constitutional monarchy. In accordance with the constitution the king is the head of state and the head of the armed forces; supreme religious powers also belong to him. The government of Laos is lead by Prince Souvanna Phuma.

The legislative organ in Laos is the National Assembly elected for four years by direct voting. Formal electoral rights are open to all citizens age 18. The king has the right to dismiss the National Assembly. The head of government is a prime minister who is appointed by the king.

DEMOGRAPHIC INDICES

Complete data on birth and mortality in Laos are not available since systematic registration is lacking. Infant mortality apparently exceeds 100 per 1,000 live births in the cities and is not less than 200 in rural areas.

Annually, cases of cholera and smallpox are recorded in Laos. Such diseases as malaria, syphilis, trachoma and leprosy are also prevalent in the country. Of the tropical diseases the most prevalent are filariasis, frambesia and beri beri. According to 1960 WHO data, 238,688 cases of malaria, 2,895 cases of syphilis, 3,071 cases of trachoma, 8,477 cases of dysentery and 135 cases of leprosy were recorded. However, morbidity registration in the country is far from complete and is available only for the urban regions.

For the purposes of malaria control Laos is cooperating with its neighboring countries. An anti-malaria coordination committee, the work of which is directed toward the implementation of a regional program for eliminating malaria in Indochina, was established. In 1957 of the two million inhabitants who live in the malaria regions, 120,700 were included in anti-malaria measures. Also being carried out (although on an insufficient scale) are smallpox vaccinations and cholera inoculations. In 1957 a special malaria control department was established in the Ministry of Public Health.

Public health in Laos is administered by a Ministry of Public Health headed by a minister. Basic responsibility for medical care in the country belongs to the director general of public health who is responsible to the minister and his two assistants. The deputy director general is responsible for hospitals and medical equipment. In the provinces the chief doctor of the province, to whom the chief nurses who head the medical stations in the rural areas are responsible, is responsible for public health.

The basic public health problems in Laos are the control of contagious diseases, training of medical and assistant personnel and the development of hospitals.

Laos does not have a special maternal and child welfare service. Individual maternal and child welfare institutions are available only in the principal cities.

Hospital care for the population is provided by the main hospital of Laos (Magasot Hospital) in Vientiane with 100 beds and several smaller hospitals in the provincial cities with 40 to 50 beds. The smaller cities have so-called dispensaries with 10 to 20 beds. The tasks of these institutions includes the treatment of the patient with ordinary diseases and the transportation of the seriously ill to the nearest hospital. In large cities the dispensaries do not have infirmaries. House calls are available only to those patients who can pay for them.

Several volunteer organizations including the Laotian Red Cross (in Vientiane) and the Association of Laotian women in the provinces take part in the medical service to the population.

In 1960 in Laos there were 6 general hospitals with 618 beds. There were 0.26 beds per 1,000 population. This year the hospitals admitted 9,609 persons. Outpatient care was given at 136 medical stations and health centers which in 1960 provided advice to 1,303,378 patients.

In 1960 there were 17 doctors and 22 doctor's aides working in the government service. In addition there were 3 doctors in private practice, 6 pharmacists, 6 midwives, 1 dentist and 453 nurses. There were 55,600 inhabitants for each doctor.

There are no medical schools in Laos (with the exception of the Royal College in Vientiane where 29 students are studying). Fundamentally medical training for Laotians is provided abroad. In 1956 12 Laotian students were studying at medical schools in France.

The health standards in the populated areas in Laos are not satisfactory and running water is not available anywhere (except in Vientiane).

In 1960 31% of the budget, which amounted to 86,636,580 kip, was expended for public health.

LEBANON

Lebanon is a republic in the Near East in the eastern part of the Mediterranean Sea. The head of state is a president elected by parliament for 6 years. The highest agency of state power is the unicameral parliament elected for four years.

The area of Lebanon is 10,400 square kilometers. The population is 1,620,000 persons (1960), primarily Arab. Population density is 115 persons per square kilometer. The capital is at Beirut (450,000 inhabitants).

Demographic statistics are extremely poor. Birth and mortality registration is incomplete. In 1960 according to UN data (without considering Israeli refugees, whose number exceeds 136,500 persons) the birth rate was 38.8 and mortality was 7.6 per 1,000 population.

As a result of the low state and the unhealthy living standards of the majority of the Lebanese population, contagious diseases are very prevalent. Morbidity registration is far from complete. In 1959 349 cases of enteric fever, 156 cases of diphtheria and 178 cases of dysentery were registered. Tuberculosis morbidity in 1959 (according to records) was 564 cases. In 1956-1957 there were outbreaks of smallpox (101 cases in 1956 and 108 cases in 1957). Venereal diseases and trachoma are prevalent. In 1959 182 cases of trachoma were registered.

A terrible scourge for the population of Lebanon is malaria. Until recent years annual registration was from 10,000 to 20,000 cases of malaria. Beginning with 1951 with the cooperation of the international organizations (WHO and UNICEF) a campaign was begun for malaria control. In 1957 in the rural regions 8,700,000 square meters of area were treated with insecticide (DDT) and 259,000 persons were treated.

In 1954 a special department for malaria control was established within the Ministry of Public Health.

The Ministry of Public Health has existed in Lebanon since 1952. It consists of three services: administration and finance, technical service

and service of medical assistance. Generally the problems of public health are administered by the technical service which includes 11 departments: sanitary techniques, control of contagious diseases, maternal and child welfare, school hygiene and health education demographic and health statistics and others.

Under the municipalities in large cities public health services working closely with the ministry are established. Public health centers which have a doctor, a nurse and a health worker on their staffs have been established in the okrugs.

In Lebanon medical care must be paid for and is not readily available to the working population.

The maternal and child welfare service is still in its initial stages. The first center for maternal and child welfare was recently opened with the assistance of WHO. There are not enough midwives, particularly in the rural areas where the majority of births take place at home without any medical assistance.

According to WHO data in 1959 there were 145 general hospitals with 6,300 beds in Lebanon.

In 1960 there were 1,531 doctors registered (one doctor per 1,100 inhabitants); in addition to that there were 458 dentists, 363 pharmacists, 644 graduate nurses and 375 midwives.

The training of doctors is carried on at two higher medical institutions in Beirut, the Institute of Medicine at the American University (a five year course with an annual registration of 40 persons) and the Faculty of Medicine and Pharmacology of the French St. Joseph University (a seven year course with an annual registration of 50 persons). Up to 50 physicians are graduated annually. Also there are 8 medical schools for the training of nurses. At the American University in Beirut a public health school, graduating public health organizers, health education workers, sanitary statisticians, laboratory workers and other specialists in the area of medicine, has been opened.

The Lebanese public health budget in 1959 reached 8.9 million Lebanese pounds, that is 3.4% of the national budget.

Allocations by WHO and the UN to aid Lebanon in the organization of public health amounted to 70,151 US dollars in 1960, that is approximately 0.04 dollars per inhabitant.

NEPAL

Nepal is a kingdom in southeastern Asia. The head of state is a king, Bir Bikram Shah Deva Mahendra, to whom the executive and the legislative powers belong.

The territory of the country is 140,800 square kilometers. The population is 9,407,000 persons (1961). Average population density is 66.8 persons per square kilometer. The Katmandu Valley is the most populated area.

Demographic data are not available because of lack of registration of births and deaths.

Morbidity registration is also not available in the country. In 1958 a cholera epidemic broke out, during which 2,706 cases of the disease, of which 384 were fatal, were counted. According to WHO data, tuberculosis is very prevalent, as are leprosy, malaria and smallpox. Over 4 million persons live in the malaria regions. Judging by reports from the hospital and outpatient aid provided to the population, in addition to the above list of diseases eye diseases, endocrine diseases (endemic goiter), diseases of the digestive and respiratory organs and others are very prevalent in Nepal.

Measures to control infectious diseases are being carried out poorly. According to WHO data, during 1960, treating of homes with DDT was carried out in a region including only 1.7 million inhabitants.

Public health problems are under the administration of the Ministry of Public Health Education and Local Government. The secretary to the minister has an assistant on public health. In addition to that the director of the public health services is responsible to the ministerial secretary and has two deputies, one on Allopathic medicine and the other on Aurveda.¹ Ninety-six local public health centers have been established in the rural areas recently. Medical service is not provided at industrial enterprises.

The health conditions in the populated areas are unsatisfactory

(houses do not have the elementary comforts: light, heat, etc.). In the capital of Nepal, Katmandu, only the principal streets have been paved.

According to WHO data in 1960 there were 1,139 hospital beds in the country (0.12 beds per 1,000 population), including 1,023 beds in general and 116 beds in specialized hospitals (of these 24 beds were for patients with contagious diseases, 52 beds were for tuberculosis patients and 40 beds for maternity cases). The first maternity hospital was opened in Katmandu in 1950 with assistance from WHO. There also are two dental polyclinics in Katmandu.

In 1960 there were in the country (according to WHO data) 338 various outpatient institutions (public health centers, medical aid stations, dispensaries, mobile stations and others). In 1962 in Katmandu the Kanti 50 bed hospital built with Soviet assistance began to function. The hospital, where Soviet and Nepalese doctors are working, is supplied with modern medical equipment sent from the USSR. The problem of medical personnel is very acute in Nepal.

The country is experiencing a great need in medical workers. In a majority of hospitals, in connection with the lack of the corresponding personnel, there constantly are vacancies for physicians, nurses and other medical personnel.

According to WHO data, there are only 128 doctors in Nepal (one doctor per 70,000 inhabitants). In addition there are two dentists, 16 medical assistants, 45 aids, 26 nurses, 14 assistant nurses and 22 orderlies.

Doctors are trained at medical schools in India where several students from Nepal are studying at the present time.

Nurses and other secondary medical personnel are trained within the country in schools established with the assistance of WHO. A nursing school has been functioning since 1959.

Allocations by the government for public health are insignificant. In 1960 only 4.9% of all the country's budget allocations were allocated for public health, that is 1.85 million Nepalese rupees.

WHO assistance to Nepal is expressed by participation (by providing malariologists-specialists, equipment, etc.) in the realization of the program for malaria control planned for eight years (1954 to 1962) with the sending of consultants on public health organization problems, the establishment of schools to train secondary medical personnel (nurses and aides), the provision of grants for training and probationary work in other countries, etc.

In 1961 44,806 US dollars were allocated from the regular WHO budget for these needs and 77,410 dollars from the UN Technical Assistance

Program and 152,930 dollars from the fund for malaria elimination.
Thus, all aid provided by international organizations amounted to 275,146
US dollars or 0.034 dollars per inhabitant.

Footnote

¹Aurveda--native medicine.

PAKISTAN

Pakistan is located on the Hindustan Peninsula. It appeared as an independent state as the result of the partition of India into two states -- Pakistan and India -- following its liberation from colonialism. The basic reason for the partition was a religious principle.

Pakistan consists of the two geographically separated parts, West and East Pakistan, separated from each other by 1,600 kilometers of territory belonging to the Republic of India.

The total area, according to 1961 data, is 944,824 square kilometers of which 300,000 square kilometers lies in West Pakistan.

Until 1955 West Pakistan was divided into 4 provinces (Baluchistan, West Punjab, North-West Frontier Province and the Province of Sind) and 13 kingdoms. In 1955 a new administrative system was set up. West Pakistan became a single province and was divided into 11 okrugs. East Pakistan was divided into three okrugs. The capital of Pakistan is Rawalpindi, and the administrative center of the western province is Lahore; of the eastern province it is Dacca.

Pakistan is a multi-national state containing Sindhi, Punjabi, Gujarat, Bengalese, Kafirs, Pathans, Baluchistani and others.

The official languages are Urdu and English. Eighty-six percent of the population is illiterate.

The standard of living in Pakistan is one of the lowest in the world. Significantly, the annual per capita income has decreased since Pakistan joined the aggressive military SEATO block. Thus, in 1958-1959 national per capita income was lowered to 243 rupees (approximately 46 rubles) at a time when military expenditures amounted to 1,397.6 million rupees, that is approximately 75% of all allocations for the current budget and over 36% of all expenditures for the total budget.

The registration of births and deaths is incomplete in Pakistan.

Therefore, the data presented in table 1 about the natural population shifts (separately for East and West Pakistan) which have been taken from the WHO Handbook, do not reflect the actual situation of the demographic processes in Pakistan.

Table 1.

Natural population shifts in Pakistan

Demographic phenomena	West Pakistan (1958)	East Pakistan		
		1957	1958	1959
Population (in thousands)	37,396	44,274	44,632	44,994
Births ¹	25.9	15.9	17.7	20.5
Deaths ¹	11.4	8.6	10.5	9.4
Natural increase ¹	14.5	7.3	7.2	11.1
Infant mortality ²	102.2	79.6	86.0	72.2
Maternal mortality ²	0.60	6.7	6.6	7.4

¹ Per 1,000 population

² Per 1,000 live births

Data on morbidity are fragmentary and not precise. Malaria is one of the chief problems of Pakistani public health. Approximately 60 million people live in the malaria zone, and approximately 30% of the population suffers from malaria (Table 2). Since 1951 with the assistance of international organizations a struggle has been carried on against this disease. A malaria institute has been opened in Dacca with a branch in Karachi.

In recent years malaria mortality amounted to approximately 100,000 persons per year.

Table 2.

Country	1948	1949	1950	1951	1952	1953	
Pakistan	124,516	105,989	101,256	95,881	100,629	95,203	...
Including							
W. Pakistan	13,818	12,688	16,795	9,201	6,084	11,200	--
East Pakistan	110,698	93,301	84,461	86,680	94,545	84,003	77,708

Tuberculosis is also very prevalent in Pakistan. In Karachi, for instance, 873 persons (92.7 per 100,000 population) died from tuberculosis during 1957. A center for tuberculosis control has been established here. In 1957, according to official figures, tuberculosis tests were carried out on 22,700,000 persons, and BCG inoculations were given to 7,900,000 persons.

The president of the Pakistan Association for Tuberculosis Control Ali-Shah Riyadh, speaking on 16 December 1961 in Lahore at the regular annual meeting of the association's membership, declared that 505 people die every day in Pakistan from tuberculosis (197 persons per 100,000 population annually). To struggle against this disease the country is forced to expend 25,630,000 rupees annually.

Pakistan is an endemic breeding ground for cholera and smallpox.

In 1962 3,512 cases of smallpox and 2,497 cases of cholera were registered.

According to data from the interregional conference of WHO on Leprosy (Tokyo, 1958), there are approximately 3,000 registered lepers in West Pakistan, of whom only 250 are in hospitals for lepers. In reality the number of lepers significantly exceeds the number of those registered. According to data in the Pakistani press, they number approximately 100,000. Approximately 150,000 people suffer from nervous and mental diseases.

PUBLIC HEALTH ORGANIZATION

The Ministry of Public Health has a General Directorate composed of a council for matters on secondary medical personnel, a maternal and child welfare service and an office of health education, etc.

There is a public health service director in every major city of each province, and in each okrug there is a department of public health; at the head of each department is a doctor who controls the department and has several assistants. The okrug is divided into regions and the regions into communes. Municipal doctors work in some of the communes.

UNICEF is providing assistance to Pakistan for maternal and child welfare. By 1955 250 maternal and child welfare stations had been equipped. Their work is insignificant. Every station serves a total of 40 to 50 mothers and children. The Pakistani government allocates up to 600 dollars a year for each station. Although a law has been passed for the establishment of accommodations for children up to age 6 at all enterprises employing over 50 women, this decree in reality has not been observed. The situation with medical personnel is difficult, particularly

following partition and after Indian medical workers had left the hospitals.

In 1960 there were 10,693 doctors in Pakistan. Thus, there were approximately 9,600 inhabitants for each doctor. The training for medical personnel is insufficient; the 15 medical schools available graduate 750 doctors every year. Pakistan does not publish reports on hospitals. In 1960 there were 28,000 beds in the hospitals (one bed per 3,150 inhabitants).

During 1961 Pakistan received aid from international organizations in the amount of 806,050 dollars (Table 3).

Table 3.

Assistance from international organizations to Pakistan
for public health in 1961

Allocation	Regular budget	UN Technical Assistance	Other non- budget allocations
For tuberculosis control	42,824	--	136,000
For virus disease control	3,700	--	--
For public health organization	2,750	15,150	139,000 ¹
For statistics	--	12,525	--
For nursing	13,316	--	10,000 ¹
For leprosy control	2,608	--	11,000
For maternal and child welfare	26,504	--	286,000
For food	--	1,600	13,000 ¹
For environmental sanitation	--	16,630	--
For education and training	46,033	--	5,000
For other measures	--	10,420	12,000 ¹
Total	137,735	61,325	607,000

¹Aid from UNICEF

According to the five year plan (1955-1960), 400 million rupees were allocated for public health expenditures. It is envisaged that approximately 60% of these allocations will be spent on the treatment service and the remaining sum on hospitals.

¹Rawalpindi is the temporary capital of Pakistan.

SAUDI ARABIA

Saudi Arabia is an absolute monarchy headed by a king. The territory covers approximately 1.6 million square kilometers. The population is approximately 7 million. Average population density is 4.4 per square kilometer. The capital is Riyadh (approximately 250,000 inhabitants).

A population census is not conducted. There is no registration of births and deaths.

In Saudi Arabia there is a significant morbidity from contagious diseases. However, the registration of the morbidity is poorly organized, and, therefore, data are very incomplete.

In 1958 156 cases of smallpox were recorded and in 1960 32 cases. In 1959, according to registration data, there were 10,191 cases of tuberculosis, 9,297 cases of malaria, 6,571 cases of measles, 3,228 cases of whooping cough, 829 cases of enteric fever and 754 cases of syphilis and its consequences.

In recent years with the assistance of WHO a number of special investigations to uncover morbidity of certain contagious diseases were conducted. In 1955 an investigation on tuberculosis was carried out. In Asir, Medina and Nejd investigations to disclose venereal diseases were carried out. In Mecca a center has been established for the control of venereal diseases which has a serological laboratory.

With the assistance of WHO a program is being carried out for malaria control in Jidda and the surrounding territories.

In 1956 a quarantine station which is of great importance in connection with the pilgrimages to Mecca was opened in Jidda.

In recent years outbreaks of quarantined diseases have not been noted among the pilgrims to Mecca.

Vaccination against smallpox is obligatory. In 1959 194,980 persons were vaccinated. In addition to that in 1959 inoculations against cholera were given to 65,102 persons, against enteric fever to 9,015 persons and against polio to 4,775 persons.

The public health program is administered by the Ministry of Public Health, headed by a minister and a minister's assistant. In 1960 the Ministry of Public Health was reorganized, and two new departments were created for treatment and international public health.

Several years ago the Ministry of Public Health worked out a five year plan for the organization of public health. According to this plan, the kingdom is to be divided into 6 health regions. At the head of each region must be a doctor, appointed by the ministry of public health: as the representative of the Ministry of Public Health, the doctor is responsible for the maintenance of hospitals in the region and for treatment, quarantine and other measures.

The regions are divided into health districts, each of which is also headed by a physician. In each of these health districts the creation of hospitals and treatment centers, providing direct service to the population is envisaged. According to the present plan, in 5 years there will have to be established 75 hospitals with 5,400 beds in the 39 districts. In addition to that the establishment in these districts of 30 quarantine stations (at seaports and airports), 17 malariological stations, 5 maternal and child welfare centers, 4 venereology centers, one public health center and one school for the training of public health nurses is envisaged.

The realization of this plan is being held back primarily as a result of the shortage of medical personnel.

According to WHO data in 1960 there were a total of 485 doctors in Saudi Arabia, that is there were 14,141 inhabitants per physician; there were also 40 dentists, 697 nurses, 125 midwives and 43 pharmacists.

There are no higher medical institutions in the country and students wishing to study medicine go abroad to the UAR and other countries. In 1959 the first school for the training of orderlies and other assistant medical personnel was established. The first graduation was held in 1961.

There are not enough hospitals. In 1960 there was a total of only 43 hospitals with 3,919 beds (0.56 beds per 1,000 population), including 26 general hospitals with 1,963 beds and 11 hospitals for contagious diseases with 1,429 beds.

According to WHO data, allocations for public health in Saudi Arabia are not large and comprise only 5.4% of all the country's budget allocations.

Assistance is being provided by WHO in the organization of public health in Saudi Arabia. During 1958-1959 with assistance from WHO a maternal and child welfare center, which is to be used for demonstration of modern methods of training secondary and assistant medical personnel to assist during birth, to take care of children and to handle other problems of maternal and child welfare, was organized in Jidda.

With the assistance of WHO consultants a laboratory for public health to carry out epidemiological investigations on contagious diseases was also organized.

Who also provided help (equipment, teachers and others) in the organization of a school for the training of health inspectors.

In 1961 the regular WHO budget allocated 64,944 US dollars for measures to improve public health in Saudi Arabia and the UN Technical Assistance Program provided 45,410 US dollars.

THE SYRIAN ARAB REPUBLIC

SYRIA

12

The Syrian Arab Republic is a state in the Near East which was formed in September of 1961, following Syria's secession from the United Arab Republic.

The head of state is a president. Highest legislative power belongs to the constituent assembly. Executive power is in the hands of the president and the council of ministers.

The area of the country is 184,000 square kilometers. The population (1960) is 4.8 million.

The population is distributed across the country very unevenly. In various provinces population density varies from 5.7 persons per square kilometer (the Euphrates province) to 93.6 per square kilometer (the Lattakia province). Average population density is 26 per square kilometer. If one takes into account that over 15,000 Syrians are still nomads or semi-nomads and considers only the permanently settled areas of the country, then the average population density will be substantially increased and amount to 67 persons per square kilometer.

The overwhelming majority of the country's inhabitants are Arabs-Syrians, the more numerous national minorities are the Kurds and the Armenians.

The principal cities are Damascus (the capital), Homs, Aleppo and Lattakia. The registration of the reports of the civilian status are incomplete and apparently only reflect the movement of the population in the cities (see table).

In addition the official demographic statistics do not include a report on the nomads and on refugees from Israel, of which there are over 300,000 persons.

In this manner the indices provided in the table are purposely reduced and do not give a true picture of the reproduction process in the

country. In reality, if one is to consider the economic backwardness of the country, the low standard of living of the population, the poor organization of the medical service and other factors, one must assume that the indices for general and infant mortality are significantly higher in Syria. In the Syrian Arab Republic various contagious diseases are prevalent: gastrointestinal infections, malaria, tuberculosis, trachoma, venereal diseases and others. Registrations of the diseases is very incomplete.

Natural population shifts (1948-1960)

Demographic aspects	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Births ¹	19,2	24,2	22,5	25,2	25,7	25,2	22,3	20,9	24,8	24,3	26,6	25,0	30,5
Deaths ¹	6,5	8,5	7,3	7,2	6,8	7,0	5,9	4,7	5,4	5,6	5,6	5,1	5,5
Natural Increase ¹	12,7	15,7	15,2	18,0	18,9	18,2	16,4	16,2	19,4	18,7	21,0	19,9	25,0
infant Mortality ²	47,6	—	—	40,1	43,1	44,0	53,6	53,6	—	—	—	—	—

¹ Per 1,000 inhabitants

² Per 1,000 live births

In 1959 622 cases of enteric fever and paratyphoid, 127 cases of diphtheria, over 300 cases of meningococcus infections, 852 cases of measles, 1,210 cases of epidemic paratititis, 14 cases of acute polio, 4,081 cases of syphilis and 34,319 cases of malaria were registered.

In recent years measures for malaria control and mass preventive inoculations have been carried out with the assistance of WHO on a wider scale. In 1958 homes with 870,000 inhabitants were treated with insecticides.

In 1960, according to WHO data, the following inoculations were carried out: 118,651 initial vaccinations against smallpox, 17,282 BCG inoculations, 14,816 inoculations against cholera and 3,875 inoculations against enteric fever and paratyphoid.

The central public health agency in Syria is the Ministry of Public Health.

Local Administration of public health organizations is carried out by public health departments in the oblasts and by the municipal public health services. In 1954-1955 local services were established for infectious diseases control, for maternal and child welfare, for environmental treatment and for health education.

The situation with maternal and child welfare is very serious. There is a shortage of midwives. The majority of births take place without any medical assistance. The tradition of early marriages has a very negative effect on the health of Syrian mothers and children.

Medical service to workers at industrial enterprises has not been organized.

Sanitary and hygienic conditions in the country are very low. The majority of the peasants live in primitive mud huts or in lean-to's made out of cane, where they eat and sleep on the ground. Many city workers huddle in lean-to's put together out of pieces of wood, metal or plywood. Unhealthy conditions and congestion are one of the causes for the high morbidity of contagious diseases among the population.

Measures to improve the living standards and to raise the standard of sanitation are carried out insufficiently. Health education is insufficient.

In 1960 there were only 3,447 hospital beds (0.76 beds per 1,000 population) in Syria.

Among the hospitals available there are 18 general hospitals with 2,222 beds, 2 psychiatric hospitals with 500 beds, 8 hospitals for contagious diseases with 865 beds and other institutions.

Medical help must be paid for, and only certain categories of people receive free treatment.

In 1960 there were 984 physicians (one doctor per 4,640 inhabitants), 219 dentists, 350 pharmacists, 275 nurses and 70 midwives in the country.

The training of medical personnel is carried out at the medical school of the Syrian University. The course lasts 6 years. The annual graduation class includes 50 to 60 doctors.

At the Syrian University there is also a school for the training of secondary medical personnel: another school for the training of secondary medical personnel is administered by the Ministry of Public Health.

The public health budget in Syria is insufficient. The government allocates not more than 4% of all the country's budget expenditures for the needs of public health. The allocations by international organizations (WHO, UNICEF, UN) for assistance to Syria in the improvement of the organization and the state of public health in 1961 amounted to 304,131 US dollars or 0.063 dollars per inhabitant.

THAILAND

Thailand is a state located in southeast Asia along the Indochinese Peninsula. The territory covers 514,000 square kilometers. The population is 21,181,000 (1961). Population density is approximately 53 persons per square kilometer. Bangkok (population 1,330,000 persons) is the capital and an important seaport.

Demographic and health statistics

In 1936 a demographic statistics division was established within the department of public health. However, up til now the registration of reports on civilian status are limited to the major cities (Bangkok and others). There fore, data published by Thailand on population shifts do not reflect the actual situation.

Births here, as in all economically backward countries, are high but mortality, particularly infant mortality, is also high. It significantly exceeds the official mortality data presented in Table 1 below. According to WHO data, the average life expectancy in 1947 was 48.5 for men and 51.4 for women.

Table 1.

Population shift				
Year	Births	Deaths	Natural increase	Infant mortality
	per 1,000 population			per 1,000 live births
1953	31.5	9.5	22.0	64.9
1954	34.8	9.8	25.0	63.6
1955	36.0	9.4	26.6	56.1
1956	38.2	10.0	28.2	55.3
1957	33.7	10.3	23.4	62.2
1958	33.6	8.8	24.8	54.1
1959	35.6	8.5	27.1	47.1
1960	34.7	8.4	26.3	49.0

MORBIDITY

Contagious (primarily gastrointestinal), parasitic and tropical diseases rage in Thailand, as in other dependent and poorly developed countries. A precise picture of morbidity cannot be presented because of the lack of their registration throughout the country. But, even from available data, it can be seen that the basic causes for death are infectious diseases during infancy -- malaria, tuberculosis and gastrointestinal diseases.

Causes for mortality in 1959 were as follows:

Malaria	8,520 cases
Tuberculosis	9,857 "
Gastroenteritis and colitis	9,481 "
Pneumonia	8,839 "
Arteriosclerosis and degenerative diseases of the heart	4,030 "
Avitaminosis and other diseases	3,777 "
Metabolic diseases	3,867 "
Injuries	4,527 "

As for particularly dangerous infectious diseases for which registration is obligatory, according to official statistics, smallpox is endemic here although vaccinations are provided against smallpox in the country. In 1961 33 new cases of smallpox were registered. In 1960 4,135,604 persons were vaccinated. Plague was registered until 1952, and in 1958 an epidemic of cholera broke out in the country (Table 2). Leprosy presents a more serious public health problem in Thailand. It is particularly prevalent in the northern and northeastern portions of the country. According to official data there are up to 100,000 persons suffering from leprosy in Thailand.

There are two state owned hospitals for leprosy and 12 leper colonies in the country. In addition to that, a home for lepers, administered by a private organization, has been established in Chiang Mai Province.¹

A program for leprosy control has been outlined that, during the 6 years from 1960 to 1965, envisages treatment of 40,000 to 50,000 patients, that is approximately one half of the total number of lepers throughout the country. In 1959 of the 2,206,515 persons examined, 21,832 cases of leprosy were discovered and treated.

Until 1949 malaria was one of the principal causes of morbidity and mortality in Thailand. Investigation established that almost one half of the population lives in malaria regions. Following this, measures were adopted to control malaria.

Table 2

Morbidity rate for particularly dangerous communicable diseases
(in absolute figures)

Disease	1950		1951		1952		1953		1954		1955		1958		1959	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Smallpox	348	41	34	2	43	9	50	—	21	—	117	2	28	7	1 548	272
Cholera	—	—	1	—	—	—	—	—	—	—	—	—	11 582	1 747	7 777	625
Plague	57	10	5	1	9	4	—	—	—	—	—	—	—	—	—	—

A - Morbidity

B - Mortality

The inclusion of Thailand in the aggressive SEATO block and the construction of bases for American imperialists in this country caused the need for treating the sections of the territory of Thailand where the bases are located. The experience of World War II, when Anglo-American forces in Asia lost more forces to malaria than to enemy forces, is now forcing the Americans to pay attention to environmental sanitation in areas where the troops were to be located (and in eventual disposition areas).

In addition, it is necessary to consider that the capitalists who have plantations with strategic crops (rubber) are also interested in environmental sanitation. This explains in part the measures being carried out in Thailand (and in other SEATO countries) toward malaria control. In 1960 15 million persons out of the 16.5 million who live in malaria areas were covered by anti-malaria measures. However, up till now there are still regions where treatment of houses with DDT has been stopped or has not begun.

Endemic filariatosi is prevalent in the flat lands and in the low lands of a number of rural areas along the eastern coast, as well as in the southern provinces of Thailand.

Frambesia, for instance, is prevalent in approximately 40 provinces of Thailand, and approximately one tenth of the population has been struck by this disease.

Tuberculosis is one of the more prevalent diseases. As has been pointed out above tuberculosis has the highest mortality rate. The precise number of patients is unknown. According to data from government public health agencies, tuberculosis control was begun in 1951. In 1959 tuberculosis dispensaries were visited by 120,000 patients.

During 1959 two mobile tuberculosis control teams worked in the rural areas. They conducted tuberculosis tests and BCG inoculations. In 1960 458,874 persons were inoculated.

As noted above, a large morbidity and mortality rate from parasitic diseases has been noted in the country. During 1951-1955 over 263,000 patients were found. According to data from the Ministry of Public Health, the percentage in the south reaches 98.8. Such a situation is explained by the extremely low level of environmental sanitation.

PUBLIC HEALTH ORGANIZATION

In 1888 a department of medical assistance, which can be considered the first public health agency in Thailand, was established. Its main function was hospital administration in Bangkok. In addition, the department was concerned with conducting smallpox vaccinations.

In 1897 the first law was passed on public health, envisaging the appointment of a public health inspector and a city engineer who were responsible for contagious disease control and for the maintenance of cleanliness. In 1908 these functions were transferred to the Ministry of Internal Affairs. In 1909, soon after the implementation of the experimental plan on health measures in the region of Trahal (across from Samutsakorn), a law on provincial health agencies, according to which health councils were established in the cities and communes was adopted. These councils were responsible for the prevention and treatment of diseases and for the maintenance of cleanliness and for the supervision of roads.

In 1915 the administration of health councils was transferred to the medical department -- a new agency established under the Ministry of Internal Affairs. In 1918 by royal decree a department of public health, responsible for the implementation of supervision over public health services and medical institutions, located in the capital and in the provinces, was established.

The basic function of the department was the implementation of certain health measures (in cooperation with the Rockefeller Foundation)

for health education among the population, the organization of demographic and health statistics in the cities, contagious disease control, narcotics control and the implementation of sanitation and engineering works.

The Ministry of Public Health was organized in 1942. It consists of a secretariat to the minister, an office of the assistant to the minister, a department of medical services, a university of medical sciences and a department of public health. Under the direct control of the minister of public health is a committee for medical research, state pharmaceutical laboratories and a national committee on nutrition.

The deputy minister controls the medical council and the committee on the control of the sale of drugs and administers health control of production enterprises, the sale of food produce, tuberculosis control, etc. There is a division of hospital assistance under the department of medical service.

The following divisions are part of the Department of Public Health: demographic statistics, health education, control of infectious diseases, control of tuberculosis, rural public health, sanitation and engineering works, school hygiene and maternal and child welfare, control of malaria and filariatosis, control of leprosy, control of venereal diseases and frambesia and nutrition.

In addition to that there are public health agencies and regional public health inspectors in the provinces.

MATERNAL AND CHILD WELFARE

The network of maternal and child welfare institutions did not exist until World War II. This problem has still not been solved. Thanks to aid from WHO and UNICEF a certain amount has been achieved in this area. Thus, in 1950 two mobile brigades to provide maternal and child care in the outlying regions were organized. In 1952 in Bangkok and in Chiang Mai demonstration centers for maternal and child care, which served to train midwives and health workers, were organized. A child treatment center for children whose parents had been stricken with tuberculosis was opened in Nonthaburi with UNICEF aid.

In 1959 there were 1,407 prenatal stations which were visited by 83,926 women. During this same year 50,722 births took place in the presence of physicians or midwives. There were 46,228 children up to one year of age under medical observation. Two schools have been constructed for the training of midwives. UNICEF provides milk and other products to the most needy mothers through health centers.

MEDICAL SERVICE TO THE POPULATION

Medical service to the rural population is unsatisfactory despite the presence of so-called health centers. As a result of the shortage of medical personnel and hospitals, as well as as a result of the poverty of the population, medical assistance is practically unavailable to the rural workers.

Rural health centers are divided into three groups: the centers of the first category which have a small 10 bed dispensary to provide emergency aid, which have a staff made up of a doctor, a nurse, a sanitation worker and a midwife; the center in the second category, the staff of which includes a sanitation worker and a midwife; the center of the third category which is simply a midwife station with a midwife.

In 1956 there were 105 centers of the first category, 655 centers of the second category and 153 midwife stations.

SANITATION AND HYGIENE

The sanitary condition of the environment is unsatisfactory. It is sufficient to note that a majority of the rural population use surface water or collect rain water for drinking. The low level of health standards brings with it diseases of avitaminosis (in particular beri beri) and parasitic invasions.

Since 1952 work has been begun in environmental sanitation. A joint administration of representatives from the division of environmental sanitation of the department of public health and the department of mining, irrigation and social affairs has been established for the testing of underground water. The construction of new and the restoration of old wells has been begun in the country. One of the most important tasks for public health is the system of sewage disposal in rural areas.

In 1959 a new environmental sanitation plan was set up which must encompass 50,000 villages in the country. According to this plan it is envisaged to construct sanitation points in every house and to assure the population of high quality water.

HOSPITALS

One generally pays for medical service in Thailand. Free medical assistance is only provided by certain medical institutions located in the principal cities.

According to official data there were 134 general hospitals with 9,734 beds (or 0.38 beds per 1,000 population) in 1960 in the country. In addition to this there were 7 psychiatric hospitals with 4,746 beds, 2 hospitals for communicable diseases and one tuberculosis hospital.

In 1960 there was a total of 21,375 beds, which amounts to 0.84 beds per 1,000 population.

Various types of hospitals are located primarily in Bangkok, Tonburi and several other large towns.

The overwhelming majority of the population is forced to use the services of witch doctors.

MEDICAL PERSONNEL

Personnel are trained at the medical university in Bangkok that annually graduates 150 to 200 doctors, as well as at courses for nurses and midwives.

As a result of the shortage of qualified nurses, women who live in the rural areas and who are willing to study at the medical school are offered and given grants.

In the country there are (according to 1960 data) 3,402 doctors, that is 7,500 persons per doctor, 242 dentists, 843 pharmacists, 9,198 nurses and 507 midwives.

BUDGET

Participation in military blocks and the tremendous military expenditures which swallow up a substantial part of the national wealth have a negative effect on the economic and social development of Thailand. If in the past the economy of Thailand was, as a result of the specifics of the historical economic development of the country, in a more favorable condition than the economy of the neighboring colonial countries, then at the present time the situation has sharply changed. The basic part of the budget expenditures of Thailand (60 to 70%) go for military purposes, and these expenses substantially exceed the "aid" received from abroad.

The chief items in the expenditures are the allocations for the needs of the Ministry of Defense (20.8%), for the police (11%), and for the repayment of loans (10%).

In 1960 the expenditures for public health amounted to only

8.6 baht per inhabitant.

In addition Thailand receives certain help for public health purposes from international organizations (WHO, UNICEF and the UN Technical Assistance Fund) (Table 3).

Table 3.

Aid from international organizations for 1961 (in US dollars)			
Allocation	WHO	UN	UNICEF
Tuberculosis control	--	78,840	36,500
Venereal diseases and treptonenatosis control	--	58,380	50,000
Virus diseases control	8,040	--	--
Leprosy control	61,160	--	45,000
Demographic and public health statistics	8,500	27,220	--
Nursing	--	21,670	--
Maternal and child welfare	--	--	141,300
Nutrition	--	--	11,500
Education	48,400	--	7,200
Total	126,100	186,110	291,500

In 1961 this aid amounted to 603,710 US dollars (0.02 dollars per inhabitant).

¹A leprosy control institute was built in 1960.

TURKEY 121

Turkey is a bourgeois government and its form of government is a parliamentary republic.

Turkey is located in Asia and in Europe, in the Asia Minor Peninsula and in the Balkans. It borders on the USSR, Iran, Iraq, Syria, Bulgaria and Greece. The territory of Turkey is 781,000 square kilometers (1961).

In contrast to many other countries in Asia, Turkey has carried out a periodic state census of the population since 1927.

Census figures by year

Year	Number of inhabitants
1927	13,648,270
1935	16,158,018
1940	17,820,950
1945	18,790,174
1950	20,936,524
1955	24,109,000
1956	24,797,000
1957	25,498,226
1958	26,246,614
1959	27,016,935
1960	27,829,831
1961	28,602,000

The average population density throughout the country is 31 persons per square kilometer. The overwhelming majority of the population lives in the Asian part of the country. Turks comprise 88.3% of the population, Kurds comprise 7.8%. In addition to this Arabs,

Georgians, Armenians, Greeks, Lazes, Circassians, Jews and others live in the country. The main religion is Islam (of the Sunni sect) practiced by 98% of the population; 1.1% of the population are Christian.

Table 1.

Population shifts			
Year	Birth coefficient	Mortality coefficient	Natural increase
	per 1,000 population		
1957	53.3	10.0	43.3
1958	31.0	10.0	21.0
1959	33.7	10.0	23.7
1960	31.5	9.2	22.3

It is not possible to acquire a true picture of the population shifts in Turkey. Data on births and especially on mortality are incomplete since these only refer to the major cities. After all it is impossible to believe that in Turkey mortality is lower than in England, Belgium, France and the FRG. Considering the huge infant mortality rate among the rural population (165 per 1,000 live births), one must believe that total mortality in Turkey is substantially higher than the published data show (Table 1).

MORBIDITY AND MORTALITY

The fundamental public health problem in Turkey is tuberculosis and malaria control.¹ In recent years in Anatolia approximately 85% of the population suffered from malaria. In 1955 over 485,000 cases of the disease were reported. This in particular was caused by an irrigation agriculture (rice fields), in connection with which the government passed a law requiring the drying of fields for 48 hours every 10 days (this refers to rice fields which are located at a distance of 3 kilometers from the nearest settlement). In 1958 malaria morbidity was reduced to 11,213 cases. In 1960 recurrent malaria morbidity amounted to 2,841 cases.

Tuberculosis is the second most important problem, after malaria. Until World War II tuberculosis mortality in the three principal cities of the country, Istanbul, Ankara and Izmir, was 150 to 200 and in the rural areas from 80 to 100 per 100,000 population. Since 1948 Turkish health agencies have carried out mass BCG inoculation campaigns; in recent

years with the participation of WHO and UNICEF 9,033,744 inhabitants have been tested for tuberculosis. In 1954 BCG inoculations were given to 96,347 persons, in 1955 to 1,567,535 persons and in 1957 to 1,381,040 persons. In 1959 tuberculosis mortality in these cities was 6,170 cases. There are 540,000 registered cases of tuberculosis.

Of the gastrointestinal illnesses enteric fever is registered. In 1960 there were 6,884 cases of this infection reported.

Syphilis control began in 1921. According to the latest data, the number of patients was reduced from 104,491 in 1950 to 61,000 in 1955. There were 4,115 cases of syphilis reported in 1960.

Among patients visiting eye clinics, those suffering from trachoma comprised 27.3% in 1951 and 17.3% in 1955. At the present time trachoma morbidity still remains high. In 1960 34,731 cases of trachoma were reported. There is a total of two million trachoma patients.

Obligatory smallpox vaccination has been adopted in Turkey. In 1957 128 cases of smallpox were recorded, and during the same year 3,652,632 anti-smallpox vaccinations were provided.

PUBLIC HEALTH ORGANIZATION

The founding of public health organizations in Turkey goes back to 1827 when the Academy of Military Medicine in Istanbul was established. In 1838 the High Council for Public Health was established, followed in 1840 by the Civilian Council for Public Health. Certain laws on public health have come into effect since 1860, and the first national medical institutions appeared. The First World War slowed down the development of public health services. In 1920 on the initiative of Attaturk, the first Turkish president, the Ministry of Public Health and Social Assistance was created; however, the foundation for modern public health organizations in Turkey was laid down in 1930.

At the present time the Ministry of Public Health and Social Aid, headed by a minister, exists in Turkey.

The ministry consists of departments of public health, social assistance and border health control, as well as the departments of personnel, pharmacy, health education, sanitation statistics and malaria control. There is a council of inspectors and a consultative-research council under the ministry. The High Public Health Council, consisting of nine members who are leading specialists in the fields of public health, gathers three times a year for a ten day period.

The provincial public health institutions are responsible to a governor, and the manager (director) of the public health service is a

consultant to the governor. The public health service director guides the work of all public health institutions at the provincial level. There is a regional public health inspector who is a consultant for the regional ruler.

In addition to the ministry the insurance agencies for workers, the state railroads and certain other state and public organizations also engage in public health problems.

Maternal and child welfare in Turkey has been developed somewhat during the last 25 to 30 years only and is far from sufficient for the needs of the population. A special maternal and child welfare department under the ministry was established only in 1952. In 1926 there were only two maternity hospitals with 25 beds in the country. In 1959 the number of maternity hospitals had increased to 28 with 2,753 beds. In certain cases the pregnant women are given an advantage when they are placed in the health centers and general hospitals. In 1956 midwife and gynecology departments were established at the 57 general hospitals. In addition to this there are several mobile teams to provide medical assistance to mothers and children in the distant provinces.

Public health is just beginning in schools in Turkey. The establishment of local school public health centers with a population of not less than 10,000 inhabitants is envisaged. So far medical offices have been established only in certain schools. They carry out medical examinations, provide dental care, BCG inoculations and tuberculosis tests. Nevertheless, the health of the children leaves much to be desired. According to data from the Ministry of Public Health, 40% of the mortality is among children up to age 4.

The first legislation touching upon industrial public health goes back to 1923. In 1930 various laws were adopted on industrial hygiene. However, they are still not being implemented. Factory inspections, for which the Ministry of Labor and the Ministry of Public Health are held responsible, in practice do not satisfy the requirements of the medical service for industrial workers.

The social insurance system was established in Turkey only after World War II and by 1956 included approximately 435,000 members out of a total work force of one million.

Medical service to the rural population is poor; the majority of doctors live in the city. Health centers can only partially satisfy the needs of the population that lives in nearby settlements. The overwhelming majority of hospitals are also concentrated in the cities.

The public health law passed in 1930 determined the rights and obligations of state and local public health services. In accordance with this law the municipalities are responsible for health measures, the treatment of mental patients, assistance to the poor, assistance to

orphans, etc. The municipalities are also responsible for the establishment of first aid stations and the construction of hospitals.

The ministry also includes health inspectors and a health service in the provinces. There is an Institute of Hygiene in Aden equipped with control and research laboratories, as well as a center for the manufacture of vaccines and serums and a general directorate for health education which publishes various booklets, films and posters. Recently an institute of health education was established. The problems of health education are also worked on by various voluntary organizations. In addition to this the Ministry of Public Health cooperates on questions of sanitation services and health education with such voluntary organizations as the Red Crescent, the State League for Tuberculosis Control and the Association for Child Welfare. Practically, however, health education is not accessible to the majority of the population, as a result of its illiteracy, poverty and oppression.

Turkey was always an endemic breeding ground for particularly dangerous infections; therefore, quarantine measures were implemented as far back as 1840, when an international organization was established in Turkey. The task of this organization was to protect Europe against epidemics. At the present time there are quarantine institutions on border health protection at the seaports and airports, including two bacteriological laboratories under the general directorate of the border health guard.

Special institutions for chronic disease treatment and for aged persons are not available; there are 13 poor houses where medical care is provided in certain instances.

According to official 1959 WHO data, there were 290 general hospitals in the country with 34,806 beds, that is 1.3 beds per 1,000 population. In addition there are three psychiatric hospitals with 4,250 beds, 29 maternity hospitals with 2,629 beds, 6 anti-trachoma hospitals with 150 beds and 257 health centers with 3,402 beds. Thus, the total number of hospital beds was 45,327 or 1.67 beds per 1,000 population.

Medical care in the hospitals must be paid for and is not easily accessible to the workers; only in rare instances do the indigent receive free medical care. Outpatient care in Turkey is in the hands of doctors in private practice. Only in the anti-venereal and anti-trachoma institutions is free help provided to the indigent.

According to official data there are in the country 33 dispensaries and 160 syphilis control stations, 50 dispensaries and 229 anti-trachoma stations, the majority of which are located in rural areas. The health centers primarily provide treatment and are located primarily in the cities.

MEDICAL PERSONNEL

In 1959 in Turkey there were 7,826 physicians in state and private hospitals; there was one doctor per 3,450 persons. In addition there are 1,188 dentists, 1,387 pharmacists, 2,848 nurses, 2,827 midwives and 3,341 aides and other assistant medical personnel in the hospitals and laboratories. Of the total number of midwives 2,627 are located in the rural areas.

In Turkey doctors are trained at three medical schools; the oldest and the largest of these is located in Istanbul. In 1945 a school of medicine was established at the University of Ankara and in 1955 at the University of Izmir. From 1923 to 1955 the University in Istanbul graduated 7,706 physicians and in the ten years following 1945 more than 1,240 doctors. There is a school of hygiene in Ankara offering a variety of advanced courses. There is also a dental and a pharmaceutical school at the University in Istanbul. The training of nurses presents a serious problem. In 1959-1960 the seven nursing schools graduated only 131 nurses. The course has been extended from three to four years but for persons earmarked for work in the rural areas it only lasts 18 months.

The lack of medical personnel is felt sharply in Turkey. The state hospitals and health centers constantly need doctors for their staffs. There is a shortage of health inspectors, malariologists, phthisiologists and other specialists. There is also a significant shortage in secondary medical personnel, primarily of sanitation workers, nurses and midwives.

The financial position of the doctors, according to data from the Turkish press is unsatisfactory; the fees are low as a result of a lack of patients who can pay. General practitioners earn 1/10th of what engineers do. The extremely low wages force doctors to move to large cities or to go abroad or to change their specialties. According to testimony by the former Minister of Public Health in Turkey Uner, of the 12,000 graduate physicians 2,000 work abroad and 3,000 work in other specialties. Of the 7,000 working in their fields, over 3,000 are concentrated in Istanbul. At a time when there are 1,628 doctors to serve the 51 vilayet of Anatolia and certain regions of Turkey, there is one doctor per 25,000 to 30,000 inhabitants.²

The doctors in Turkey are united into a reactionary Turkish medical association that violently opposes any attempts at the democratization of public health.

International assistance to Turkey in 1961 amounted to 999,850 US dollars. (Table 2).

Table 2.

Allocation	Regular WHO budget	UN Technical Assistance	Other non- budget allocations
Malaria control	--	5,060	800,000
Tuberculosis control	--	3,600	38,000
Virus diseases control	--	--	32,000
Leprosy control	--	710	--
Nursing	19,510	--	--
Education	18,100		
Maternal and child welfare	--	16,870	76,000
Total	37,610	26,240	946,000

BUDGET

In 1960 for public health in Turkey 474 million Turkish lira were expended, that is 6.6% of the state budget. In addition 4,123,517 lira were provided from local resources. Expenditures of state funds for public health amounted to 17.2 lira per person (about 1.1 ruble).

¹Precise data on malaria and tuberculosis morbidity and mortality are not available.

²Izvestiya (News), 24 August 1962.

PHILIPPINES

The Philippines is a republic located in southeast Asia on the islands of the Philippine Archipelago. According to the constitution adopted in 1935 legislative power is held by a congress consisting of a senate and a house of representatives. Executive power belongs to the president who has broad authority.

The territory of the country is 299,400 square kilometers. The population (according to the 1960 census) is 27.5 million. Average population density is 91.8 persons per square kilometer. The capital is Manila with a 1.2 million population. The characteristics of the demographic process for recent years are presented in the table.

Natural population shifts

Demographic aspects	1954	1955	1956	1957	1958	1959	1960
	per 1,000 population						
Births	33.2	34.1	34.7	29.6	29.4	30.0	29.2
Deaths	10.3	9.9	10.1	9.5	9.4	7.3	7.7
Natural increase	22.9	24.2	24.6	20.1	20.0	22.7	21.5
Infant mortality (per 1,000 live births)	94.2	84.3	83.9	93.0	80.0	72.4	73.1

The registration of the reports on the public status is incomplete and apparently only refers to large cities, but even these far from complete figures are evidence of the high infant mortality.

A high morbidity from contagious diseases is noted in the Philippines; however, morbidity registration is not very complete.

According to the available (incomplete) data, in 1948-1949 over 300 cases of smallpox were registered in the Philippines. In the 1930's substantial cholera morbidity was recorded (in 1933 there were 2,542 cases).

At the end of 1961 there was an epidemic of paracholera (from September to December of 1961 6,061 cases of paracholera of which 771 were fatal were registered).

Approximately 10% of the population suffers from tuberculosis. In 1960 106,163 new cases of tuberculosis were registered. Tuberculosis is one of the main causes of death in the Philippines. In 1960 there were 25,592 deaths from tuberculosis. Of the other contagious diseases the most prevalent are frambesia (in 1957 there were 49,000 cases recorded), malaria with 55,172 cases in 1960, dysentery (in 1960 there were 13,894 cases), enteric fever and paratyphoid (in 1960 375 cases).

Children's contagious diseases are also very prevalent, in 1960 23,230 cases of whooping cough and 20,255 cases of measles were recorded.

From 1955 to 1958, as a result of examinations carried out by UNICEF personnel, 2,220 new cases of leprosy were uncovered.

The struggle against contagious diseases is not being handled properly and primarily boils down to the giving (with WHO assistance) of preventive inoculations.

In recent years BCG inoculations were given to 3.5 million persons. In 1958 4,216,381 vaccinations and revaccinations against smallpox were given. In the 1956-1957 fiscal year 645,048 homes were treated with insecticides for antimalaria purposes.

In recent years the government has worked out a program for tuberculosis control, including the establishment of anti-tuberculosis hospitals. The implementation of an experimental project for tuberculosis control has been begun with the help of WHO in the province of Illolos-Norte.

In 1958 mobile UNICEF units began ambulatory treatment of leprosy patients. One of the serious public health problems in the Philippines is an insufficient diet; particularly serious effects of this are felt by the women and children, and it is also one of the causes of high infant mortality. In the Philippines as a result of the meager ration of proteins, fats, vitamins and other ingredients needed by the human organism diseases that are linked with the disturbance of the diet -- anemia, avitaminosis, beri beri, helmenthic invasions and others -- are very prevalent.

In order to improve the diet, the Children's Fund of the

United Nations (UNICEF) has in recent years supplied the country with powdered milk which is to be handed out to pregnant women, nursing mothers and children.

At many of the mills in the country, in accordance with the law adopted in 1954, a process for the enrichment of rice with vitamins, which may have a certain effect on decreasing beriberi morbidity is carried out.

It is clear, however, that all of these are only partial measures which cannot lead to the solution of the cardinal problem of supplying food.

Public health administration is implemented by the Department of Public Health, headed by a secretary on public health matters with the rank of a minister.

The office of the secretary on public health matters includes the following departments: administrative, tuberculosis, health education and information and nursing service.

The Department of Public Health includes three offices: public health, quarantine and hospitals. Each office is headed by a director. The department of public health guides the work of the food institute, the public health laboratory and the department of urban public health.

On a province level public health problems are administered by a provincial public health inspector.

In the municipalities public health management is administered by a public health municipal inspector who is responsible to the provincial public health inspector.

Work on maternal and child welfare is carried out by rural public health stations, as well as by special infant centers established in the country. There is a total of 508 such centers. They are partially subsidized by the government and often exist on voluntary contributions.

Across the republic the work of these centers is coordinated by the child welfare department that is under the office on hospitals. The functions of the infant centers include prenatal and postnatal medical service to women, assistance during childbirth and midwife care at home. The centers also provide health education to the parents on the problems of caring for children and organize courses for the training of assistant personnel.

Since the scale of work of these maternal and child welfare institutions is very limited, primarily as a result of a shortage of personnel, the majority of the women and children in the population are, for practical purposes, deprived of qualified medical assistance. The school hygiene

service in the Philippines is part of the department of medical and dental care of the department of education.

Industrial public health is administered by one of the departments in the public health bureau. Basically, this department is occupied with research work in the area of industrial hygiene and with health education work at enterprises.

In recent years several seminars on industrial hygiene for medical personnel -- doctors, dentists and nurses working at industrial enterprises were carried out on the initiative of this department.

The organization of rural public health has been begun only in recent years in the country. In 1954 a law on rural public health was adopted in accordance with which the establishment of 1,300 rural public health stations and 262 dental stations is envisaged. By 1957 1,084 such stations were already established.

The level of health in the country is not high. Water mains and sewerage are available only to a small percentage of the urban population. Sewage disposal is carried out only in the capital and in the principal cities.

Only one third of the population had a high quality water source in 1956.

Since 1954 a health education program has been implemented. The administration of the health education work has been placed with the department of health education within the Department of Public Health.

In 1960 in the Philippines there was a total of 103 state hospitals with 13,650 beds (0.5 beds per 1,000 population), including 98 general hospitals with 6,600 beds, one psychiatric hospital, one hospital for contagious diseases with 900 beds, one orthopedic hospital with 450 beds and others.

In 1960 outpatient care to the population was provided by 479 public health centers and by physicians in private practice.

In the implementation of the tuberculosis control program from 1954 to 1956 several outpatient dispensaries for tuberculosis patients were established and new tuberculosis wards were opened in the general hospitals.

Great difficulties are met during the hospitalization of mentally ill, since the existing psychiatric hospitals with approximately 4,000 beds are constantly filled. The number of mental patients in the country reaches 50,000 persons.

In 1960 there were 3,949 physicians (one doctor per 7,030

inhabitants), 698 dentists, 6861 nurses and 1,821 midwives in the country.

A great shortage of medical specialists and particularly of psychiatrists is felt.

There is also a shortage of nurses, midwives and other secondary medical personnel.

Physicians are trained at the medical school of the University of Manila and at 5 medical colleges. All of these institutions graduate up to 1,350 doctors annually. The training course is 5 years. There are also 5 regional training centers (in Manila, Cebu, Iloilo, Davao and Bagio), where nurses, midwives, health inspectors and other assistant personnel are trained.

At the Manila Institute of Hygiene courses are provided for advanced work in public health for doctors, dentists, sanitation engineers and health education workers. Persons completing the course receive a masters degree in public health.

The expenditures by the government of the Philippines for public health amounted in 1960 to 6.1% of all budget allocations or approximately 1 dollar per inhabitant.

In 1961 the assistance provided to the Philippines by WHO and the UN in the carrying out of various measures for public health organization and the improvement of the health conditions amounted to 440,317 US dollars or 0.016 dollars per inhabitant.

CEYLON

Ceylon is a state located on the Indian Ocean. It covers an area of 65,610 square kilometers. It is a part of the British Commonwealth of Nations.

The highest legislative body is parliament which consists of two houses: the upper -- senate (until March of 1960 it had 15 elected members and 15 members appointed by the governor-general) -- and the lower -- house of representatives (until March of 1960 there were 95 elected members and 6 members appointed by the governor-general).

Since July of 1960 the prime minister has been S. Bandaranaike.

According to 1961 United Nations estimates the population of Ceylon was 10,176,000 of whom 70% were Senegalese, 23% were Tamil and there were 6,508 Europeans. Population density is 156 persons per square kilometer.

The island is divided into 9 provinces and 21 okrugs. The capital of Ceylon is the city of Colombo. Fifteen percent of the population lives in cities. The demographic processes are characterized by the following indices (Table 1).

The age-long rule of the colonizers left behind a heavy heritage for the economy of Ceylon.

The population of Ceylon suffers from diseases caused by starvation, malaria, gastrointestinal diseases, leprosy, tuberculosis and venereal diseases. There is no precise morbidity registration. Tables 2, 3 and 4 present morbidity and mortality according to data from hospital and outpatient registration.

However, it is difficult to get a true picture of morbidity from these data since the number of hospitals and doctors is clearly insufficient to guarantee morbidity registration, and they more than likely reflect the urban population's use of medical assistance.

Table 1.

Natural population shifts

Demographic aspects	1951	1952	1953	1954	1955	1956	1957	1958	1959
Births ¹	40.5	39.5	39.4	36.2	37.9	36.4	36.5	35.8	38.2
Deaths ¹	12.9	12.0	10.9	10.4	11.0	9.8	10.1	9.7	9.1
Natural increase ¹	27.6	27.5	28.5	25.8	26.9	26.6	26.4	26.1	29.1
Infant mortality ²	82.0	78.0	72.0	71.6	66.5	67.5	67.5	64.5	58.0

¹Per 1,000 population²Per 1,000 live births

Tuberculosis treatment is provided in 7 tuberculosis institutions with 1,995 beds (1959). In addition to this there are 1,425 beds for tuberculosis patients in other hospitals.

Public health agencies in Ceylon report that in the country great work with malaria control is being carried out, thanks to which the mortality from this disease has been substantially decreased. While in 1957 there were 2,750,000 cases of malaria, there were only 422 cases in 1960. Significant success has been achieved in the struggle against filariatosis (data on the number of cases is not available). There has not been a single case of plague since 1938, and since 1953 not one case of cholera. In 1957 and 1958 there were two small outbreaks of smallpox.

In 1960 there were 411 hospitals with 30,581 beds or 3.1 beds per 1,000 population in Ceylon. These hospitals treated 1.4 million patients during 1960. Outpatient assistance is provided by 616 medical stations.

The state public health service in Ceylon was established in 1947.

The Ministry of Public Health is headed by a minister. The ministry organization includes a department of public health headed by a director who has three deputies: 1) for treatment, 2) for preventive measures, 3) for laboratories.

In 1954 15 health okrugs were established, each of which is responsible to a chief inspector in the health service. This office in its turn is divided into regions (4 or more) with a population of approximately 50,000 persons.

Table 2.

Morbidity and mortality by causes

Year	Disease							
	Typhoid	Para-typhoid	Enteric fever	Dysentery	Malaria	Syphilis	Ery-sipelas	Leprosy
1953								
Morbidity	2,460	862	--	1,607	1,477	1,933	915	1,142
Mortality	403	--	--	688	63	--	6	28
1954								
Morbidity	6,742	503	--	2,282	1,395	1,174	789	1,326
Mortality	362	9	--	631	63	--	6	54
1955								
Morbidity	4,820	388	--	2,834	3,965	1,426	1,602	1,219
Mortality	313	8	--	730	268	--	4	18
1957								
Morbidity	--	--	--	2,432	6,999	--	--	358
Mortality	--	--	--	754	--	--	--	--
1958								
Morbidity	12	--	2,295	2,019	1,037	--	--	--
Mortality	3	--	214	751	105	--	--	21
End of 1959								
Morbidity	--	--	--	--	--	--	--	3,796
Mortality	--	--	--	--	--	--	--	--

¹ Out of the total number of lepers 339 new cases of the disease were found (end 1959).

Along with modern medicine the Ministry of Public Health pays a great deal of attention to the development of the Indian native medicine -- aurveda. In 1958 a special department was organized for the development of aurveda, headed by a commissioner. The Indian expert on aurveda medicine Pandit Shev Sharma arrived in Ceylon from India at the invitation of the government of Ceylon in connection with the reorganization of the college and hospital of native medicine and with the founding of the pharmaceutical factory for the manufacture of native medicine.

Table 3.

Mortality resulting from all contagious and parasitic diseases

Year	Total figure	Per 100,000 inhabitants
1951	13,780	178.0
1952	12,071	152.1
1953	9,903	121.4
1954	9,506	113.4
1955	9,594	111.7
1956	--	92.1
1957	--	96.0
1958	8,183	87.2

Table 4.

Tuberculosis mortality

Year	Total figure	Per 100,000 inhabitants
1952	3,046	38.4
1953	2,410	29.6
1954	1,976	23.6
1955	1,874	21.8
1956	1,698	19.0
1957	1,880	20.5
1958	1,899	20.2

Until 1954 work in maternal and child welfare was administered by the division of health services within the department of public health. Following the reorganization of the department, the maternal and child welfare center was eliminated.

In 1960 the 895 maternal and child welfare institutions were visited by 400,000 pregnant women. On the average, each mother made 1.2 visits. Approximately 70% of the mothers were assisted by physicians and midwives during birth. However, in 1959 maternal morbidity amounted to 3.9 per 1,000 live births.

Medical service for agricultural workers was begun recently. According to the present situation, all rubber, tea and cocoa plantations with an area greater than 10 acres must organize medical service.

In 1955 there were 2,335 farms with 1,014,897 workers that came under this category. They had two staff doctors and 45 non-staff inspectors and had the services of 66 hospitals and 116 dispensaries serving both farm personnel and the local population. In addition the plantations maintained 94 hospitals and 684 dispensaries which served the workers and employees on the plantations exclusively.

The department of social assistance provides help to the population through the municipalities of Colombo, Kandy and Galle and in the regions through the state regional agents.

Allowances are provided to the following categories of needy:

1) patients, old men and cripples and their dependents; 2) disabled widows with young children; 3) disabled single women and women whose husbands are not able to work as a result of illness or arrest; 4) orphans and homeless children up to age 16.

In case of illness, catastrophy, fire, etc. funds are handed out to the needy for 6 months and in an amount not greater than 10 rupees a month per individual and 20 rupees a month per family.

In case of natural disaster which deprives a person of his home or wages he has the right to a extraordinary allowance not exceeding 300 rupees.

The department of social assistance for 1957-1958 estimated 11,400,000 rupees for monthly allowances and 200,000 rupees for natural disaster allowances. During 1958-1959 the corresponding figures of 12,540,000 and 250,000 rupees were envisaged.

The Ministry of Public Health in Ceylon gives consideration to environmental sanitation and health education of the population. Measures to improve water supply and sanitation are being implemented. A sanitation service has been established. Orders have been issued for the obligatory construction of lavatories and cesspools.

The Ministry of Public Health together with the Ministry of Education has organized health education courses for teachers. The inclusion of social hygiene courses in the school programs has been proposed. Medical service to the urban population is provided primarily by physicians in private practice (modern and native Indian medicine), hospital care is provided by state and local (municipal) hospitals.

The establishment of old age homes has been initiated in order to free 10% of the beds in state hospitals.

According to statistical data for 1958 there were the following number of medical workers in Ceylon:

Doctors.....	1,997
Dentists.....	162
Midwives.....	2,410
Graduate nurses.....	1,942
Nurses aides.....	41
Assistants.....	954

There was one doctor for every 4,700 inhabitants in 1958.

In Ceylon there are several medical-educational institutions, including the school of medicine at the University of Ceylon and several nursing schools in the cities of Colombo, Kandy and Galle. Midwives are trained at schools in four major hospitals. In 1958 in Maharagam a school for stomatology nurses, which will graduate 25 specialists annually, was opened. There are also 6 month course for health inspectors in Kalutar.

In 1958 a report on the plans for the development of public health in Ceylon was published by the minister of public health. It points out that in the future consideration will be given to public health and preventive measures. The basic task is environmental sanitation, tuberculosis control and the liquidation of malaria. A great deal of attention is given to the health education of the population.

Expenditures for public health grew by 8.7% from 1957 to 1960. While in 1957 the expenditures amounted to 11.74 rupees per inhabitant, in 1960 this expenditure amounted to 14.59 rupees.

Assistance by international organizations for public health amounted to 140,190 dollars in 1961 (Table 5).

Table 5.

Assistance from international organizations to Ceylon in 1961

Allocation	Regular WHO budget	UN Technical Assistance Program	Other non- budget allocations
Tuberculosis control	--	--	8,000
Venereal disease and treptonematosi control	1,800	--	--
Endemo-epidemic diseases control	5,880	--	--
Public health organization	2,400	8,600	--
Public health statistics	--	13,170	--
Nursing	21,950	--	--
Social and industrial public health	18,360	--	--
Maternal and child welfare	--	26,330	20,000
Environmental sanitation	--	1,320	--
Education	--	4,540	--
Total	58,230	53,960	28,000

JAPAN

Japan is located in the northwestern part of the Pacific Ocean on four large islands (Honshu, Shikoku, Kyushu and Hokkaido) and on numerous small islands. Japan is a constitutional monarchy, headed by an emperor. The highest legislative organ is the Diet composed of a House of Representatives and a House of Councillors. Executive power is vested in the cabinet of ministers headed by a prime minister.

The territory of the country is 372,100 square kilometers. The population (as of January 1962) was 94.5 million. Average population density is 255 persons per square kilometer. The southern part of the country, primarily the coastal regions, is the most populated. In the north (island of Hokkaido) average population density does not exceed 60 to 70 persons per square kilometer. Ninety-nine percent of the population is Japanese. For demographic processes in recent years see Table 1.

The data presented in the table show that a sharp reduction in births has taken place in post-war Japan; simultaneously a reduction in mortality and in infant mortality is observed. The basic reason for the drop in birth rates lies in socio-economic factors as well as in the policy of planning and restricting families, carried out in recent years by the Japanese government. In Japan there are over one million abortions annually.

The average life expectancy in 1960 for men was 65.4 and for women 70.3.

Following World War II there were epidemics of several particularly dangerous infectious diseases. In 1946 1,245 cases of cholera (including 560 cases which were fatal), 17,956 cases of smallpox (of which 2,029 were fatal) and 32,366 cases of spotted fever (of which 3,351 were fatal) were recorded. In the future, thanks to the measures that have been adopted (vaccination and quarantine at seaports and at airports, etc.), these infectious diseases will be basically eliminated and in recent years only individual cases of smallpox and spotted fever have been registered.

Table 1.

Natural population shifts

Year	Population figures	Births	Deaths	Natural increase	Infant mortality per 1,000 live births
		per 1,000 population			
1950	83,199,000	28.1	10.9	17.2	60.1
1951	84,573,000	25.3	9.9	15.4	57.5
1952	85,852,000	23.4	8.9	14.5	49.4
1953	87,033,000	21.5	8.9	12.6	48.9
1954	88,293,000	20.1	8.2	11.9	44.6
1955	89,274,000	19.4	7.8	11.6	39.6
1956	90,253,000	18.4	8.0	10.4	40.6
1957	91,085,000	17.2	8.3	8.9	40.0
1958	92,007,000	18.0	7.4	10.6	34.5
1959	92,971,000	17.5	7.4	10.1	33.7
1960	93,418,000	17.2	7.6	9.6	30.7
1961	94,285,000	16.9	7.4	9.5	28.6

However, the morbidity indices remain relatively high for a number of other contagious diseases. Trachoma is a particularly prevalent disease in the rural areas. In 1960 trachoma morbidity amounted to 48.4 per 100,000 population.

A large rise in prostitution in the early years after World War II brought with it an increase in the morbidity from venereal diseases. In 1948 the morbidity coefficient for venereal diseases reached 592.3 per 100,000 population; syphilis morbidity was 270.8 and that for gonorrhea was 274.7 per 100,000 population.

In 1948 a law was adopted on the control of venereal diseases, envisaging the detection of infected persons and contacts, the systematic examinations of prostitutes and the introduction of compulsory treatment that led to a certain decrease in venereal disease morbidity.

In April of 1957 a law was adopted on the closing of public houses and the placement of the 200,000 registered prostitutes in jobs.

In 1961 the syphilis morbidity coefficient was 7.8 and that for gonorrhea was 6.7 per 100,000 population.

Tuberculosis is a great social tragedy for Japan. Despite the reduction in tuberculosis mortality (from 110.3 per 100,000 population

in 1951 to 41.1 in 1960) morbidity remains very high in the country. In 1961 the tuberculosis morbidity coefficient was 456 per 100,000 population.

According to data from the Ministry of Public Health there are over three million tuberculosis patients requiring treatment in the country.

In 1955 certain changes were introduced into the existing legislation on tuberculosis control. According to the new law medical examinations are obligatory for the entire population over 6 years of age. In 1960 38,838,000 persons or more than one third of the population were examined; also 6,346,000 persons received BCG inoculations.

Despite the fact that allocations for tuberculosis control were somewhat increased in recent years the amount provided is obviously insufficient. Medical care is not within the reach of the majority of tuberculosis patients. According to available data a little over 20% of tuberculosis patients make use of the treatments. The number of beds for tuberculosis patients is insufficient (in 1960 there was a total of 252,208 beds, that is 2.5 beds per 1,000 population).

Many other contagious diseases are also very prevalent in Japan: dysentery, diphtheria, enteric fever and paratyphoid, epidemic meningitis, polio, Japanese encephalitis and others (Table 2).

As can be seen from Table 2, morbidity for the majority of the contagious diseases indicated has been significantly reduced in recent years; this is primarily due to the use of new and effective medicines (antibiotics, sulfanilamides and others) and due to the significant number of preventive inoculations. In accordance with existing legislation inoculations against smallpox, diphtheria, whooping cough and certain other diseases are obligatory.

In 1960 over 33 million persons received preventive inoculations.

The comparatively high polio morbidity is explained primarily by the fact that Japan began the mass immunization of infants, for which vaccine was purchased from the USSR and Canada, very late (only in 1960). The wide prevalence of dysentery, admitted by the Ministry of Public Health and Social Insurance in Japan, is caused primarily by the use of poor quality drinking water and food. In 1960 only 42% of the population utilized safe sources of water, and the system of sewers was used by only 5,400,000 persons. Health supervision of food products is also insufficient, as a result of which there is a large number of food poisonings annually. In 1960 37,253 persons suffered seriously from food poisoning (primarily fish and fish products), of these 218 died.

In Japan the problem of nutrition in general is very serious since the caloric allowance of the Japanese is very low. In 1960 on the average only 2,096 calories per inhabitant were used. The Japanese

Table 2.

Morbidity rate for certain communicable diseases
during 1945-1946, 1950-1961 (per 100,000 population)

1	2	3	4	5	6	7	8	9	10	11
1945	133,2	80,0	13,9	3,3	118,5	6,1	—	—	—	—
1946	115,8	58,6	12,0	2,9	65,5	1,9	0,3	—	—	—
1950	59,8	5,9	2,1	6,2	15,2	1,4	6,2	—	—	—
1951	110,0	4,6	1,5	6,0	12,7	1,3	2,6	—	—	—
1952	130,0	3,4	1,0	7,2	9,8	1,1	4,1	66,9	66,2	2,7
1953	124,1	2,9	1,3	14,5	11,0	1,0	2,0	146,8	52,0	2,6
1954	111,9	2,9	0,9	22,5	11,9	0,8	2,0	81,1	75,9	2,2
1955	90,3	2,2	0,7	15,1	17,4	0,7	4,1	67,5	15,8	1,5
1956	93,6	2,4	0,6	13,5	20,4	0,7	5,0	75,5	20,5	1,7
1957	82,1	2,3	0,4	15,9	16,9	0,8	2,0	72,3	22,1	1,9
1958	88,7	2,1	1,2	14,9	17,0	0,7	4,2	31,9	32,6	2,8
1959	92,2	1,7	0,4	10,6	19,3	0,6	2,1	81,1	10,5	3,1
1960	100,6	1,7	0,3	9,4	16,0	0,6	1,7	51,8	4,2	6,0
1961	97,1	1,1	0,2	6,6	10,4	0,5	2,2	41,6	5,5	2,6

1. Year
2. Dysentery
3. Enteric fever
4. Paratyphoid
5. Scarlet fever
6. Diphtheria
7. Epidemic meningitis
8. Japanese encephalitis
9. Measles
10. Whooping cough
11. Polio

diet also is insufficient in proteins and fats (in 1960 per individual only 24.7 grams of animal proteins and fats were used on the average).

Under pressure from the masses the government was forced to adopt certain measures to improve the food situation. In particular, in recent years vitamin enriched rice, as well as other products, has been produced in Japan; breakfast has been provided at reduced rates for students in elementary schools (600 calories and 25 grams of protein a day).

In recent years, following cases of importation of poor quality produce from the USA to Japan, health control has been extended to food stuffs brought in from abroad.

In 1960 approximately 500,000 tons of imported products were rejected as unfit for use as food.

Marked changes have been noted in the mortality structure in Japan during recent years, since contagious diseases no longer play their former leading role in the number of causes for death.

The so-called degenerative diseases -- cancer, vascular lesions of the central nervous system and heart diseases -- fatalities from which increase with every year are more and more becoming the primary causes of death in recent years.

In Japan in 1961 the mortality coefficient from vascular lesions of the central nervous system amounted to 165.1 per 100,000 population (as against 136.1 in 1955), from malignant neoformations 102.2 (as against 87.1 in 1955) and from heart disease 71.5 (as against 60.9 in 1955).

It should be noted, however, that, in general, mortality from the so-called degenerative diseases is significantly lower in Japan than in the economically developed countries of Europe, which is apparently explained by the regional pathology peculiarities (climatic conditions, specific character of the rations, etc.).

As a result of the difficult living conditions there is an increase in narcomania, suicides and mental diseases among the Japanese people.

According to data from the Ministry of Public Health and Social Insurance of Japan 1.48% of the population (approximately 1,300,000 persons) suffered from mental diseases in 1962.

Hospitalization of mental patients has been extremely complicated as a result of the great shortage of psychiatric beds. In 1961 there was a total of 95,493 psychiatric beds (of these only 18% were state owned). Occupancy of psychiatric beds exceeded 107%.

At the present time there are over 200,000 drug addicts.

According to suicide indices, in recent years Japan is one of the first countries in the world. The greatest number of suicides was recorded in 1958 (25.7 per 100,000 population).

The diseases that appeared as a result of the atomic bombs dropped on the Japanese cities of Hiroshima and Nagasaki by the American airforce in 1945 pose a very serious problem for the population of Japan.

According to latest data, there are in Japan approximately 230,000 persons suffering from various types of diseases (from gum hemorrhage to leukemia) which are a result of atomic radiation.

Mortality among these patients is very high. In 1960 in the hospitals of Hiroshima and Nagasaki alone 84 persons died from leukemia and liver diseases (a consequence of atomic radiation).

PUBLIC HEALTH ORGANIZATION

The Ministry of Public Health and Social Insurance was established in 1938. A minister with a deputy and an assistant is at the head of the ministry. The ministry is composed of a secretariat, consisting of a number of departments (personnel, finances, international relations and others) and nine administrations: 1. public health with departments of planning, nutrition, health centers, tuberculosis, contagious disease control, mental hygiene and quarantine; 2. medical service which deals with certain problems of medical work, this administration includes the following departments: national hospitals, sanatoria, nursing care, dental care and others; 3. environmental sanitation including the following sections: food hygiene, veterinary health, water supply networks and others; 4. on the pharmaceutical and medical industry responsible for the standardization, testing and control of pharmaceuticals, cosmetics and biological supplies; 5. infant, occupied with problems of maternal and child welfare; 6. social aid which takes care of problems of social security, vocational rehabilitation, etc.; 7. social insurance; 8. pension (established in 1959); 9. on matters of repatriated persons.

A number of educational and scientific research institutes, in particular the institute of public health, the institute of demography, the institute on nutrition and others are administered by the Ministry of Public Health and Social Welfare. Also all state hospitals, laboratories and institutions for vocational rehabilitation are under the direct control of the ministry. There are public health departments in each prefecture and in all larger municipalities.

The entire country is divided into health regions which do not coincide with the administrative divisions. Each of these regions

maintains health centers to treat not less than 100,000 population. Each health center is headed by a doctor. At the end of 1961 there were 799 functioning health centers, the personnel of which (doctors, nurses and others) exceeded 25,000 persons in Japan. Japanese health centers do not deal with treatment but are administrative and sanitation and prevention institutions whose functions include work in health education; demographic and health statistics; food stuffs hygiene; environmental sanitation; laboratory research; the implementation of measures for control of tuberculosis, venereal diseases and other contagious diseases; patronage work; and maternal and child welfare. Health centers are financed by local government agencies and by the government.

Maternal and child welfare in Japan is primarily carried out by local health centers that provide consultations. In 1960 consultations were provided to more than 760,000 mothers and almost 4,133,000 children. In 1960 nurses made approximately 1,222,000 home visits to mothers and children.

The majority of births take place at home and often without medical assistance, since there is a shortage of midwives. In 1960 there were 52,000 midwives in the country (5.6 per 10,000 population). Data on the number of maternity hospitals is not available.

The position of working women is difficult in Japan, since they are paid 42% less than men on the average.

Existing legislation on job protection for working women are violated in many enterprises of the country. In particular maternity leave envisaged by law for pregnant women is not always provided; many employers often release women who are getting married; a number of enterprises do not pay for maternity leave.

Medical service for industrial workers is unsatisfactory. The problems of industrial public health are under the administration of the Ministry of Labor.

Supervision of the health conditions in enterprises and work safety are placed on factory inspectors. In 1960 there were 2,362 inspectors working in 268,853 enterprises (17% of all enterprises). Doctors and medical stations are available only at the large enterprises.

The difficult conditions and the expanded intensification of work lead to massive industrial injuries and to a great prevalence of occupational diseases.

In 1960 the number of workers who died or were injured as a result of industrial accidents reached 790,000.

In 1960 mortality from all injuries amounted to 41.5 per 100,000 population. (as against 37.3 in 1955).

In the majority of the country's enterprises the employers are intolerant of workers who have had accidents. Thus, for instance, the workers at the ship building wharf in the city of Maytsuru, following two registrations in the medical service book receive a warning and following the third registration are transferred to a lower paying job. As a result, many workers hide the accidents and do not turn to the doctors who serve at the enterprises.

Occupational disease morbidity among Japanese workers is significant. In 1956 of 6.8 million workers examined 832,000 suffered from occupational diseases. In addition to tuberculosis which is a mass disease, silicosis is very prevalent and approximately 0.5 million persons suffer from it.

The law on silicosis control (1955) only provides for medical examinations. However, the state takes upon itself the expenditures for the treatment of the patient for not longer than two years.

Social insurance in Japan is not united in a single system. Several different types of state insurance exist in the country (obligatory and voluntary) regulated by a number of special laws which the Japanese government was forced to adopt following pressure from the workers.

The administration of social insurance is completely in the hands of the government and of the employers. Social insurance funds are composed primarily of payments by the insured persons. Depending upon the profession and sex of the worker insured from 6 to 10% of the earnings of the workers and employees are placed monthly in the social insurance fund.

As in other capitalist countries, in Japan the granting of allowances and pensions from social insurance is a complicated matter since existing legislation in a number of stipulations presents the insured person with a number of additional demands, for instance, a specific period of work at the enterprise, a long period of having been insured, the aspect of a "waiting period" and others.

The main types of state social insurance are the following:
1) insurance for workers and employees in enterprises; 2) health insurance for seamen and day laborers; 3) national health insurance (insurance in case of illness for those population groups not covered by the first two types of social insurance).

The most prevalent type of insurance in post-war Japan is national health insurance. In 1960 the number insured under this plan exceeded 46 million persons (49% of the population). All persons using this type of insurance are to pay not more than 50% of the cost of the medical service.

In 1959 a new law was adopted in Japan on pensions, according

to which the worker on reaching age 65 is given the right to receive a small pension (in the amount of 1,000 yen a month).¹ This new "pension system" is extremely limited since it does not cover peasants, day laborers, invalids and those out of work. In addition to that every Japanese included in this system makes large monthly contributions (up to 150 yen) beginning with age 20.

HOSPITALS

In 1961 there were 6,229 hospitals in the country with 716,372 beds (7.6 beds per 1,000 population). By specialties the hospitals and beds are distributed in the following manner: general hospitals 5,060 with 506,714 beds, 53 hospitals for contagious diseases with 4,310 beds, 543 psychiatric hospitals with 81,960 beds, 559 tuberculosis hospitals and sanatoria with 110,128 beds and 14 hospitals for lepers with 14,260 beds.

It should be pointed out that in Japan all medical institutions that have at least 20 beds are considered hospitals.

The average hospital bed occupancy index in the country in 1961 as a whole was approximately 81%.

The majority of hospitals in Japan belong to local public (voluntary, charitable and other) organizations or are privately owned. There are very few state hospitals (according to 1957 data they represented only 12% of all hospitals).

Basically outpatient care is provided by doctors in private practice, in so-called polyclinics that in the majority of cases are just normal private physicians' offices, and where, as a rule, only one doctor is in attendance. In 1961 there were 59,008 general polyclinics in the country. There were 27,020 dental polyclinics in 1961 and approximately 99% of these were regular private dental offices. Outpatient care by private doctors runs very high. There are very few state polyclinics in Japan. They are located only in some large health centers. In these polyclinics, on the basis of existing legislation, free medical aid is provided to indigent patients who have tuberculosis, to mental patients and to certain others. dispensary departments or polyclinics are also available at some other major hospitals.

MEDICAL PERSONNEL

In 1960 there were in Japan: 103,000 doctors (11.0 per 10,000 population), 33,000 dentists, 60,000 pharmacists, 13,000 public health nurses, 52,000 midwives and 186,000 hospital nurses. A significant

percentage of the doctors do not work in hospitals. In 1960 a total of only 36,000 doctors worked in the hospitals and polyclinics.

The distribution of doctors across the country is extremely unequal. The majority of doctors are concentrated in the cities. As a rule there is a shortage of doctors in the rural regions. A great shortage is also felt in the secondary medical personnel -- public health nurses, midwives and others.

Doctors are trained at 46 higher medical institutions which on the average graduate 3,000 doctors annually. The course takes 6 years.

There are approximately 280 specialized educational institutions in the country for the training of secondary medical personnel, graduating approximately 1,040 public health nurses, 515 midwives and 5,900 hospital nurses annually.

Public health service workers are trained at the Institute of Public Health in Tokyo which is also an institute for advanced studies.

PUBLIC HEALTH BUDGET

The public health budget in Japan is insufficient. In 1962 the total expenditures by the government for public health and social security amounted to 272,329 million yen, that is less than 2,900 yen or 8.06 dollars a year per inhabitant.

¹1,000 yen according to Gosbank rates is worth 2 rubles 51 kopecks.

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