



Journal of Pediatrics

A Quarterly Publication

VOLUME: 3

JULY 1961

NUMBER: 3

ARTICLES

INFANT MORTALITY IN TURKISH VILLAGES

Ceyhun Atuf Kansu, M. D.*

The researcher interested in child health and child mortality in Turkey must take into account the situation existing in villages and small towns throughout the country, as contrasted with large cities, since some 87 per cent of all Turkish children live either in villages or under similar conditions in small towns. In this paper I shall discuss the social aspects of infant mortality in the light of many years of experience in the villages of central Anatolia around the town of Turhal.

Any study of infant mortality in the villages must begin with the realities of village life and must take into consideration the peasant's understanding of the world, his way of earning a living, the peasant mother, and nature itself. The village infant is left more to the care of nature than to the care of his family or community. He is a true child of nature and natural selection - the law of nature - governs his life and determines whether he lives or dies. Natural factors such as the change of seasons, floods and droughts, all have a direct effect on the welfare of the child. The general malnutrition and poverty of the people makes natural selection inevitable and reduces the surplus population by means of hunger. Those who can adjust to the little that nature provides survive, those who cannot, do not. The seasons make their selection with varying diseases. The

* Pediatric Consultant, Turkish Sugar Trust, Ankara.

- child who is not protected is prone to all these seasonal diseases in addition to the usual diseases of infancy.

The peasant mother has neither the strength nor the knowledge to protect her child against nature. She is the only one who takes care of the infant, who feeds him, looks after him, brings him up and protects him from disease. The care that she provides is based not on knowledge but on intuition and centuries-old customs. The small creature who shares his mother's life must look to her only for protection without recourse to doctors, nurses, welfare workers or other trained people. Then, very soon, she must resume her work in the fields and the child is bereft of even his mother's care and is left with an old grandmother or with his own slightly older sisters.

The village infant is a part of a primitive community based on production and labor whereas the city infant belongs to a social complex based on consumption. The pediatrician must keep this important distinction in mind when considering the problems of infant mortality. In a city family, life revolves around the child and his care, growth and development are subjects of absorbing interest. In a village family life centers around the problem of scratching a living from the soil. Even the mother, who is the only guarantor of the child's health, has to participate in agricultural work. In village society an individual's worth is measured by his ability to work, on which depends his ability to survive. The village infant, being unable to work, is a being with no social value in the village. He has no importance, no individuality, and only begins to acquire a personality and value when he is old enough to work.

Birth is a divine happening in Anatolia. The Anatolian woman has many pregnancies and the children who survive eventually add to the productive power of the village but the peasant's life philosophy is based on nature. He accepts disease and death as naturally as he accepts health and birth. Apart from its mother, the death of a child does not affect the village. The villager, armored by religious beliefs and prejudices, takes the death of a child as he does any other natural happening, with head bending resignation. Thus, when the pediatrician wishes to investigate problems of infant mortality in the village he is faced with a community in which the infant's importance has not been recognized and which has abandoned him to nature completely. I shall record here my observations of the health conditions faced by infants who live in such communities.

Nature is the first of the health conditions to be considered. The health of the infant is related to the seasons, there being a summer

peak and a winter peak in the mortality rate for village infants. For example, the summer diarrheas of infants, and the loss of electrolytes and fluids related to these diarrheas, have a definite relation to meteorological factors and to the time of year. In the Turhal area a study of 485 cases of dehydration revealed that the monthly incidence was as shown in table 1.

The meteorological effect on health is enhanced by the clothing of the children. Village infants who are tightly swaddled suffer particularly from dehydration in the summer months when humidity is at its lowest. This dehydration might be called a meteorological factor syndrome. It occurs largely in infants from 0 to six months, (65.5 per cent of cases). In such infants, who are generally breast-fed and slightly underweight, the dehydration when it occurs is of a

TABLE I
INCIDENCE OF INFANT DEHYDRATION

January	4.1	per	cent
February	1.8	"	"
March	2.4	"	"
April	2.8	"	"
May	6.8	"	"
June	18.7	"	"
July	19.7	"	"
August	16.9	"	"
September	8.4	"	"
October	8.8	"	"
November	6.3	"	"
December	3.9	"	"

typical nature. It is usually seen in the months of June, July and August, starting suddenly with a fever of 39-41 C. and with a speedy recovery when the baby is given the necessary fluid, is washed and is normally clothed. This meteorological dehydration is closely related to the facts that the infant is overclothed and his fluid requirements are not met.

Another hazard frequently associated with these cases of meteorological dehydration is the following: in most villages a type of warmed earth called höllük is placed inside the swaddling clothes of the newborn infant to absorb urine and fecal matter. Together with the fact that the höllük increases the possibility of dehydration during the summer months it also renders the newborn susceptible to neonatal tetanus. Most of the newborn babies who suffer from neonatal tetanus (which is of frequent occurrence in this area) are infants who have been wrapped in earth with unhealed navels.

This ignorance of proper child care on the part of village mothers is another of the health conditions which village infants must surmount in order to survive. Children are washed very seldom, they are either under or over clothed, and their fluid needs are not met. The child care knowledge of village women is derived from custom and tradition and the basis of all child health, which is proper nutrition, is not understood in the village. The mother nurses her baby when he cries, which is often, and rarely offers any supplementary feeding. When mother's milk decreases the infant is underfed and even when it stops completely, artificial feeding is not done properly. The infant is commonly fed only starchy foods and, as is the case with village nutrition in general, vegetables, butter, meat and eggs are not included in his diet.* Because there are few grazing areas in Turkey, milk productivity is very low and is not even enough to meet the requirements of the peasant family.

A third health condition facing the infant is the absence of any knowledge concerning illness and infection. This is related to the general ignorance and lack of schooling of the village people. The diseases of the village infant are not considered to be important. They are treated in the first instance by the old women or the village hodja (religious teacher), the first and often the only "doctors" to treat the infant. As a result of years of helplessness, with no outside aid, empiricism has taken over the villages. Old wives' remedies, amulets to ward off the Evil Eye, divination by molten lead (kurşun dökme), and prayers, are the remedies which are tried. The infant is only taken to a doctor, if one can be found, when his condition is extremely grave. . . .

We have made a study in the Turhal area in which we have tried to investigate the speed with which parents apply to the doctor in cases of severe infantile dehydration, which can be cured only if checked early enough. The study makes it clear that a very small percentage of infants is brought to the doctor during the crucial first few days of illness (table 2).

A fourth condition to consider is the absence of any concept of preventive medicine or prophylaxis. The peasant mother does nothing to protect her child from disease or to prevent it because she does not know that diseases such as measles or whooping cough are contagious. There is in fact no concept of contagion in village

* See Social Aspects of Child Nutrition in Turkey, Sabiha Cura.

areas. The only immunization provided by the government is for smallpox and tuberculosis (BCG).

TABLE 2
DAY OF ILLNESS ON WHICH INFANT IS TAKEN TO DOCTOR

	FIRST DAY	FIRST 3 DAYS	3-5 DAYS	5-7 DAYS	7-10 DAYS	10-15 DAYS	15-30 DAYS	AFTER 30 DAYS
IN TOWNS	8.5 %	28.1 %	13.06 %	20 %	6.1 %	8.9 %	3.8 %	5.3 %
IN VILLAGES	1.1 %	23.03 %	16.2 %	21.3 %	10.1 %	14.04 %	10.1 %	3.9 %

Economic factors too can be classed among the health conditions facing the village infant. Work takes away the time which should be given to the care of the child. The mother has to play her part in the agricultural life of the village and the infant is often left alone in a corner of the house which is at best small, dark, primitive and overcrowded. When the baby is ill, being considered a useless thing with no economic value, his treatment expenses are a great burden to the family. Sometimes even though he has been taken to a doctor, he is left without treatment because his family is unable to afford the necessary medicines. A new medical problem related to economic factors is the rising incidence of tuberculosis in village children due to association with men who have worked in cities (as many peasant fathers do periodically) and there contracted the disease.

Conditions in villages throughout Turkey are very similar to those in the Turhal area and can be summarized as follows:

TABLE 3
GENERAL CONDITIONS APPLYING TO TURKISH VILLAGE INFANTS

FOOD	MOTHER'S MILK.
MANNER OF FEEDING	EVERY TIME THE BABY CRIES.
SUPPLEMENTARY FOOD	COW'S MILK, SHEEP OR GOAT'S MILK, RICE FLOUR, VARIOUS SAUCES OF THE DISHES COOKED FOR THE REST OF THE FAMILY.
HÖLLÜK (SWADDLING IN EARTH)	GENERAL IN ALL AREAS.
CONCEPT OF CONTAGION AND PROTECTION	NON-EXISTENT.
FIRST RECOURSE WHEN FACED WITH ILLNESS	OLD WIVES' ADVICE, OLD WIVES' MEDICINE, PRAYERS AND WITCH- CRAFT (YATIR).

For the pediatrician to gain some insight into the problem of infant mortality he must have knowledge of the morbidity of the infants in his area and of the social background of these diseases. In the war against infant deaths the pediatrician should start by investigating the particular problems of the area (social and economic as well as medical). The deaths which are most difficult to prevent are those occurring during the first seven days of life. In order to elucidate the causes of these deaths we must have a look at the problems arising in the neonatal period. In the morbidity survey that we made of village and town infants we found that the pathological factors affecting the newborn can be tabled as follows:

TABLE 4
FACTORS AFFECTING MORBIDITY IN THE NEWBORN

1) IMPROPER CARE	39.3 per cent
2) INFECTIONS.....	37.4 " "
3) CONGENITAL MALFORMATIONS.....	6.4 " "
4) PREMATUREITY.....	5.1 " "
5) BLOOD DISTURBANCES	1.9 " "
6) BIRTH TRAUMAS.....	1.2 " "

In the first category, improper care, the cause is largely improper feeding. One of the leading causes of morbidity in our area is neonatal dehydration (discussed earlier in connection with meteorological factors). Such dehydration is usually seen in babies of from 7 to 15 days and the chief cause is inadequate feeding. Mothers who have no knowledge of proper child care do not know how to balance food during the first days of life, do not give water, and when their own milk is inadequate do not supplement it so that, even during the first 15 days of life, it is possible to meet cases of severe clinical malnutrition (at the rate of 1.9 per cent). Most of the infections in our area derive from this same lack of knowledge of basic child care. Two examples of neonatal infections in our area are the tetanus neonatorum previously mentioned and yılanlık or erysipelas. The erysipelas, like the tetanus, is due to the primitiveness of child care in the village and the practice of swaddling in earth. It usually appears in the scrotal area.

As is seen in table 4 the relative importance of morbidity causes diminishes very rapidly after the first two categories. The remaining causes are those connected with the development of the fetus, blood types, birth problems and other biological happenings with no definite source. What is important is that 76.7 per cent of the neonatal morbidity in our area is caused by improper care or infection. In

order to show the specific causes of morbidity and the differences between the first and second years, we have drawn up the following table based on research on 9,149 children, table 5.

TABLE 5
CAUSES OF MORBIDITY IN VILLAGE CHILDREN

AGE 0 TO ONE YEAR		AGE ONE TO TWO YEARS	
Rickets	14.6 %	Acute digestive disturbances, enteritis	14.4 %
Disturbances caused by feeding, malnutrition	13.2 %	Infections of the throat and upper respiratory system	13.5 %
Acute digestive disturbances	11.7 %	Disturbances due to feeding, malnutrition	12.4 %
Infections of the throat and upper respiratory system	10.8 %	Contagious diseases	11.9 %
Acute diseases of respiratory organs	8.6 %	Rickets	11.5 %
Disturbances due to over or under feeding	8.3 %	Acute diseases of the respiratory organs	10.2 %
Acute loss of fluid and electrolytes	7.5 %	Anemias	7.6 %
Contagious diseases	3.9 %	Mouth infections	4.02 %
Infections of the mouth	3.1 %	Allergic reactions	2.8 %
Anemias	2.8 %	Infantile tuberculosis	2.3 %
Infections of the eye	2.6 %	Acute loss of fluids and electrolytes	2.3 %
Skin diseases	2.2 %	Skin diseases	1.5 %
Otitis media	2.0 %	Infections of the eye	1.2 %
Allergic reactions	1.9 %	Intestinal parasites	1.1 %
Congenital malformations	1.7 %	Diseases of the nervous system	1.07 %
Infantile tuberculosis	0.7 %	Syndromes of food inadequacy	1.07 %
Diseases of the nervous system	0.4 %	Otitis media	0.9 %
Syndromes of food inadequacy	0.3 %	Congenital malformations	0.6 %
Prematurity	0.2 %	Diseases of the urinary system	0.6 %
Hemorrhagic diathesis and syndromes related to traumas of birth	0.09 %	Hemorrhagic diathesis	0.03 %
		Prematurity	0.03 %

Other than this, little or no research has been done on infant mortality in Anatolian villages. In the Ankara region Dr. Necdet Özlem carried out morbidity research on 7,642 infants between 0 and 1 and a table of the most frequent diseases in the area was drawn up. According to this table the first category consists of metabolic and digestive disturbances including dyspepsia, enteritis, dystrophies and the toxicosis group. After this category come diseases of the respiratory system, nose and throat diseases, otitis, pneumonia, rickets, and contagious diseases. The morbidity table that we prepared (table 5) is one based largely on the children of the Turhal area and is therefore one based on village and small town conditions.

In our area it can be seen that the most important problem is rickets in children from 0 to 1. The second problem is malnutrition of many kinds connected with continuous digestive disturbances and a restricted diet. The third category consists of acute digestive disturbances and enteritis. In the second year the most important problems are acute digestive disturbances and infections of the throat and upper respiratory system. Malnutrition, clinical and otherwise, is a serious problem in both age groups but contagious disease moves up from eighth place in the first year to fourth during the second whereas dehydration loses its importance during the second year. Tuberculosis, although a contagious disease, has been studied separately and definitely increases during the second year.

Another point of interest in the table is the fact that mouth infections such as stomatitis, glossovitis and gingivitis are relatively common. Dr. Albert Eckstein demonstrated a correlation between mouth infections and malaria, relying on the fact that stomatitis noma and malaria cases increased in the same months, but we have not been able to find such a connection from the research we have done in our area. We consider most of these to be infections in which diet plays a role.

TABLE 6
COMPARATIVE STUDIES OF INFANT AND CHILD MORTALITY

	A. ECKSTEIN	R. YÜCEULUÖ 1944	ANNUAL STATISTICS 1941-1942			
	188 VILLAGES IN 25 CITIES	IN FAMILIES OF SMALL EMPLOYEES	ANKARA	İSTANBUL	İZMİR	SAMSUN
CHILD MORTALITY	32.4 %	33.7 %	40.50 %	19.34 %	32.24 %	34.90 %
INFANT MORTALITY	21.4 %	—	22.27 %	11.37 %	17.37 %	20.64 %

TABLE 7
INFANT AND CHILD MORTALITY, TURHAL AREA

THE FACTORY AREA 1949	TURHAL AREA 1959	MOTHERS LIVING IN VILLAGES		MOTHERS LIVING IN TOWNS		MOTHERS LIVING IN CITIES		AMONG CHILDREN WHO HAVE BEEN ADMITTED INTO A CLINIC 1948 - 1949
		LITERATE	ILLITERATE	LITERATE	ILLITERATE	LITERATE	ILLITERATE	
CHILD MORTALITY 11.6 %	39.7 %	38 %	60.7 %	27.8 %	34.1 %	13.6 %	30.6 %	6.4 %
INFANT MORTALITY 8.7 %	29.77 %	28.5 %	45.52 %	20.84 %	25.57 %	10.20 %	23.2 %	4.8 %

Underlying this morbidity table are the social problems connected with the social structure of the area. The effect of these social factors will be more fully understood when a comprehensive study of the causes of infant mortality in Turkey has been made. At present our overall infant mortality statistics are inadequate and unreliable although valuable work has been done in this field. As summarized above, an extensive study was made by Eckstein, based on the questioning of 23,628 women in 25 cities covering 188 villages. Others who have worked in this field are İhsan Hilmi Alantar, Edibe Özbeğ and Ratip Yüceuluğ.

We too have done some research on child mortality in our area and our findings are shown in tables 6 and 7.

A comparison of tables 6 and 7 indicates that the findings are similar in areas where the social structure is similar. Eckstein's child mortality figure for his 188 villages was 32.4 per cent which is not too far from the figure of 39.7 per cent for the Turhal area. Where the social structure is more advanced, however, there are definite dissimilarities in both infant and child mortality as can be seen from the research which we did in the Sugar Factory area in 1949.

In order to clarify the results of this research it is necessary to point out the nature of the factory area. The factory employs a permanent staff of workmen, foremen and administrative personnel in addition to a group of temporary workmen. The important points about their way of life are the following: 1) the literacy rate of both mothers and fathers is high. (In a previous publication I demonstrated that the mortality rate among village children whose mothers were illiterate went as high as 60.7 per cent compared with an average for the area of 39.7 per cent.) 2) Workers as well as administrative personnel live in clean, light houses. Problems pertaining to electricity, water, sewage and fresh air have been taken care of. 3) The factory management has accepted responsibility for health conditions in the general area of the factory. Nearly all births take place in the factory hospital assisted by obstetricians and midwives and the care of the newborn is supervised by pediatricians. After that children are regularly protected through social pediatrics. 4) The treatment of sick children can be started early and their care is fairly good. 5) Cheap pasteurized milk from the factory farm is available for infant feeding.

Because of these factors the factory area was able to show an infant mortality rate as low as 8.7 per cent. This becomes more remarkable when it is realized that this figure includes the children

of temporary workers who generally live in less advanced social conditions than the permanent employees.

Having touched on the effects of social structure and the factory's health guarantee on infant and child mortality I should like to point out another fact. In an investigation of the mortality rate among children who had been admitted into the clinic during the years that I worked there (from 1948 to 1959) I found that the rate of infant mortality was 4.8 and the general child mortality was 6.4 per cent. In other words mortality rates go down dramatically in children fortunate enough to have access to a clinic.

The importance of health centers and clinics in the fight against child mortality can be seen from the following facts: We found that the infant mortality rate in the Turhal area and its villages was 29.77 per cent. These are generally infants living under poor social conditions beyond the reach of the factory area health facilities. Since in the factory area the infant mortality rate was seen to be 8.7 per cent it is apparent that 21.07 per cent of the infants in the villages die because of the underdeveloped social conditions in which they live. Further we found that the rate dropped still lower (to 4.8 per cent) among infants to whom clinic facilities were available. Thus it can be seen that, theoretically at least, 24.97 per cent of all village infants die from lack of professional care and treatment facilities combined with the poor social conditions in which they live. (The difference between the 8.7 per cent general rate in the factory areas and the 4.8 per cent among those using clinic facilities is attributable to the temporary workers in the factory area who are entitled to but generally fail to make use of clinic facilities and who generally live in poorer social conditions than the permanent workers.)

TABLE 8
INFANT MORTALITY AMONG CLINIC USERS AND NON-USERS

	Infant mortality	Infant mortality among clinic users	Rate of mortality resulting from lack of medical attention
Factory area	8.7 %	4.8 %	3.9 %
Turhal area	29.77 %	4.8 %	24.97 %

If we now turn to the specific causes of mortality among children in the Turhal area we must divide the investigation into four parts: stillbirths, neonatal deaths, first year deaths, and second year deaths.

Stillbirths in Ankara between 1940 and 1944, according to a study made by Edibe Özbeğ, were at the rate of 3.9 per cent (as a percentage of all births). On the same basis in 1949 we found a rate of 12.7 per cent for the Turhal area. The higher village rate, resulting at least in part from the bad conditions in the villages and the fact that our villagers are generally deprived of any assistance during parturition, is one of the greatest problems of Anatolia. Most of these stillbirths are the result of difficult births and a complete lack of prenatal care.

The following are the chief causes of stillbirths:

- 1) Malpresentation; breech, transverse, brow, extended breech, footling, presentation of cord, cord around fetus.
- 2) Diseases of the mother; eclampsia, jaundice, heart deficiency, severe anemia.
- 3) Contracted pelvis.
- 4) Prematurity.
- 5) Malformations.
- 6) Placenta praevia.
- 7) Asphyxia.
- 8) Maceration of one twin in a twin birth.

Among children born alive who die before the end of the second year the breakdown as to time of death is as follows:

TABLE 9
PERIOD IN WHICH MORTALITY OCCURS

NEWBORN AND PREMATURE BABIES	1-6 MONTHS	6-12 MONTHS	12-24 MONTHS
5.7 %	46.3 %	26.8 %	20.2 %

Here the remarkable fact is that newborn mortality is very low, however, this low rate can easily give us a false picture of the true situation. The three leading causes of neonatal death are birth traumas, congenital malformations and infection. As we have seen above, owing to the lack of midwives or other assistance at birth in the villages, the difficult birth usually results not in a birth trauma but in a stillbirth and the infant does not live long enough to be recorded among the newborns. Again, in the case of congenital malformations,

the neonate who fails to adapt himself to life dies without ever seeing a doctor and is generally not recorded.

The chief neonatal problems seen at the clinic are those related to the care of the infant and to contagious disease. The most dangerous period in the life of the child in our area is the first six months. The chief causes of death in this age group among infants seen at the clinic are as follows in order of frequency:

TABLE 10
CAUSES OF INFANT MORTALITY
TURHAL AREA - CLINICAL CASES ONLY

1. ACUTE LOSS OF FLUIDS AND ELECTROLYTES, TOXICOSIS, BLEEDING	44.8 %
2. PNEUMONIA, BRONCHOPNEUMONIA	29.03 %
3. PNEUMOCOCCAL MENINGITIS	4.3 %
4. TUBERCULOUS MENINGITIS	3.2 %
5. SEVERE MALNUTRITION	3.2 %
6. PREMATUREITY	2.1 %
7. ENCEPHALITIS	1.07 %
8. DIPHTHERITIC CROUP	1.07 %
9. TETANUS NEONATORUM	1.07 %
10. CONGENITAL HEART MALFORMATION	1.07 %
11. POLIOMYELITIS, BULBAR FORM	1.07 %
12. PURPURA FULMINANS	1.07 %
13. THROMBOPENIA	1.07 %
14. MALARIA	1.07 %
15. GANGRENOUS INFANTILE DERMATITIS	1.07 %
16. MEASLES	1.07 %
17. PEMPHIGUS NEONATORUM	1.07 %
18. NEPHROTIC EDEMA	1.07 %

In general, in the first two years, the leading causes of mortality are the following:

TABLE 11
MORTALITY IN THE FIRST TWO YEARS

CAUSES OF DEATH WHICH ARE MOST FREQUENT BETWEEN 0-1 YEARS

1. ACUTE LOSS OF FLUIDS AND ELECTROLYTES, TOXICOSIS.....	51.9 %
2. PNEUMONIA, BRONCHOPNEUMONIA	33.3 %
3. SEVERE MALNUTRITION	3.7 %

CAUSES OF DEATH MOST FREQUENT BETWEEN 1-2 YEARS

1. PNEUMONIA, BRONCHOPNEUMONIA	40 %
2. TUBERCULOUS MENINGITIS	20 %
3. ACUTE LOSS OF FLUIDS AND ELECTROLYTES, TOXICOSIS	13.3 %

The etiology of the severe dehydrations which head the table for 0-1 year olds has been described earlier. Infants admitted to the clinic with toxicosis resulting from dehydration generally arrive in a state of collapse and coma and, of these, 27.9 per cent die. The pneumonias and bronchopneumonias seen in our area are generally complications of flu, whooping cough and measles and of the cases admitted to the clinic 16.01 per cent fail to survive. Pneumococcal meningitis frequently results from pneumonias which are not treated appropriately or are seen too late. Tuberculous meningitis is a problem associated with congested living in towns where many adult members of one family live under the same roof. In the cases of severe malnutrition, when loss of protein results in the tearing down of the body's building blocks, thrombopenia and dermatitis gangrenosa often play a leading role in the resulting deaths.

The social factors underlying all these medical problems can be summarized as follows:

- 1) The absence of any knowledge of proper child care and the primitiveness of the traditional care administered to the infant, tied to the undervaluing of the infant in the social framework of the village and the resulting indifference to infant mortality.
- 2) The absence of the concept of prophylaxis. As well as being closely related to the illiteracy of the mother this lack is also due to the fact that there has been no large scale prophylactic campaign directed by the government. Preventive medicine has not reached the villages.
- 3) The absence of treatment facilities in the infant's own surroundings. Health centers are few in number and not only are most villages far removed from such centers, many are not even connected to the outside world with proper roads. The usual means of transportation available to the villager are the horse, the oxcart and the tractor.

All of these are problems which must be recognized by the pediatrician interested in combatting infant mortality in the villages. He must bring his whole education to bear on problems which are geographical, economic and social in addition to those which are purely medical. At present the pediatrician working in rural areas must generally manage without laboratory services and without the life-saving techniques such as exchange transfusions during the first hours of life, which are available in larger centers. Such a doctor bears an enormously heavy load and generally works alone without

colleagues or technical publications devoted to his particular problems to advise him.

It is obvious that the pediatrician alone cannot overcome all the problems associated with improving the health of the 87 per cent of Turkish children who live in villages. A concerted attack, backed by doctors, statesmen and intellectuals, must be made on the backwardness of life in the villages. The attack should be aimed at awakening and developing the village with a reorientation of village philosophy regarding infants and a greater availability of education in general and instruction in child care in particular. The attack should deal with the improvement of agriculture, with the problems of village land, water, roads and housing, and with the general raising of living standards. It should be directed toward the protection of village infants from disease and the realization of the dream of early treatment for those who do fall ill. An attempt should be made to set up village health units with a village teacher, village doctor and village midwife working together. And finally the attack should be aimed at increasing the number of clinics and research centers for child health and improving communications between the villages and such centers as already exist.

It is evident that such an attack on the manifold problems of village life is one which the government itself must direct with the active support and guidance of experts in all fields including the pediatrician familiar with the realities of village life and the problems of the village infant.

REFERENCES

1. Galip, R.: Köy Muallimleri ile Sıhhi Musahebe, 1928 Ankara.
2. Ömer, B.: Türk Çocuğunu Yaşatmalıyız, 1938, İstanbul.
3. Fethi, R.: Doğu Köylerinde Tetkikler, 1938, İstanbul.
4. Hakkı, İ.: Köyde Eğitim, 1938, Ankara.
5. Tümay, S. B.: Çocuk Ölümü, İstanbul.
6. Eckstein, A. : Anadolu'da Çocuk Hastalıkları ve Çocukların Korunması Problemleri, 1947, Ankara.
7. Kansu, C. A.: Turhal Dolaylarında Çocuk Bakımı Durumuna Ait Bazı Gözlemler, 1954, Ankara.
8. Kansu, C. A.: Bir Çevrede Profilaxie Kavramının İncelenmesi (not published) 1949, Turhal.
9. Kansu, C. A.: Okuma yazma ve çocuk sağlığı, Köy ve Eğitim Dergisi, 5: 58, 1958.
10. Kansu, C. A.: Anadolu'da bir çocuk hekiminin karşılaştığı problemler, Çocuk Sağlığı ve Hastalıkları Dergisi, 2:4, 1959.

UNDER THE PATRONAGE
OF THE PRESIDENT OF TURKEY
General Cemal Gürsel

THE SECOND
MIDDLE EASTERN - MEDITERRANEAN PEDIATRIC CONGRESS
WILL BE HELD AT HACETTEPE, ANKARA
from September 6-9, 1961

Pre-Congress Seminars

1. Cardiology, Cardiovascular Surgery and Surgical Repair of other Congenital Anomalies
2. Fluids and Electrolytes
3. The Newborn, Full Term and Premature
4. Pediatric Hematology

Post - Congress Activities

A one day clinical session will be arranged in İstanbul under the auspices of The Turkish Pediatric Association on Monday, September 11. Another Post-Congress Pediatric Day will be organized in İzmir by the Aegean Chapter of The National Society of Pediatrics and Child Health of Turkey.

Tours to Boğazkale, Ephesus, Bergama, Troy, Gordium, Kayseri, İstanbul and other spots of interest in Turkey have been arranged.

Program for the Ladies' Entertainment

A luncheon, fashion show, visit to the Atatürk Mausoleum, Hittite Museum and the Temple of Augustus, a concert and a banquet will be features of the entertainment planned for wives of the members. No extra fee, other than the associate membership fee, will be charged.