

HEALTH: THE MASTER KEY TO LIFE, GROWTH & CITIZENSHIP

Summarised Report of the Lectures given at the Thirteenth
Winter School for Health Visitors and School Nurses, held
at Bedford College for Women, University of London,
from December 27th, 1933, to January 6th, 1934.

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PAMPHLET

WOMEN PUBLIC HEALTH OFFICERS' ASSOCIATION,
7, VICTORIA STREET LONDON, S.W.1.

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MESSAGE FROM PRINCESS ROYAL—COUNTESS OF HAREWOOD.

I have heard from your President that the Women Public Health Officers' Association is once again holding a Winter School during the Christmas holidays. I should like to wish it every success, and to express the hope that all those attending will find it of real benefit, stimulating them to fresh efforts in the valuable work they are doing to improve the health of the Nation. I realise that, by attending the School, the Women Public Health Officers are sacrificing a large part of their Christmas holiday, and I trust they will find that the fresh knowledge gained, and the opportunity of contact with their fellow-workers, will prove a lasting encouragement, and be a sufficient reward. I wish them all a happy and prosperous New Year.

HEALTH: THE MASTER KEY.

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ADDRESS OF WELCOME.

Lady Erleigh, Vice-President of the W.P.H.O.A., who presided at the opening meeting of the 13th Winter School, said that, while she fully realised the value of modern methods of bringing up children, there were times when she wondered if there was not a danger of making the child's surroundings too perfect.

"When I look at the nursery walls with their gay friezes, so perfectly varnished that not a speck of dirt could remain on them, I long for the sight of finger-marks, or a picture drawn on the wall with a pencil. I long for the sight of the kettle boiling on the fire, and for the smell of warm flannel of our childhood days. In our public and private nurseries there could be a place for homely things, and there should not be too rigid a rule of hospital cleanliness."

One question which had always puzzled Lady Erleigh was, why the school population seemed to be afflicted with colds at the beginning of the Autumn term. Even children who went to modern schools where they wore little clothing, and were fed on orange juice and raisins did not escape these colds, and seemed to catch them just the same as those children who went to the old-fashioned schools, where they were fed on treacle pudding, and where the windows were always kept tightly shut.

Thirteenth Winter School for Health Visitors and School Nurses, 1933-34.

HEALTH: THE MASTER KEY. INAUGURAL LECTURE.

Given by THE RT. HON. ARTHUR GREENWOOD M.P.

In addressing the Students Mr. Greenwood remarked that, in order to procure a healthy nation and to make London the healthiest City in the world, Public Health Services are essential. Industrial Hygiene is as important as Public Health Hygiene. The success of a City depends entirely on its people, and not on its Leaders, and we must provide a healthy background of life on which the people can invite achievements worth while.

Whether we like it or not, the responsibility of citizenship is imposed upon us. The baby is a potential citizen, and therefore has a right to be given good opportunities of life. To attain this, six factors are necessary. He should be:—

1. Well-born; 2. Well-fed; 3. Well-clad; 4. Well-shod; 5. Well-educated; 6. He should live in airy and healthy environment.

In difficulty the nation depends upon its people, and a citizen may be called to give his "all," therefore he must demand the highest Social Services.

Health Services are contributing their part to the problem of citizenship. Good work has been done, but more is wanted. One of the greatest National tragedies is that motherhood is such a dangerous thing, causing the death of 3,000 mothers each year and the maiming of others. Reduction in Infants Death-rate has meant improvement in the standard of life due to Social Services.

As every Social Worker knows, there is frequently a gap between the elementary Schools, and the Infant Welfare Centres. It is useless to rear a tender plant, and leave it to wither under bad Social conditions. This can be remedied by the provision of Nursery Schools.

We are building up an elaborate system of care for the:—

1. Expectant Mother; 2. Infant; 3. School child; 4. Adult.

Large proportions of the people of this country live in bad and unhealthy conditions, and about one fifth of the people live in conditions out of harmony with the ideals of family life.

The Health Services are concerned with the building of straight, clean, healthy bodies for boys and girls—men and women.

In conclusion, Mr. Greenwood stated that these Winter Schools, broaden the vision of our work, bringing new inspirations and reviving the tired mind. The Schools are of more importance than Schools of Academic nature, and the final value is not so much what is learnt, as the re-vivification of hopes.

SECTION I.

HEALTH: THE KEY TO LIFE.

THE CHILD'S DEVELOPMENT DURING THE LAST YEARS AT SCHOOL.

PROFESSOR CYRIL BURT, M.A., D.Sc.

The process of growth and development form a distinctly difficult part of the child's life, particularly during the last year at school when he is struggling upward towards the responsibilities of adult life. The peculiarities of the 13—16 year old child were noticed at this time, when two definite changes were occurring.

1. *Physical changes* were the most obvious when the sex glands became capable of reproduction.

2. *Secondary changes* occurring in the:—

(a) Bones and cartilages; (b) Voice; (c) Mind.

During these mind changes, dormant and inherited characters become active.

CHANGES TAKING PLACE IN SEX-GLANDS.

1. *Intellectual changes.*

2. *Temperamental changes.*

The child's innate intelligence maximum is reached at the age of 15 years, the capabilities to grow intelligently continue from birth to about 12 years. Between 12—13 years they gradually retard, and the mental age at 15 years will remain the same throughout life, although the adult surpasses a child in general knowledge. The 6/10th ratio between age and mental capacity remains constant—but in mental defectives this ratio is much lower. The curve of physical height stops also at about 15 years due to ripening of the sex glands.

The individual difference between children is at first slight, but at 12—13 years it spreads out in intelligence—hence the importance of school grading.

At 11 years plus a child enters the adolescent period, and the crisis of development arises, not in the mind of the child, but in the adult mind. At 11 years plus the intelligence capacity is arrested—new aptitudes ripen—lack of co-ordination and muscle changes occur.

EMOTIONAL SIDE OF MENTAL GROWTH.

1. *Child becomes excitable.*

2. *Sex instincts ripen*, and may be re-enforced resulting in an over-sexed child.

3. *Sex Tendencies* (biologically right) become more acute. The Lecturer considered far too much importance was given to the sex instinct. An enormous amount of harm was done by popular statements that sex instincts are so violent that it is difficult for people to withstand the temptations to which it subjected them. Actually the sex instinct is a comparatively weak feature in the human race—hunger and fear are of a much more violent nature. A great deal put down to sex is merely curiosity on the part of the child. The problem of sexual instruction is a difficult one, but to deal with it satisfactorily, frankness is essential and to be given when asked.

Other interests prevail during the later years of school life:—

1. Social development will increase.

2. Instinct of curiosity.

3. Instinct of self-assertion.

4. Instinct of self-repression, leading to neurotic conditions.

The health of a child during the last years at School must include Mental and Moral as well as Physical health.

WORKING LIFE OF BOYS AND GIRLS.

MRS. C. D. RACKHAM, M.A., J.P., C.C.

In dealing with the working life of boys and girls, the Lecturer stated we must realise that we are dealing with adolescents, and that during adolescence extra strain is put upon the child. The health of adolescents is affected by:—(a). Home conditions—food—leisure—opportunities for exercise of mind and body. (b). The wage-earning life.

It is deplorable that so many school children are working. School is a "full-time job," and where there is poverty it should be relieved in some other way. About 90,000 boys and girls over school age are unemployed, and yet younger children are called upon to earn. The 1921 Act lays down:—

1. Child of school age may not be employed for more than one hour before school, and not after 8 p.m., and only for two hours on Sunday.

2. No child of school age may be employed in street trading.

Local Authorities are given power to make by-laws forbidding the employment of children in certain occupations, and they can forbid employment before school. In Sir George Newman's report on the Health of the School Child it is stated that over 3,000 certificates were granted to allow the employment of school children in London in 1932.

In Bradford 500 certificates were granted; in Liverpool 1,450; Leeds 878. Sir G. Newman has also stated that a child's health tends to go backward after leaving school. Work undoubtedly causes a strain upon the growing child. Approximately 700,000 boys and girls leave school yearly, and the majority enter factory life where they are allowed by law to work 60 hrs. per week, while the maximum hours per week should be 48. Last year there were 35 fatal accidents to boys and girls in factories, and 16,000 non-fatal. The Lecturer considered a new Factory Act was necessary for the reduction of hours, and to provide greater safety and better washing and messroom accommodation. Strong public opinion was essential for the passing of such an Act.

SHOPS. In London 23,400 boys and girls were employed in or about shops. The law allows a young person to be employed in a shop for 74 hours per week; the Local Authority can fix closing hours for shops within certain limits. Shops Inspectors have no right of entry as Factory Inspectors have and the lecturer considered that this called for a remedy.

A recent *Report* gives the average shop hours as follows: *Butcher*, 55 hrs; *Greengrocer*, 56 hrs; *Tobacconist*, 50-60 hrs; *Sweetshop* up to 75 or 80 hrs; *Ice-cream*, 60 hrs—all too long. Legislation governing this work is much over-due—long hours give children no leisure to improve their education, etc., Leisure in working life is of extreme importance for mental and physical health. Only approx. 1 in 3 or 1 in 4 adolescents belonged to clubs, etc.

NON-REGULATED OCCUPATIONS: (a) Domestic Service; (b) Agricultural work; (c) Errand work; (d) Messengers; (e) Van work; (f) Cafes, etc. The hours and conditions are often worse than in Factories and shops, and a quarter of boys leaving school enter such employment.

With the exception of the examination by the Factory surgeon no health provision is made until child becomes insured at 16 years. Children joining N.H.I. at 16 years do not come into Sickness benefit until 16½ years and into additional benefits for several years. Unemployment Insurances Benefit is not paid before 16 years, although juveniles are to start paying contributions at 14 under the new Bill. At 16 years a young person is often unemployed because of having entered a blind alley occupation at 14. Boys and girls between 16 and 18 if claiming benefit, can be made to attend Juvenile Employment Instruction Centres. Provision in the new Unemployment Bill states that employers can be compelled to notify the Juvenile Employment Bureau of any dismissals of juveniles.

Crime during adolescence can be associated with over-work and with monotony of work as well as with unemployment.

To improve the working life of children there should be less hours of work and opportunities for wise and healthy leisure. These Mrs. Rackham considered are essential if we are to give our young people "Health, the Key to Life."

THE EXPECTANT MOTHER.

L. C. RIVETT, M.A., M.C., (Cantab.), F.R.C.S., M.C.O.G.

During evolution it is agreed that the race develop gradually from the primitive forms of life, until the highest form is reached. Pregnancy is therefore a normal physiological process, but for the mother a very uncomfortable process.

The non-pregnant woman by means of food produces energy, and repairs the wear and tear of the tissues. During pregnancy the developing ovum in utero takes from the maternal blood all material necessary for foetal development, and returns to the blood products of its own metabolism.

What are the mother's requirements during pregnancy:—

1. *Adequate supply of oxygen* when a plentiful supply of clean fresh air is essential. The lung capacity is diminished, due to the enlarging uterus, and much widening of the ribs is required for the mother to accommodate the necessary amount of oxygen. It can be seen that it is important there should be no restriction on the ribs.

2. *Clothing.* This forms an important part of the category of a pregnant mother, and good advice can be given by the Health Workers. Allowances must be made for the enlarging uterus and the abdominal muscles must be well supported. An abdominal belt offers great comfort, and is very beneficial. Clothes over the abdomen should be light and loose.

3. *Food.* A number of fallacies abound concerning the diet of the pregnant mother. Excess of milk should be avoided, and SHOULD NOT be given as an additional means of nutriment, as some Local Authorities are prone to do, fruit and vegetables are much more beneficial. Diet should aim at supplying the substances needed by the embryo.

Necessary Factors for Diet.

1. Plenty of fresh fruit and vegetables are important.
 2. Good supply of vitamins are necessary.
 3. Carbo-hydrates—usually desired by the patient and consequently eaten to excess.
 4. Sparing supply of meat.
 5. Sparing supply of milk.
 6. Water is an important accessory to good health during pregnancy. Too much fluid cannot be taken, as the fluid intake will always balance the fluid output. As the mother's and baby's products of metabolism have to be excreted from the kidneys the need of additional water is obvious.

4. *Exercise*, and particularly of the abdominal muscles is necessary. Walking is a good form of exercise, but should be taken with a certain amount of caution. A pregnant mother becomes more easily fatigued

due to the acid re-action of metabolism. Excess of acid is one of the factors producing eclampsia.

5. *Rest.* Extremely important for the wear and tear of tissues. 1—2 hours rest should be taken in the middle of the day, as routine.

In explaining to the pregnant woman that pregnancy and labour are normal, care must be taken that the woman's fears are not aroused by our insistence that things are all right. Confidence in those who are going to attend her during pregnancy and labour is of more value than repeated assurances that all is well. Apprehension of the actual pains of labour can be allayed by promises of the administration of drugs during labour. The simplest drug—chloral hydrate—will do much, and many of the new drugs such as Nembutal are proving most valuable. We can certainly promise most of our patients some relief.

ANÆMIA IN INFANTS AND YOUNG CHILDREN.

HELEN M. M. MACKAY, M.D., M.R.C.P.

ANAEMIA is poverty of hæmoglobin in blood. The importance of anæmia in babies lies in these factors:—

1. Disease is common.
2. Largely preventable.
3. Blood tests reveal anæmia.

Poverty of hæmoglobin due to:—

1. Deficiency of hæmoglobin and corpuscles.
2. Excessive destruction of corpuscles.
3. Loss of corpuscles.

The hæmoglobin percentage of the newly-born is higher than the adult, when post-natal breathing is established the oxygenation of blood is improved—consequently fewer corpuscles are needed to do the same amount of work. After birth hæmoglobin level drops, and remains the same until 2—3 months old—the level rises again until 5—6 months, when a second drop is noticed continuing until mixed feeding commences. The second drop in hæmoglobin level can be prevented by the addition of iron. In normal cases this drop is very slight.

An infant derives its iron from food, and iron store present in the liver.

Food. Milk supplies little iron, and if anæmia is to be prevented iron must be supplied from other sources.

The amount of iron present in the liver depends upon the:—

1. Mother's supply during pregnancy.
2. Rate of infant's growth—i.e., Premature baby grows quicker, and therefore uses up its supply sooner than normal infant.
3. Hæmorrhage at birth and consequent loss of iron.

Effect of Iron Deficiency. Illness rate is much higher—lessened rate of growth—drop in hæmoglobin level.

Symptoms of Anaemia. 1. Pallor. 2. Gradual loss of weight, or gain is unsatisfactory. Treatment with iron will improve these conditions.

Premature infants are much more prone to anæmia, due to the excessive time kept on milk diet.

The prophylaxis of anæmia is simple. A mixture of iron and ammonia citrate given in 1 teaspoonful doses thrice daily in increasing doses will have desired effect. For artificially fed infants, dried milk containing iron, is good method of treatment. Anæmia in infants can be avoided by introducing a mixed diet at about 6—7 months, and not too liberal a supply of milk. Child of 1 year needs 1 pint of milk daily, thus giving him an iron deficiency—can be remedied by good mixed diet. *Treatment* as or prophylaxis but in larger doses.

Vitamin C is an essential factor for normal hæmoglobin, and corpuscle building. In addition, give in the diet liberal supply of fruit juice.

Anæmia due to hæmorrhagic diseases of the newly-born is common, and can be prevented by injections of human blood. In such cases continued iron treatment is essential. Prognosis of anæmia of this kind is bad unless treatment is given. Copper is another element needed for hæmoglobin building, and whether copper should be administered with iron in treatment of anæmia is a question of opinion, but lecturer considered infants derived sufficient amount from their food.

IRON CONTENT OF FOOD.

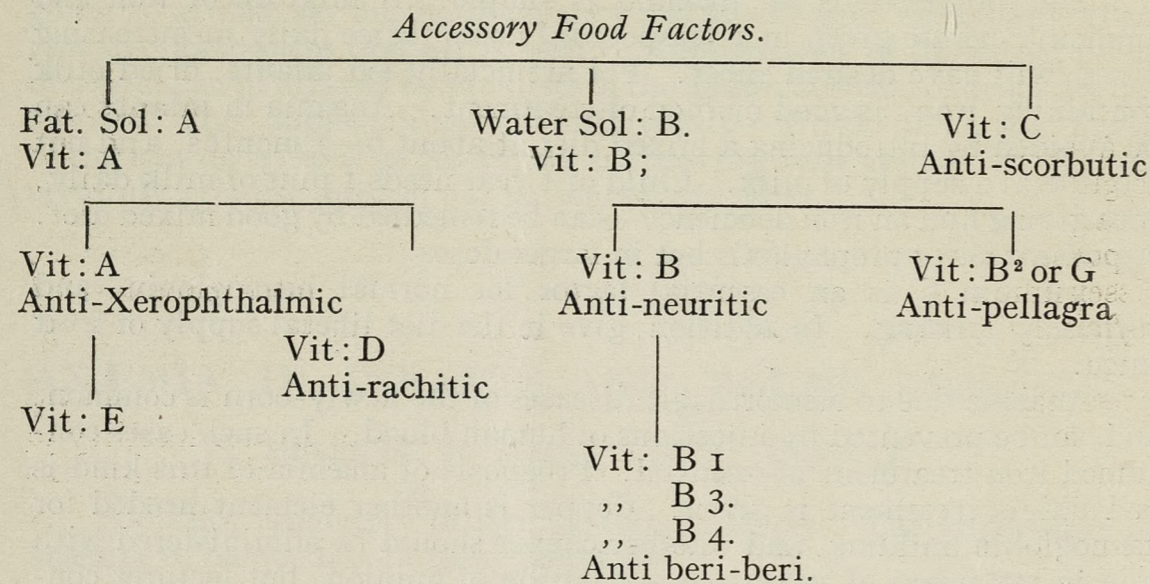
1. Egg yolk—rich in iron.
2. Meat—moderate amount of iron.
3. Green vegetables—moderate amount of iron.
4. Fruits—containing varying amounts.
5. Milk containing low supply.

In conclusion Dr. Mackay stated that, under existing conditions, anæmia due to iron deficiency was undoubtedly the commonest form of anæmia in infants.

DEFICIENCY DISEASES IN INFANCY.

PROFESSOR R. H. A. PLIMMER, D.Sc.

It is generally agreed that Vitamins are essential to good health, but it is not realised that adequate quantities of each are necessary. The vitamins may be tabulated as follows:



Only minute quantities of Vits. are present in foods, and to obtain sufficient amount a relatively high amount of those foods which contain the vitamins must be eaten to get adequate supplies. Vits. are derived from the four main groups of food:—1. *Fats and Oils*—Vits: A plus D, 2. *Seeds and wholemeal Flour* Vits: B or B₁. 3. *Fresh fruit and vegetables*—Vits: C. 4. *Lean meat, fish, cheese, milk, eggs*—B² or G. Absence or too little Vits: lead to deficiency diseases, thus a complete diet or Square Meal is essential. Square meal must contain:—1. *Vit: A* in fatty fish—liver—kidneys—dairy produce, etc. 2. *Vit: B* in wholemeal flour—pulses—egg yolk, etc. 3. *Vit: C* in fresh fruits—vegetables. 4. *Vit: B₂ or G* in meat—fish. Carbo-hydrates—fats—water and mineral salts must not be omitted. Foods which do not supply Vits: should be eaten in small amounts.

The average diet may not include enough of the above mentioned Vits: in diet.

Vit: C content of fruits vary. To prevent scurvy in man 1 ounce orange juice per day is necessary—1½ ozs. tomato juice—6¾ ozs. apple.

Vit: C content of vegetable. To prevent scurvy in man 1 ounce cabbage is needed—1¾ ozs swede turnip—7 ozs. potato.

Milk is very poor in Vit. C; equivalent quantity is 3½ pints.

Effect of cooking on Vits: Vit: content of cabbage is not altered appreciably if cooked for 20 minutes without soda. Milk if boiled for 3 minutes remains same. Marmalade and apple sauce have no anti-scorbutic value. Too little Vit: C in diet causes scurvy in short time.

Symptoms of Vit: C deficiency. 1. Alteration in complexion. 2. Malaise. 3. Lessened resistance to disease. Experiments on school children have proved that health and teeth are improved by increase of fruit and vegetables. Infants and children certainly require more Vit: C than is usually given—add ½ ounce of orange juice to diet daily. *Deficiency of Vit: B* leads to beri-beri. Experience in Japanese Navy proved that meat diet made little difference to beri-beri, but prevented by addition of barley to the diet corresponding to approx. ⅓ of the day weight.

Foods containing Vit: B. 1. Wholemeal flour. 2. Wholemeal Barley. 3. Whole Rice. 4. Oatmeal. 5. Nuts. *Foods not containing Vit: B.* 1. White flour. 2. Pearl Barley. 3. White rice. 4. Sago. 5. Tapioca. *Amount of Vit: B wanted in diet corresponds to* Yeast 4%—Marmite 6%—Bemax 6%—7%—Cereals 40%—tomato 80%—potato 90%. Hard roe of fish is an important food yet often neglected. Essential that bulk of food should be balanced by Vit: B. *Symptoms of deficiency of Vit: B.* 1. Distaste of food. 2. Loss of appetite. 3. Depraved appetite. 4. Colitis. 5. Sub-normal temperature. 6. Anæmia. 7. Indigestion. 8. Tendency to oedema. *Deficiency of Vit: D* causes rickets. Deficiency of Vit: A leads to greater liability to infection by micro-organisms. Part played by the fat soluble vitamins A and D has been ascertained by experiments on animals—green leaves, dairy produce and Cod liver oil supply deficiency.

BREAST FEEDING.

C. K. J. HAMILTON, B.M. (Oxon.), F.R.C.P.

No one can deny the importance of breast feeding, even a few weeks is of the utmost value to an infant, since it confers some immunity against infectious disease. Better to breast feed and supplement than to wean entirely. Few mothers cannot feed their babies. Getting up is often a difficult period as increased anxiety and strain diminishes the milk supply. Infants are sometimes weaned because the mother thinks her milk is of poor quality. Breast milk may have less or more % of fat than is good, but condition is rare. Quality of breast milk is rarely if ever wrong. Analysis can be taken but a 24 hour secretion is necessary for reliable results. At a London Clinic 76% of mothers entirely breast fed their infants until 8—9 months.

Contra-indication to breast feeding—if mother has serious illness—but in case of many acute diseases (influenza) if mother's condition warrants it milk can be expressed or breast feeding continue with perhaps a little supplementary food.

Preparation of lactation begins in early stages of pregnancy when depressed nipples should be treated. Once lactation is established the supply does not depend upon internal secretion but upon the removal of milk from breast by sucking of infant and complete emptying of breasts (most important).

Mother's diet during the nursing period: 1. May eat anything she likes as long as it agrees with her usually avoiding spicy foods. 2. Adequate all-round diet with a good mid-day meal of meat and vegetables. A good general diet will prove much more efficacious than patent foods and drugs reputed to increase the milk supply. Sometimes there is a deficiency of Vitamin D in mother's diet, and breast fed baby may develop rickets. To remedy this give mother or baby Cod liver oil, or liberal supply of good butter and such foods to the mother. Lactating mother probably requires more Vitamin B. complex than normal. Water in adequate quantities is essential; a drink of water at feeding times is beneficial.

Colostrum—much more concentrated than mature milk containing higher amount of protein, rather low in fat. The rate of change from colostrum to transition milk is regulated by the amount of milk removed from breast. Transition period occurs before mature milk. Infants are inclined to be over-fed at this period (1—3 weeks) due to the high % of fat. After 9 months breast milk deteriorates.

Fat content of Breast milk depends on time of day—higher during mid-day feeds—last portion of feed contains more than 1st portion. Sugar and protein content is constant.

Test Feeding is of importance in finding out the amount of food taken, but can be much over-done. At establishment of lactation, 1. Infant must feed regularly. 2. Infant must not be discouraged by being asked to suck too long at the empty breast. Infant weighing 7 lbs. or more should be fed 4 hourly, under 7 lbs. 3 hourly. Premature infants may need 8—10 feeds. No night feeds for normal infants. Duration of feed depends upon infant. 5—10 minutes per breast is usual. Infant requires $2\frac{1}{4}$ — $2\frac{1}{2}$ ozs. of breast milk per lb. body weight daily.

The maintenance of lactation depends almost entirely upon regular and complete emptying of the breasts.

Artificial food should be introduced at about 6 months in addition to breast. After 2 p.m. feed give little cereal. At 7 to 8 months introduce juice of cooked vegetable, bone broth, and egg yolk. Sufficient iron can usually be obtained until 9 months, the breast milk being supplemented by the reserve store in liver of the infant. Prematures have a deficiency of iron store. Twins suffer in like manner. Better to give iron in these cases. Cod liver oil can be added at 6 months in $\frac{1}{4}$ teaspoon doses daily increasing one to two teaspoons to guard against rickets.

Over-feeding not sufficiently realised and probably in many cases leads to under-feeding. *Symptoms:* 1. Loose frequent stools; 2. Vomiting; 3. Crying; 4. Colic; 5. Too quick gain in weight. Test-feeding will guard against and prove over-feeding. Over-feeding results from too frequent and too long feeds. *Treatment:* Always remove cause (of highest importance). Take child off breast for 24—48 hours in difficult cases and give expressed milk only. In severe cases give small doses of casein to make stools alkaline and inhibit the growth of fermentative organisms.

Under feeding. Symptoms. 1. Weight curve remains stationary

or may fall. 2. Constipation (common) followed by diarrhoea in advanced cases. 3. Vomiting due to sucking at empty breast. 4. Infant may be very good (exceptions to this). 5. Wasting first noticed by decrease in subcutaneous fat in skin over abdomen.

Two common causes of under feeding: 1. Nervous mother and child—mother worries re breast feeding—conveys nervousness to infant. Encourage mother in every possible way and allow as little handling of the infant by mother as possible. 2. Weakness in sucking (prematurity, etc.). Lecturer exploded popular theory of "tongue-tie" and stated he had never yet seen a real case. *Treatment:* 1. Complete emptying of breast by infant or manually. 2. Hot and cold sponging. 3. Massage. Give supplementary feeds to the infant, if it is required, but never substitute a whole feed by a bottle feed.

SECTION II. HEALTH: THE KEY TO GROWTH.

SEX PROBLEMS OF EARLY CHILDHOOD.

J. A. HADFIELD, M.A., M.B.

Problems of psychological nature often arise during Health Visitor's work, and problems of conduct difficulty and sex problems are often not dealt with, and yet are very difficult for the Mother when they arise; and are important questions from point of view of mental hygiene. Sexual problems of later life invariably begin in infancy. Before dealing with sex question in early childhood, one must understand the sensuous problems of the child.

How do these sensuous problems develop.

In infancy child has many biological functions associated with sensuous gratifications, i. e., infant derives pleasure from its excretory functions, and repression of his interest in excretion may lead to mental disturbances later. Sand, mud, water and watering cans provide substitutes for this interest. Enuresis may follow this sensuous gratification. Value of sensuousness is to encourage these biological functions, and is of importance. These functions become habits later, and sensuous pleasures become attached to reproduction. Sensuous pleasure in children only becomes wrong when it is done just for itself alone. A baby will suck its thumb as though it were at the breast, and consequently pleasure is derived from something which is of no biological value, and is counted as abnormal. The cure lies in the diverting of the child's mind to something else. Child sucks its thumb for many reasons: 1. When it is tired. 2. When it is bored. 3. When it is afraid. 4. When it feels unloved. Remove the causes and thumb-sucking will discontinue. Similar procedure is to be applied to other forms of sexual pleasure. It is definitely harmful to tell the child it is wrong to suck the thumb. Infants often pass from these sensuous activities to masturbation. The lecturer regards this as theoretically abnormal—but to the child in first instance masturbation is not wrong—he or she will call his mother's attention to pleasure he is experiencing, but to adult whose complexes are more firmly developed there appears an exaggerated sense of wrong doing which is transferred to child. Simple forms of masturbation can be broken, but the child must not be dealt with harshly, as this is liable to produce bad complexes leading to abnormality. As a result of wrong punishing, child becomes resentful and rebellious and indulges secretly. A child taught that sexuality is wrong, will on other hand cul-

tivate a fear of sex, leading to arrest in adult forms of sexuality. In every case divert child's mind to something else, making no mention of its sex organs.

Sexual and sensuous habit of neurotic type caused by child feeling deprivation of love in early childhood turns to masturbation or thumb sucking as a solace. In illness a child feels sad and bored, needs pleasure and discovers masturbation, will supply his need. In adolescence individuals resort to sex habits as a compensation for their inferiority temporarily producing the sense of "well being." To cure these neurotic problems, find out causes—(will probably be due to unhappiness)—and rectify it. Important point is to find out what is at back of child's mind.

Sex problems in early childhood should always be dealt with in a scientific spirit.

Other problems occurring in early childhood: 1. Circumcision operation in early childhood which produces complexes. Fear is left in child's mind as the result of anaesthetic—if atmosphere of home life is one of love and affection child will rapidly overcome this fear, otherwise state of fear may cause complexes during adolescence. 2. Nightmares and terrors about 3 years old are commonly associated with sex problems often due to sexuality and guilt of this. Commonest cases of nightmares arise from threat of parents on account of sensuous stimulus. Trouble often arises in sex problems often due to the stupid or thoughtless or over-anxious treatment on part of parent. A common theory that masturbation gives rise to T.B. and insanity was to be expounded as utterly false. Parents have fear of these problems and consequently pass complexes to the child.

NURSERY SCHOOLS.

MISS LILLIAN DE LISSA.

Miss de Lissa began her lecture with a brief history of Nursery School Movement. In 1908 a report was published stressing that elementary Schools were unsuitable for children under five years, and recommended the instituting of Nursery Schools. Nursery Schools did not take their place in the National System of Education until the passing of the Fisher Act in 1918. During war years, children were cared for by voluntary Schools which became permanent Nursery Schools in 1918. In 1929 Board of Education and Minister of Health urged Local Authorities to provide such Schools. Of 58 Nursery Schools in England, 32 are run by Local Educational Authorities—others are voluntary. The urgent need for more Nursery Schools to fill the gap between the time the child ceased to attend the Welfare Centre at two years and the time it entered elementary School at five years was prevalent. "It is criminal folly," said Miss de Lissa, "that we should spend so much time and care and money on Maternity and Child Welfare Services, and for want of foresight throw all the gain away and let large percentages of our children

become permanently defective between these ages. I suggest this is a criminal waste of public money, and it is blasphemously cruel to allow children to degenerate through carelessness." Mothers are not able to recognise signs of ill-health in their children. Parents have a kind of fatalistic attitude towards children's complaints, i.e., coughs, and colds, squints, etc., and dismiss the ailment with "Oh, he'll grow out of it," and nothing is ever done. When the child enters the elementary school it is found to be defective in body and mind—mal-nourished—mal-adjusted—suffering from bad habits and full of chronic complaints. Nursery Schools would avoid all this.

It must be realised that Nursery Schools are not a palliative for bad social conditions, but are thought out scientific methods of caring for child from 2—5 years, safeguarding healthy development of body, mind and character. In the Nursery School the child is given a healthy way of life, and encouraged to use its ears, eyes and hands. Mind food is extremely important to a child and this the Schools provide, and child has companionship of children of his own age.

These Nursery Schools are of the open air type, providing warmth and good water and plumbing supply.

Numbers in a Nursery School vary from 40—260, those in bigger schools being divided into groups. Experience shows that children attending a Nursery School are less liable to infection, and school is the safest place in times of epidemics as they are living in good conditions, and building up resistance because they are happy.

Hours of School depends upon district, but usually are from 9—4 p.m. No payment is made by the mothers except for meals. On arrival the child is bathed if necessary, but all wash their hands and clean their teeth, not so much to make them clean, but also to give them an interest in cleanliness. The Lecturer stated it was amazing the way the mothers responded—need for bathing getting less and less. In some cases the school bathroom is used by the whole family. Each child is allowed to choose its own picture by which its things are marked. Child is allowed to take as long as it wishes over hand washing, etc., as this is the education necessary at this age. After washing and hair brushing, the child chooses just what it likes to do. Flowers are arranged (flowers are always to be encouraged in Nursery Schools to teach the children the love of beauty) pets to feed and care for—gardening to do—toys to play with. Polishing, dusting, scrubbing, which they often choose, are the beginning of physical education, and promote co-ordination between the mind, the nervous system, and the muscles.

Opportunities to develop senses are supplied by handling and sorting things—by matching colours and so on. Child can go freely about and do what it wants, but things must be put away in cupboard before using fresh ones.

Lunch follows, children setting and waiting at meals. After lunch comes bed-time.

ADVANTAGES OF NURSERY SCHOOLS.

They provide: 1. Open Air life. 2. A healthy way of spending the day. 3. Ample space for actions of body to fullest extent. 4. Nutrition scientifically devised. 5. Well balanced day of rest and action. 6. Systematic medical supervision between baby-hood and school life. 7. Occupations suitable for the growing mind. 8. Companionship of other children under skilled supervision. They also do much to raise the standard of home life, and to give encouragement and demonstrations to parents.

Miss de Lissa asked Students to do all they could to bring forth "Nursery School Movements."

DIET FOR TODDLERS.

PROFESSOR V. H. MOTTRAM, M.A.

In commencing his lecture, Professor Mottram stated he was speaking mostly, as a result of theoretical knowledge, and also from the practice of his own children. Professor Mottram considered, between the ages of 9 months to 3 years was probably the most important years of feeding, when dietetic troubles will arise, both from growth—"starting things," and psychological points of view.

The effect of bad diet during the rationing period of war years has been shown during public school life, when it was noticed that the boys with fractured arms and collar bones were babies during the rationing period. At Christ's Hospital School, the heights and weights of the scholars were taken. It was noticed that from 1919 to 1929 the heights and weights of boys entering the school were below the average and that not until after 1929 did they reach normal. The Lecturer considers the diet of toddlers is one of utmost importance.

ESSENTIALS OF TODDLERS DIET.

1. Diet should be based on milk. The average consumption of $\frac{1}{8}$ to $\frac{1}{2}$ pint daily in this country is insufficient. Toddlers need about one pint daily, which covers the needs of body building, and gives sufficient mineral salts (excepting iron). 2. Vegetables are important source of iron—carrots give a high percentage of Vit: A. Potato is not of high value, but is, however, a source of Vit: C if properly cooked.

Toddler should not rely on milk as its sole source of protein, he should be trained to take a small amount of solid food from 6—7 months. Meat and fish should be introduced into diet from 9 months. Cheese is an important good food, and not used as much as it should. 3. 1—2 ounces of body building food, i.e., meat, eggs, fish, is necessary in toddlers diet—eggs form a good source, but are expensive. 4. Vit: ,

particularly "A. D. and C." are important. Vits: "A. and D." are missed in toddlers diet more than "C." Vit: "A" found in herrings (best source)—butter, milk, egg-yolk, carrots, and yellow fruits. Vit: "D." in egg-yolk. Cod Liver Oil supplies Vit: D, and lecturer approves of giving this as a food, and not as a medicine. Fruit juice, celery, water-cress, tomatoes, supply good Vit: "C." Professor Mottram considered cereals should be omitted from toddlers dietary, though it is very difficult to do so.

FOOD SUBSTANCES NECESSARY.

If child is physically and psychologically healthy its appetite is best guide as to how much food is necessary. Plenty of exercise and fresh air will stimulate the appetite. Anorexia, or hunger strike may result from parents "fussing over food." It is harmful to force a child to eat—camouflage and hypocrisy would be better. It has been proved that if child dislikes a new food, and a Cod Liver Oil Sauce is served with the food, it will be eaten without resentment on child's part if child was accustomed to Cod Liver Oil in infancy. It is of importance that a child of 3 years should be having a wide range of diet to safeguard its welfare throughout life.

THE PREVENTIVE TREATMENT OF CRIPPLING IN YOUNG CHILDREN.

A. ROCYN-JONES, M.B., B.S., F.R.C.S.

In commencing his lecture, Mr. Rocyn-Jones stressed the importance of Health Visitors, noticing any mal-formation of an infant, and the importance of early treatment. Lecturer stated there was a good deal of mis-conception as to the meaning of the word "orthopaedic." It was not, as commonly imagined, the straightening of the "foot," but of the whole body—its real meaning being "to make the crooked child straight."

Disabilities from which a baby may suffer: 1. Club-foot. 2. Congenital dislocation of hip. 3. Spastic paralysis. 4. Flat-foot. 5. Knock-knee, being the commonest defects.

Club-foot is a familiar deformity, in which there is an inversion and pointing of the foot. One must realise that treatment, in these cases, is gradual. Club-foot deformity is obvious soon after birth. Treatment is by strapping foot with Zinc-oxide strapping (less irritating to skin) 1—1½ inches wide. Before applying strapping the great toe must be brought in line with leg, apply strapping with foot in this position commencing at the inner border of foot, then on the sole, and up the outer side of leg. The mother must be taught to manipulate the foot, and strapping should be renewed twice a week. The deformity may take about 6 weeks to correct, and right angular splint should be applied afterwards. At 12 months the foot should be completely corrected, but boots

should be worn with wedge of leather on outer side of boot. In severe cases operative treatment may be necessary when child is 12 years of age.

Congenital Dislocation of Hip. This deformity more difficult to diagnose, but is noticed when child begins to walk, producing an unusual gait. This deformity is due to a mal-development of the acetabulum. Signs of Congenital Dislocation of Hip; 1. Shortness of limb. 2. Abduction of thigh on dislocated side is not as satisfactory as on the normal side. 3. Hollow below Poupart's ligament can be felt showing an absence of the head of femur. This deformity is much more prevalent in girls than boys, and both hips may be affected. Deformity can be either unilateral or bi-lateral. X-ray examination is always necessary to diagnose condition.

Treatment of deformity. 1. By manipulation under anaesthetic. Child must wear a plaster of paris cast for 3 weeks. After 3 months the thigh is brought down. Treatment will take 9-15 months. In severe cases operative treatment is necessary. Untreated cases have ugly gait, and in later life deformity becomes painful.

Spastic Paralysis usually causing a good deal of limb spasms. The heels are raised, knees flexed and limbs cannot be separated. The degrees of disability vary—in severe cases the child is unable to stand.

Treatment. If child shows any inclination to walk much can be done by operative measures, but success cannot be ensured in mentally defective children (which is a frequent accompaniment of lordosis). The aim of operative treatment is the restoration of muscle balance, by reduction of spasm in the afflicted muscle. At end of 6 weeks child is taught to walk, and after 3 months of exercises should walk quite well. Birth Palsy varies in degree but frequently whole limb is involved. *Treatment.* The limb must be put to rest in an abducted position. Splint should be worn for about 18 months, and massage is necessary. Large number of cases make a complete recovery, but it is essential that treatment should start at once.

Disabilities occurring after birth.

Flat-foot: In this deformity the longitudinal Arch is abolished and heel is everted. *Treatment.* In simple cases exercises are beneficial. The mother should be taught the exercises, so that she knows what should be done and supervise the child. It is useless to leave the child without supervision. Boots are worn with wedge ¼ inch thick on inner side, and a small pad inside boot will keep the arch raised. In severe cases an iron should be worn.

Knock-Knee is common in young children, and is due to the stretching of ligaments on inner side of knee joint. The degree of deformity is measured by the distance between the inner ankle bones when the knees are touching. *Treatment* is by exercise and wearing of corrected shoes. In severe cases operation may be necessary. *Bow-Legs* may result from rickets. X-ray will show if rickets is present and case treated. Operative treatment is usually the best way of dealing with this deformity.

SECTION III. HEALTH:—THE KEY TO KNOWLEDGE.

DANGER SIGNS OF FATIGUE IN SCHOOL CHILDREN.

MISS HAZEL H. CHODAK-GREGORY, M.D., M.R.C.P.

The lecturer described the term "Fatigue" as over-tiredness, but she considered it rather an indefinite word. A child rarely complains of fatigue, therefore it is of importance that we should "look-out" for such cases.

Physiology of Fatigue.—1. Nerves and muscles being closely allied, must be considered together. Muscles cannot work without some nerve impulse. When chemical reaction takes place, (muscles cannot retract without using up oxygen and glucose) it produces lactic Acid and Carbon-di-oxide. If movement is followed by period of rest, the lactic Acid and Carbon-di-oxide is carried away. An involuntary muscle, i.e., heart, has not the same amount of rest as the voluntary muscles, consequently the rest time for heart muscles must come between two contractions of heart.

Child's Muscles are given two kinds of work to do: 1. Violent exercise. 2. Sustained exercise. In violent exercise every part of the body is brought into play, and contraction and relaxation of muscles occur rapidly. To accelerate the circulation, the heart has extra work to do—the lungs react by quicker respiration. The endocrine glands and skin also take part. If all organs of the body take part (as they should) in this a good deal of violent exercise can be taken without fatigue.

2. *Sustained Exercise.* Muscles have to be continually carrying out sustained moderate exercise. Standing gives the muscles increasing amount of work to do. Sitting can be almost as tiring as standing, consequently child can get very tired at school—lecturer considered "flopping" on the floor the most natural position, and should be encouraged in young children whenever possible and these periods of complete relaxation are very important.

The lecturer emphasised the importance of frequent rests. As muscles and mind tire more easily after prolonged work periods and recover more slowly a school child needs short periods of work and rest. A child on leaving school gets very tired, particularly if employed in a shop. A form of violent exercise, i.e., Gym, dancing, etc., would relieve the tiredness.

Needs of School Child. Adequate. 1. Food; 2. Sleep; 3, Fresh air; 4. Clothing.

Food. Very few children are starved to the point of hunger, but we must realise comparative starvation occurs in the fact that the child does not get the right kind of food.

Signs of Deficiency in Diet. 1. Rickets—can be cured by sunlight and Vit. D. 2. Anaemia. 3. Dental decay. 4. May be wasting.

Clothing. Lecturer considers this still unsatisfactory, in spite of welfare and school work. Tight stays are still being worn, and child is covered with several layers of cotton and flannelette garments. Fatigue in children can be accentuated by too many clothes.

Sleep is necessary, and yet so many children go to bed at late hours. Late bed-time results in late rising and without time for daily evacuation of bowels. After breakfast is the best time for these evacuations.

Fresh Air is the most important preventive against fatigue. More oxygen is obtainable and muscles are able to work harder and longer, without fatigue. Open Air schools would be ideal for all children.

Mental strain (fatigue) often occurs in children of poor intellect

Signs of Mental fatigue: 1. Child become fidgety. This must not be confused with chorea. In chorea movements are planless—no true jerki-ness is noticed—child has no control over its movements. In mental strain the movements are constantly repeated—twitching of eye-lids—child can control its movements.

Lecturer asked that Social Workers should look out for eye strain in children. If child suffering from eye-strain is sitting in back row of class, errors in work will be noticed—child holds books close to its eyes and there may be continued styes.

Causes of Headaches: 1. Eye strain. 2. Constipation. 3. Anaemia. 4. Kidney disease. In conclusion Dr. Chodak Gregory stated it was preferable not to attempt to teach a child to breathe. Very few people know how to teach it in right way, and as a rule more harm than good was done. A child breathes naturally better than adult, and to encourage proper breathing violent exercise should be taken. If child has an obstructed naso-pharynx let child breathe through his mouth until the defect is removed.

MENTAL HYGIENE IN CHILDREN.

W. MOODIE, M.D., M.R.C.P., D.P.M.

In beginning his lecture Dr. Moodie stated the term "Hygiene" means "Health" but it has come to be used as "maintenance of health and prevention of onset of disease," and this applies to mental as well as physical health. Living conditions are very far removed from any natural state and present day life is such that no person can be actually healthy in every way. Health of mind is distinctly important. Lecturer stated among any group of ordinary persons, such as those collected in the Lecture Hall at present, there are sure to be many people suffering from minor or unrecognised mental disturbances.

Research by Industrial Research Board discovered that among apparently normal people 50% had symptoms of nervous disability which were so slight as to pass unnoticed but nevertheless impaired the efficiency and happiness of the individual.

Recent observances in the knowledge of mental disorders has shown that these have their beginnings in childhood in almost every case.

Since the War there has been a very marked change in the handling of children. In the attempt to eliminate the bad effects of the stern discipline of the last century parents and teachers have attempted to give children too much freedom. This change, the lecturer considered, has not been good, and has actually made things more difficult both for parent and child. Child is left to himself, and parent loses his instinctive happiness of caring for the child. Parents have an instinct, born in them, to look after child, whilst child has born in him an instinct to be guided. In dealing with mental hygiene, one must realise the parent and child have this relationship to each other. General principles are laid down for child's physical health, and same should be done in the case of mental hygiene. It is necessary to work on general principles, and not merely to attack symptoms. It is known that most bodily illnesses improve without treatment. 90% of cases met by doctors improve whatever is done, and 6% die. To treat symptoms may be valuable, but patient is not cured. This is also the case with mental hygiene.

Symptoms can be cured or helped, and situation clears up, but, lecturer stated, persons dealing with mental hygiene must be prepared for failure.

In behaviour problems the treatment lies in tackling the cause of problem. Ordinary "training up-bringing" problems which have been mis-handled often occur and which become problems of training. It is comparatively simple to find out whether problem is one of training or not. In ordinary training problems no other signs of nervous disturbance are noticed. A behaviour problem shows other signs of disturbance, e.g., stealing, enuresis, thumb-sucking. Four or five signs of behaviour disturbances will be seen concurrently in the problem child.

Attitude to discover what is behind problem. Indiscriminate application of psychology produces a great deal of confusion. Tackling of these problem cases must be done in a broad way. Behind the vast majority of problem cases is the lack of completeness in their lives. *Complete life* is one in which we engage in a reasonably healthy activity in all aspects of life. A child requires a world in which to live filled with things to work with and people giving a reasonable amount of affection and love, and he requires activities to enable him to expend his energy. He also needs intellectual pursuits. In lecturer's experience, one must when faced with these problems, balance all these things. If these things are not present one gets an unbalanced situation, and child becomes tense and filled with energy he cannot expend, and energy will come out in some other way. Behind majority of problem difficulties in children, is a state of tension due to wrong balance in life child is living, and amount of energy he is allowed to give off. A child of this type is

nervous, excitable, fearful and inattentive. He lacks concentration and tends to be clumsy.

Tension Situation is merely an accumulation of mental energy and an under expenditure of energy. Child becomes "keyed up"—excitable—irritable and cannot settle down. The situation goes on until the anxiety is removed. This condition is very like anxiety, a state familiar to every adult.

Two sides to this problem. 1. Why tension exists. 2. How it escapes. This latter depends upon child's upbringing. The question of problem difficulties depends upon the individual tension. To remove problem it is necessary to find out why tension exists by going carefully into person's potentialities.

Analogy between Mental and Medical Cases. A person may develop paralysis of hand, due perhaps to the nursing of an invalid father. This paralysis is of the hysterical type and develops because she does not wish to nurse her father. Patient will not realise this link, and will readily believe condition may be due to an injury to shoulder received whilst lifting her father. Relieve the patient of the necessity of nursing the father and the condition will improve. A child may steal to make up for some disappointment or unhappiness, but he is just as unconscious of the connection between the stealing and the unhappiness, as the hysterical patient of the cause of her paralysis.

In most cases the tension occurs in the sympathetic nervous system, and that is one reason why bed-wetting is common in anxious children.

In conclusion the lecturer stressed the importance of always removing the cause of these problem cases, and not to tackle the symptoms only, if results are to be successful.

SCHOOL HYGIENE.

R. A. LYSTER, M.D., D.P.H.

Lecturer stated that School Hygiene included the health of the child from every aspect, and Dr. Lyster considered that School Hygiene should take its place among subjects of national importance, at least as important as Ante-Natal and Infant Hygiene because it is more immediately practical. Although of such importance School Hygiene is a matter of recent growth, and before 1905 health of school child did not receive much attention. Then 1907 saw the present system of medical inspection of school children. The main reason for its introduction was that there were many children in such a condition, that they were unable to take advantage of the education provided, at great cost by the State, and another reason was that obviously it was cheaper to prevent disease than to cure.

Public Health must be "one whole and indivisible." If kept in water-tight compartments the work deteriorates. Evils of unnecessary "specialism" are conspicuous in those areas where health work was divided up in such a way as to obscure the essential foundation of prevention.

In dealing with School Hygiene the lecturer stressed the importance of the co-operation of the teacher. The Head Teacher, in the eyes of the law, legally represents the parent. For successful health work in schools it is therefore essential that a thorough knowledge of hygiene should be part of the foundation of a teacher's training.

School Hygiene can be divided into four sections: 1. School buildings and playground (an essential beginning); 2. School fittings and equipment; 3. Children as Individuals; 4. Condition of Teachers. "Teachers," said Dr. Lyster, "sometimes get over-looked in Health matters." He recalled an outbreak of diphtheria repeatedly occurring in a school. Throat and nose swabs were taken of children, and positive and negative cases were separated. School was closed, and on re-opening fresh cases occurred. A teacher was found to have been a diphtheria carrier, and no-one had thought of swabbing the teachers as a possible cause of outbreak.

In dealing with subject of the child two problems have to be determined; 1. Is child physically fit to enable it to take advantage of education; 2. Is child fit to associate with other children.

Physical Fitness. Text books, the lecturer stated devote long pages to physical exercises. In the lecturer's opinion formal drill was not so beneficial as was popularly imagined, and he considered such drill in schools an un-mitigated evil. It is fatiguing to mind and body. Year after year the Board of Education had issued long syllabuses of drill and exercise but games were now coming into their own. Organised games are much more beneficial, but no result can be forthcoming even from that form of exercise unless child's condition is satisfactory to enable it to derive full benefits from it. The fundamental point is that the child must be well nourished.

Nutrition of Children in Schools. The proportion of children suffering from mal-nutrition in schools is increasing alarmingly. Under education Act a local authority must provide free education for the children, whereas a charge must be made (in theory at all events) for meals provided under the same Act, at School. This the lecturer considered was entirely wrong. In his opinion education was comparatively a luxury while food was of vital necessity. Education Act also states "Local Education Authorities may provide meals if any child is found to be under nourished," and yet only half of L. E. A. in the country supply such meals. In London 51% of children are given free meals, and in other provincial boroughs where meals are provided 93% of children receive free meals. Unfortunately only 10% of entire school population is provided for in this way. Milk clubs are organised in some areas, the cost being 1d. for one-third of pint per child. 800,000 children are having milk in this way. The Milk Marketing Board have announced that by next Spring a surplus of 40 million gallons of milk is expected, per month. This surplus milk will be sold at about 3¼d. per gallon, and yet, stated Dr. Lyster, a child is charged 1d. for one-third pint. How cheap and easy it would be to give milk as freely as possible.

Cleanliness is of extreme importance when dealing with School

Hygiene. In 1905 Schools were found to be verminous. Over 90% of girls were in verminous condition, and the proportion of verminous boys was smaller and variable. Verminous condition still exist in some schools to-day. The lecturer considered a child verminous if only one nit was found. No other standard could result in really clean schools. *Administrative Method of Cleansing.* 1. Notice is sent to parent for cleansing of child within 24 hours. If this is not done child can be taken to Cleansing Station. 2. Exclusion of child from school until clean. Parents, in this case, can be summonsed under attendance by-laws, but, for success in this system active co-operation with school-teachers is necessary.

Infection. Cleanliness is closely related to infection, and many infectious diseases are now known to be spread by vermin. Speaking generally, school closure was a stupid un-scientific way of dealing with infection, the lecturer considered children are sent home, and nothing is known of their degree of infection.

School fittings and Equipment. Desks. No child should sit for long periods in any desk. The maximum period should be 1 hour. No desk is suitable for longer use than one hour at a time. The provision of SINGLE SEATS is desirable whether the desks are single or multiple.

School Buildings are an important factor in School Hygiene. Magnificent schools are now being built, but in country areas a large number of old buildings are unsuitable and are in bad condition. School conditions are of the utmost importance for the mental and physical education by providing healthy surroundings during school life. It was a disheartening experience for a School Medical Officer to find an enthusiastic teacher giving a lesson on hygiene in bad surroundings.

The lecturer, in conclusion, gave what he termed the "Ten Commandments for schools": 1. Sanitary buildings should be in good repair—no dampness—no possibility of gross defects. 2. Adequate supply of good water. 3. Adequate lighting, heating and ventilation. 4. Ample clean warmed and ventilated cloakrooms. Washing accommodation should be provided. 5. Closets—should be decent, sanitary and effective and show evidence of frequent and regular supervision by teaching staff. 6. Suitable desks. 7. Floors, walls and ceilings reasonably constructed and clean. 8. Playground with area and surface suitable for organised games and physical training. 9. Pencils, pens, and crayons must NOT be used in common, but be the individual possession of children. 10. Close supervision of drinking water and vessels, and, where possible, a continuous drinking fountain should be provided. Paper drinking cups are ideal where the modern drinking fountain cannot be provided.

PREVENTION OF DAMAGE FROM INFECTIOUS DISEASES.

H. STANLEY BANKS, M. A., M. D., D. P. H.

LANTERN LECTURE AT PARK HOSPITAL—HITHER GREEN.

Isolation of the *endemic* infectious diseases, Scarlet Fever and Diphtheria, over a period of many years in fever hospitals, has failed to reduce materially their incidence. These diseases may be spread in the community from many unrecognised sources. The effective function of fever hospitals is to provide nursing care and skilled medical treatment, so as to prevent as far as possible, death and permanent damage to health. The first important factor in the prevention of damage from infectious diseases is, therefore, the provision of well equipped hospitals with all facilities for modern treatment and for access of patients in all stages to the open air. The second factor is the skilled use of serum in treatment.

Toxic or malignant diphtheria is generally a fatal disease unless treated very actively with large doses of serum given intra-venously. It may be necessary to give as much as 150,000 units in a single dose, to very severe cases with extensive spreading membrane, "bull neck" etc. The average annual death rate from diphtheria in one hospital was reduced from 9.3% to 3.5% following the introduction of this intensive serum treatment.

Scarlet Fever is less severe in type than it was a generation ago, but is still responsible for much damage to health, especially by way of discharging ears. The serum treatment of scarlet fever, if pursued intensively is gratifying, especially in severe cases. The best results are obtained by intra-venous injection of the serum, with special precautions in the selection of cases. Up to the present, few hospitals care to take the risk of intra-venous injection on a large scale. The lecturer has so treated 2000 cases in the last six years and is well pleased with the results. The acute stage is cut short; patients feel well after a few hours and are allowed up about the 5th day from admission and discharged home in about a fortnight. There is no desquamation, as a rule, if the serum is given on the 1st to 3rd day of disease. Complications are exceedingly few and trivial in character. "Return" cases are less than the average.

Cerebro-Spinal Fever is a very serious disease and should always be treated intensively by serum. In addition to lumbar puncture and intra-theal injections, it is generally necessary to give large doses of serum intra-venously, sometimes as much as 150 c.c. at a time. In young infants intra-peritoneal injection is sometimes done.

In *Measles* human serum is used not for treatment, but for prophylaxis. For this purpose blood is taken from Measles convalescents from 7th to 10th day of normal temperature. It is difficult to secure an adequate supply of convalescent serum, and now serum from any adult who has had measles is being used. Adult serum, has, approximately, half the power of convalescent serum for producing an attenuated attack.

From the point of view of prevention of damage, an attenuated attack is desirable as there are no complications, and at the same time the child becomes permanently immune to measles. The dose of convalescent serum for a child under three years of age is 5 c.c. and of adult serum 10 c.c., and the time of injection after exposure varies according to whether complete protection or attenuation is desired. The chief damage from Measles and Whooping Cough is the production of bronchiectasis in later life, and also of chronic otorrhoea. In order to prevent the former, all cases of measles and whooping cough with pulmonary complications should be treated for a prolonged period (e.g., 3 months or more) under open air conditions after the cessation of the acute attack. Hence the importance of open verandahs in hospital wards. In order to prevent chronic otorrhoea, great efforts should be made during the first few weeks after the commencement of ear discharge to clear up the condition. For this purpose very frequent and skilled mopping of the ear is required, and zinc ionisation during this stage has been found to be extremely helpful in all but a small minority of cases.

Dr. Banks considers that, in general, the prevention of permanent damage to health from infectious diseases depends upon active and thorough treatment during the acute stage.

SECTION IV. HEALTH: THE KEY TO CITIZENSHIP.

POVERTY, NUTRITION AND THE PUBLIC HEALTH.

G. C. M. M'GONIGLE, M.D., B.S., D.Hy., D.P.H.

It is extremely difficult to assess the relationship between poverty, nutrition and the public health. It might well be expected that a state of poverty would exert some influence upon the nutritional state of families in which the weekly income is so low as to render a reasonable standard of living difficult or impossible; and, further, that poverty and nutrition would have some influence upon public health.

You, as field workers in public health, who actually visit the homes of the people are familiar with the difficulties with which the housewife has to contend, but you would not find it easy to establish and use a social tape measure by which these difficulties and their resultant ramifications can be measured.

One of the major difficulties in the assessment of the effects upon public health of poverty and variations in the nutritional states lies in the fact that families suffering from the ill effects of poverty are almost inextricably mixed with others of the population who are somewhat better off. In a single street one may find every graduation from comfortable financial circumstances to virtual destitution. Even the amount of money per head entering a house is no sure guide to the economic condition of the family for such necessary outgoings as rent, travelling expenses, etc., may vary enormously. It is only by a somewhat complicated procedure of ascertaining the amount of money available per 'man unit' for the purchase of food that one can form an estimate of whether a particular family is, or is not, in a position to purchase an adequate diet. Further the price of foodstuffs varies according to the season and place. It is no simple matter even to assess whether a family is poor, from a food purchasing point of view, or not.

When this first hurdle has been surmounted others are soon encountered. One of the highest is that of assessing the nutritional condition of the individual members of the family. Even in child welfare centres, the mere weight of an infant on any particular day is no guide to its nutritional state. An infant of six weeks old weighing 9 lbs. may be well or ill-nourished. If it weighed $6\frac{1}{2}$ lbs at birth it has probably made good progress, but if it had weighed 10 lbs. at birth it is probably doing badly. The point the Lecturer wanted to make clear was that a single isolated weighing of an infant tells us nothing as to its nutritional condition. In the case of older children a consideration of the ratio

between height, weight and age is likewise of questionable value. A child may be of normal height and weight and yet be suffering from active rickets which is a disease of nutritional origin. In the case of adults the difficulties are greater than ever. A housewife may suffer from anaemia and debility but it is difficult to determine whether this is a primary anaemia, an anaemia secondary to chronic uterine trouble or pyorrhoea, or whether it is an anaemia of nutritional origin. Heights and weights do not give much assistance in these cases. The guiding principle which we must keep before us is that malnutrition does not necessarily mean a shortage in the total quantity of food. If one fed an individual on a carefully thought out diet containing the correct proportions and quantities, so far as we know them, of first class proteins, fats, and carbohydrates, with an adequate supply of vitamins and minerals, we would expect that person to continue in a state of normal nutrition. If we reduced every constituent of the diet by, say 30%, we might expect some loss of weight and the person might be described as under-nourished. If, on the other hand, we reduced some constituents by 60%, others by 50% and increased the carbohydrate to an amount which gave sufficient calories to avoid a sensation of hunger, we might get very little loss of weight, but we would expect to get some evidence of malnutrition. Rickets or scurvy, in extreme cases, might develop. It might be anaemia and in addition there might be a lessening of the powers of resistance to certain infections.

It is unfortunate that, as a general rule, the valuable proteins and fats which contain vitamins are much more expensive than are many of the carbohydrates.

The lecturer added a word of caution here. If an individual is suffering from an ill balanced diet which contains a shortage of first-class proteins, of fats, of vitamin D and of minerals, that bad diet can not be made into a good one by the mere addition of one of the deficient constituents such as Vitamin D.

The principle factor in the causation of rickets is deficiency of Vitamin D. In the laboratory when dealing with animals, rickets can be produced and cured at will by controlling the amount of Vitamin D given in the diet. Cases of rickets so caused may be called "pure rickets." In the case of children whose food supplies have induced rickets, the condition found is not pure rickets, but is rickets plus an excess of carbohydrate, plus a shortage of fats or proteins, plus possibly half a dozen other excesses or deficiencies. To supplement the defective diet with only one factor is not sound preventive medicine. Economic conditions may force us to do so but such practice is fundamentally unsound. Dr. M'Conigle endeavoured to assess the factors which might cause physical defect in young children. With the assistance of a very able statistical expert, Dr. P. MacKinlay, we analysed over 700 child welfare charts and health visitors record cards. We worked out the statistical correlation between all sorts or factors recorded, we took overcrowding and we worked out the correlation between that factor and the various defects commonly found in young children. We worked out such things as the incidence of bronchitis in large and small families, of weight and dental

decay and many other conditions. We found that the most consistent and notable mathematical correlation of any which we discovered was present in the association between physical defects and what had been recorded as unsatisfactory diet. Physical defects appeared to be much more closely associated with unsatisfactory diet than with such conditions as overcrowding, size of family, or even general maternal efficiency.

In the past much has been attributed to maternal efficiency and inefficiency, and, no doubt, correctly, but it appeared to the lecturer that what has often been described as maternal inefficiency should more correctly have been attributed to poverty and inability to purchase an adequate diet for the family. In his experience of the working housewife he had found her to be, speaking generally, extraordinarily efficient and she, if given reasonable environment and reasonable purchasing power, can effectively rear and nurture her family.

It now appears that the incidence of physical defects in children is somehow associated with nutrition.

Can we show that mortality rates may be associated with similar factors. By indirect evidence we can. It is not unreasonable to state that a girl of three years, who has active rickets may twenty years later present a difficult problem to the midwife, when faced with delayed labour, due to contracted pelvis, with associated danger to the mother and the possibility of a damaged or dead infant—or the adenoidal child may develop otorrhoea, and the risk of an acute mastoid inflammation. But something more than mere indirect reasoning is wanted. We want direct statistical evidence.

Some years ago Dr. M'Conigle had the opportunity of making an intensive study of two groups of people. There existed in Stockton-on-Tees a slum area which the Town Council decided to demolish but, on account of its size, one portion was done at once and the other portion at a later date.

One area was demolished and its population, something over 700 people, was rehoused in a new, self-contained housing estate specially built for the purpose. The other portion of the old area containing rather more people, remained in its original state. For five years he kept very careful records of these two populations. Both sets of people were very poor, and the incidence of unemployment among them was very high—being as much as 90%. During the five years subsequent to the removal of the one population to good housing conditions, the death-rates changed considerably. In the case of the population left in the slum there was no increase in the death-rate. There was actually a slight decrease. In the case of the population moved to the new housing estate there was a mean increase in the death-rate of approximately 50%. This increase could not be caused by absence of overcrowding, by good sanitation, by baths, by foodstores, or by increased air circulation and sunlight. 90% of the wage earners were continuously or almost continuously unemployed.

During investigations, careful records of family incomes, rents, and budgets were kept in both areas. Every penny of expenditure in a certain

number of families in each area was recorded—each item of food was taken into account and the key to the problem was found. The average rent of the families in the new estate was 4s. 6d. higher than those of the remaining slum area. The values of the foodstuffs purchased in each family was assessed in terms of calories, proteins, fats and carbohydrates, and it was shown the families in the new estate had, by reason of the increased rent, to make shift with few calories and fewer grammes of protein, etc. The actual amount of money per head available per week for food was under 3s. The slum dwellers, by reason of lower rents, fared better, though their diet was markedly lower than the accepted minimum.

No other explanation has been put forward to account for the increased death-rate of the new estate dwellers, than that it might be attributable to low food purchasing power.

The recently published report of the Nutrition Committee set up by the British Medical Association has laid down certain minimum standards of food to maintain health and working capacity. It must be borne in mind that these standards are minimum standards, and would probably be insufficient in the case of a man doing strenuous work. With prices of foodstuffs at the level of last June it required a minimum of 5s. 10d. to purchase the food required by a 'man' for a week. Local variations in prices will alter this figure. Yet the people moved from a slum area had available only 2s. 10d. per week for food instead of 5s. 10d.

The Newcastle Dispensary has just published a report upon an inquiry into the Diet and Household expenditure of Unemployed Families. In this inquiry it was found that unemployed families living in slums, with very low rents, have available 3/5d. per 'man' per week for food, whilst unemployed living in a new housing area with higher rents had available for food 3/1½d. per 'man' per week.

At recent meeting of Ministry of Health it was laid down that 3,000 calories per day are required. In replying to the Ministry's figure, the lecturer stated he was in no way criticising the Ministry, but, in the opinion of the Nutrition Committee of the British Medical Association, 3,400 calories would be a better figure to allow for wastage.

The provision of school meals and of milk for school and younger children may help a little but the basal trouble is simply lack of adequate purchasing power on the part of our unemployed. The tragedy lies in the fact that these unfortunate people have to economise on food and this is detrimental to their welfare.

THE RELIEF OF POVERTY IN CENTRAL EUROPE.

MISS A. SAYLE, M. B. E., M. A.

Miss Sayle stated that the title of her lecture occurred to her whilst visiting Central Europe last June, since when she had collected information bearing on conditions of life, rates of wages, rents, and methods of Public Assistance, though this information was by no means complete.

In speaking of the relief of poverty, one must make certain preliminary assumptions. 1. There must be some standard by which poverty is measured. 2. Some principles must be held by those who decide how the poverty is to be relieved. These principles vary considerably.

What is Object of Relief. 1. Is it to keep person alive, or 2. Is it to restore him to his former efficiency of mind and body, or 3. To increase his efficiency as a worker. Is the relief to be given directly or indirectly, or is he to be given money in recognition of work done by him. Is poverty to be regarded as the responsibility of the individual, which he could have avoided, and the relief made as deterrent as possible, or can poverty be regarded as the responsibility of the nation? If it is regarded as a national responsibility then the relief of poverty will be regarded as of much less importance than its prevention.

The 1830 reformers of our own Poor Law, confined themselves strictly to the relief, rather than prevention of poverty.

In all Central European Countries measures exist both for the relief and the prevention of poverty. In Hungary and Czecho-Slovakia, it is probably true to say poverty is relieved by the provision of food, shelter and clothing. In Germany and Vienna, the authorities have been occupied in preventing the occurrence of acute poverty. Germany has done pioneer work in attempts to prevent destitution by means of social insurances, and to relieve poverty by public and private assistance. The principles applied in Germany, to the relief of poverty, have changed markedly since the war. Before the War it was assumed that every able-bodied man could maintain himself and his family and if he failed to do so it showed a failure to fulfil a "moral responsibility." Each case was dealt with individually. Since the War, poverty has been regarded as a national problem. Old persons are cared for in large residential homes.

Vienna has a large Municipal Maternity Hospital, where 60% of the patients come from homes financed entirely from Public Assistance. In Budapest are hundreds of one roomed flats occupied by destitute people. Food is supplied and cooked in large "general kitchens." Clothing is of the meagrest. Money allowance is given corresponding to 7s. per month, per family, in English money, but not continuously.

Miss Sayle stated that the following figures were an attempt to show the standard of living of an unskilled labourer. All wages represented a full working week. The actual figures for Vienna are probably lower than those given and for Budapest possibly higher:

Country	Gross Wages	Rent	Insur.	Total	For Food & Clothes
Nuremberg	28/-	4/-	3/-	7/-	21/-
Vienna	36/6	2/-	3/-	5/-	31/6
Budapest	16/-	?4/-	3/-	?7/-	?9/-
Prague	25/-	?8/-	1/-	?9/-	?16/-

In first three countries it will be noticed that insurances are high, and that the method of preventing distress in these countries is by insurance.

Insurances are proportionate to rate of wages received. Rate of cash sickness benefit is taken at half rate of wages. Maternity benefit to insured women is paid for four weeks before confinement and for six weeks after it, with a breast-feeding benefit, and a cash payment at the time of the confinement in addition. The Government contributes to disablement and Widows' pensions. Burial benefit is equivalent to 30 days wages. Medical Sickness benefit includes free medicines, dressings, etc. For sickness benefit if treatment in hospital is necessary, the Insurance Societies pay hospitals up to 3s. per day for treatment, the family being entitled to a quarter of his usual wages. Czecho-Slovakia is the only one of the four countries which does not deal with unemployment under insurance schemes.

Relief of Poverty by Public Assistance.

In Nuremberg, and probably elsewhere in Germany, unemployment pay lasts only for 6 weeks, after which relief can be given in money or kind. Rate of relief is 8/6 per week for a single person—if not a member of a family. Relief in kind is much wider than in England and can be given in form of food—clothes—boots and shoes (and for mending), hospital and convalescent treatment, furniture, etc. The idea of relief is to maintain the family outside institutions.

The idea in Vienna is to raise the standard of life. Housing accommodation has been improved and rents drastically reduced. 64,000 flats and houses have been built, the money raised by means of housing rate, which is 2% of pre-war rent, on graduated scale. Children are regarded as Vienna's responsibility, and over 100 Nursery Schools have been provided. A central Children's Receiving Home has been established, in which children remain for three weeks. Children are then boarded out to foster mothers, and problem cases are sent for special observation and Child Guidance for six weeks.

Budapest has suffered more from economic depression. School leaving age in Hungary is 12 years, but children are compelled to attend continuation school for one morning per week. Relief is given in form of residence in one room wooden building, and food, but little money is given. Destitute children are cared for in institutions.

In Prague, maintenance is provided for old people, mentally defectives and delicate children, in separate blocks of one large institution, the Masaryk Homes.

In conclusion lecturer stated in Nuremberg and Vienna the idea appeared to be the prevention of poverty, whilst in Prague and Budapest effort was made to relieve rather than prevent distress.

THE PREVENTION AND TREATMENT OF TUBERCULOSIS.

R. HILTON, M.A., M.D., F.R.C.P.

Tuberculosis is a preventable disease, and yet thousands die of it every year. A tuberculous person who coughs sprays out thousands of tuberculosis germs every time he coughs. These germs float about in tiny particles in the air we breathe—in clothes—in dust. Tuberculosis is INFECTIOUS, and is fostered by wrong environmental conditions, such as over-crowding. Tuberculosis cannot develop unless the tubercle bacillus finds entrance to the body.

Experiments have proved that if a person suffering from tuberculosis coughs at a perfectly healthy guinea-pig the animal will die of the disease in a short time. The lecturer considered it a remarkable thing that one can be fined £5 for spitting on top of a bus, and yet a person can cough in your face, in the tube, for nothing.

Tuberculosis germs can attack any part of the body, but lungs and glands are the commonest sites.

If germs entering lungs are few, they may be made captive, doing relatively little damage. About 90% of inhabitants of towns come into contact with the germs of Tuberculosis, but given normal conditions of living, they can resist the attack. A tuberculosis patient is none the less infectious because he or she does not know that he is suffering from the disease.

Whether or no a person gets tuberculosis depends on:—1. Size of dose of tubercle bacilli. 2. Power of resistance to disease. Health Visitors are indispensable in giving information regarding source of infection. Any person having a cough for more than two weeks should be medically examined.

1. *Size of Dose.* The lecturer stated that each one of us get small doses of tubercle bacilli, but, due to our power of resistance, we do not develop disease. A person getting repeated large doses will develop tuberculosis. The mother with tuberculosis of the lungs should not come in contact with her baby, and it is of the utmost importance that anyone with a cough, dealing with children, should be examined for tuberculosis. Kissing of children and people on the mouth—habitual attendances at cinemas and spitting, are all sources from which persons can derive tuberculosis.

Resistance is much improved if general hygiene is good, e.g., wet feet, and poor food have effect upon resistance—a child's resistance is lowered after an attack of measles, or whooping cough.

Tuberculosis begins insidiously, but, nearly always, a cough is present. The disease can only be definitely diagnosed by presence of T.B. germs in sputum.

Bovine tuberculosis is carried in milk from an infected cow. If the milk is spun in a centrifuge pus will be found at the bottom. About one quarter of all cases of tuberculosis, in children under 5 years, and nearly half the cases of tuberculosis of the glands, bones and joints come from

milk. It would be comparatively easy to stamp out this form of tuberculosis if all milk was universally pasteurised. In countries where no milk is taken bovine tuberculosis is unknown. Milk is a popular source of food in England, and Dr. Hilton urged the importance of boiling ALL milk before consumption—any slight deficiency in food value can be made up by taking other food. If this were done, bovine tuberculosis would be stamped out.

Increase resistance by 1. Plenty of fresh air is important. 2. Avoid chills. 3. Plenty of good food.

Treatment of Tuberculosis is best carried out in sanatoria, where the body can be put into a state of rest, and where adequate diet and plenty of fresh air is obtainable. The sanatorium also trains the patient how to live in future, gives expert medical attention at any time. Artificial-pneumo-thorax treatment can be used, and is very beneficial, but the treatment must be carried out regularly, and Health Visitors can do much to see that patients re-attend for refills at times stated by the doctor.

Dr. Hilton considered the trouble with disease was that patients do not go to a doctor in early stages of disease, and in conclusion he added he looked upon Public Health Workers as apostles who preach the gospel of "prevention of tuberculosis" to people.

VENEREAL DISEASES.

T. ANWYL-DAVIES, M.D., B.S.(Lond)., M.R.C.O.(Lond).

Lantern Lecture given at the Medical College of the London Hospital.

Health being the "Key to Citizenship" the diagnosis of venereal disease is an important one, particularly as the disease is definitely curable if treated in time, and arrested even in late cases. Women Public Health Officers can do much to secure the early diagnosis and treatment of venereal disease by securing the investigation of all discharges of the vulva,

Syphilis. The most important point concerning this disease is that, in 44% of the cases in women, the chancres or primary lesions are found on the cervix. They are painless and can only be discovered by examination. In this fact lies the greatest danger of infection. In 39% of cases the chancre appears on the vulva.

STAGES OF SYPHILIS.

1. *1st Stage*—primary lesions appear on any part of body—are painless and have a clean cut edge—only chancre is infectious.
2. *Secondary Stage*—very infectious—rash appears—condylomata or warty like growths of a coppery beefy hue are characteristic.
3. *Tertiary Stage*—not so infectious—gummatous ulcers appear leaving a scar with clean cut edge—not with irregular ragged edges as in varicose ulcers. The syphilitic scar if pinched, resembles tissue paper.

CONGENITAL SYPHILIS.

Symptoms. Saddle nose—the spirochaete attacks the mucous membrane, and then the septum supporting the nasal bones, thus causing the “dropped nose.” The average case looks healthy when born—towards end of first week there is loss of weight and snuffles—rash appears with the development of sore buttocks.

Interstitial keratitis. One of the later signs of congenital syphilis. Both eyes are affected though one may start first. Eyes become red and painful, and occur mostly at 7—14 and about 20 years.

Treatment of syphilis is by injections of arsenic, and after two weeks treatment a patient is non-infectious although treatment must be continued over a long period for complete cure.

Gonorrhoea, causes redness and discharge; but no ulcer. Any case of vaginal discharge should be microscopically examined. Blood tests are essential for both syphilis and gonorrhoea. Smear tests are also taken for gonorrhoea. If only a smear is taken gonococci will be present in 12—15%. In a culture test 60% will prove positive, but a gonorrhoeal Fixation test will reveal 78%. Treatment of gonorrhoea must be given by experts and consists of douching and insertion of plugs.

DATA *re* SYPHILIS.

In 709 pregnancies before treatment 50% born unhealthy.
305 pregnancies after one course of treatment 30% born unhealthy.
305 pregnancies after more than one course 3% born unhealthy.

SOME ASPECTS OF THE LAW REGARDING
PARENT AND CHILD.

MRS. CROFTS, M.A., LL.B., A Solicitor of the Supreme Court.

Introduction.

In choosing for the subject of this lecture the title “Some Aspects of the Law Regarding Parent and Child” Mrs. Crofts thought it might be perhaps a help to her listeners in their work if she tried to give them a bird’s eye view of this somewhat complicated subject. Mrs. Crofts said that it was the English habit to legislate “piece-meal,” as it were, and though probably this method resulted in practice in more efficient working than the more theoretically complete legislation of certain foreign countries, yet there was no doubt that it made it more difficult to summarise in non-technical language the actual state of the law at any given time.

The field was so large that she could only touch briefly on the principal aspects of the subject. She hoped that questions after the lecture might open out points upon which she had not had the time to touch.

She proposed to divide her lecture roughly into two parts though

occasionally she feared the division would appear arbitrary and even illogical.

*I. Duties and Powers of Parents with regard to Legitimate Children.**II. Illegitimate Children.*

Mrs. Crofts said she hoped also if she had time to be able to summarise the present state of the Law under the Adoption of Children Act, 1926.

I.

A. DUTIES AND POWERS OF PARENTS WITH REGARD TO LEGITIMATE CHILDREN.

1. *Guardianship and Custody.*

At Common Law the father was entitled to the custody of his infant children, other than a married daughter, even against the mother. On the death of the father the mother became usually similarly entitled to the custody of the child; but during his lifetime she had generally no rights against him with respect to its custody and control.

Various statutes passed from time to time e.g., Custody of Children Act 1891, made inroads on the father’s Common Law rights, so that the Court could deprive the parent of the child’s custody on certain grounds, e.g., gross neglect, ill treatment, subjecting the child (if a girl under 16 years) to certain moral dangers. The criminal law also in a measure, protects right of parents and guardians to the possession of their child, e.g., it is an offence to remove a child under 14 with intent to deprive its lawful guardian of its possession. Furthermore the assent of both parents is now usually requisite to the marriage of their child if under 21 and neither a widower or widow.

Mrs. Crofts then referred to the Guardianship of Infants Act, 1886, which though in practice very limited in scope, did to some extent enlarge the rights of the mother against the father.

She then proceeded to deal in considerable detail with the Guardianship of Infants Act, 1925, a very important Act which fundamentally affects the rights of parents substantially granting equality of rights to mothers as against fathers. The paramount consideration guiding the Court was in future to be the welfare of the child. Either parent can apply to the Court. Courts of Summary Jurisdiction (with certain exceptions referred to by Mrs. Crofts) as well as County Courts and the High Court have power to deal with questions of dispute arising regarding the custody, upbringing, etc., of children. The Act allows the mother as well as the father to appoint a testamentary guardian to act with the surviving parent and all questions in dispute between such persons can similarly be dealt with by the Court.

2. *Maintenance.*

Statute compels every parent whose circumstances enable him to do so to provide for his children, if through infancy disease or accident they are unable to work for themselves, though nothing except “necessaries”

need be provided. The father, mother, and also the grandparents of any child, unable to support himself, are liable, if possessed of sufficient means to maintain such child. A man is liable, in addition, to support his step children and his wife's illegitimate children, but only if born before the marriage. A married woman with separate property has the same liability as her husband for the maintenance of parents, children and grandchildren (but not step-children). This does not, however, relieve her husband of his liability.

Mrs. Crofts summarized the present law of inheritance on intestacy which has been in force since 1st Jan., 1926. The issue of a person dying intestate on or after this date are entitled to divide between them such of the estate as remains, after payment of debts and expenses, and after the spouse, if surviving has taken the personal chattels, a sum of £1000 and a life-interest in one-half of the remainder of the estate. On the death of the surviving spouse such issue divide between them this half of the remainder of the estate. If no spouse of the intestate survives him or her, the issue, subject to the payment of debts and expenses, divide the whole estate.

3. Education.

Statute has placed on parents the duty of educating their children, between the ages of 5 and 14, either at their own expense or by sending them to public elementary schools provided by the Local Authorities and subsidised by State grants. Local Authorities in addition have power to provide "special schools" e.g., for physically or mentally defective children.

A father may lawfully correct his infant child in a reasonable manner and may delegate part of his parental authority to a schoolmaster.

B. ILLEGITIMATE CHILDREN.

1. Who are Illegitimate?

Before 1st Jan., 1927, when the Legitimacy Act, 1926, came into force, a child was regarded as illegitimate unless its parents were validly married to each other at the time of its conception or at the time of its birth.

2. Legitimation.

At Common Law an illegitimate child could only be made legitimate by a special Act of Parliament.

The Legitimacy Act, 1926, introduced into English Law a new principle, viz. The principle of legitimation by the subsequent marriage of the parents of an illegitimate person. The Legitimacy Act provides that where the parents of an illegitimate person marry or have married each other, either before or after the Act came into force, the marriage shall, if at the date of the marriage the father was domiciled in England or Wales, make the person legitimate from the commencement of the Act, or from the date of the marriage, whichever last happens, provided that nothing shall operate to legitimate a person either of whose parents was

married to a third person at the date of his birth. It will thus be seen that only certain illegitimate persons can be legitimated.

Interests in property which a legitimated person (or persons claiming through him) can take are strictly limited. Generally speaking, legitimation results in the capacity to inherit most kinds of property, where the intestate dies or the disposition takes effect after the date of legitimation but, e.g., the Act does not effect the succession to a title or property devolving with such title, which still cannot pass to a legitimated person.

Provision is made for the re-registration of births of legitimated persons, subject to certain provisions restricting this right.

3. Rights and Liabilities of Parents.

Except as mentioned hereafter, the father of an illegitimate child is not recognised in most respects by English Law. For most purposes the mother alone is recognised as having the rights and obligations of a parent. The mother unless she subsequently marries, is responsible for the maintenance of the child, until it reaches the age of 16. And should the mother have sufficient means to maintain the child and fail to do so, she is criminally liable. A mother can, in most cases, compel the father of the child to assist her to maintain it by means of affiliation proceedings against him, but this will not relieve her from liability. The mother of an illegitimate child is, in addition, entitled to the custody of the child, even against the father, and can decide all questions as to the education and religion of the child. The mother (except under the Adoption of Children Act) cannot divest herself of these rights and liabilities. Even if some one undertakes to maintain the child, the mother remains liable. All her rights and liabilities cease, however, on her death, when the father becomes, in the absence of special circumstances, entitled to the custody of the child, even though the mother has appointed a guardian to act after her death.

If the father assumes the custody of the child on the death of the mother, he becomes liable for its maintenance; he is, however, under no compulsion to assume such custody. Unless, therefore, the father has assumed such custody on the mother's death, or an affiliation order has been made against him in respect of the child, he is not during the mother's lifetime or after her death liable for its support. If, however, he contracts with the mother to contribute towards the maintenance of the child, such contract is legally binding on him and he is not discharged by bankruptcy from liability under it. Moreover, the existence of such a contract will not prevent the mother from instituting affiliation proceedings against him.

If the mother of an illegitimate child marries, her husband becomes liable for the maintenance of any illegitimate child of hers born before the marriage, whether he is the father of the child or not. A husband is not liable, however, for the maintenance of illegitimate children of the wife, born after the marriage, even if he continues to live with her. No person, other than the parents of the child or the mother's husband, has any

liability for the support of an illegitimate child, or any right to its custody, unless custody has been granted by the Court. Should, however, the mother be dead, insane, or in prison, any two justices of the peace may, after an affiliation order has been made against the father, grant the custody of the child to a person appointed by them, and may direct that all payments under the order be made to such person, who has then all the rights of enforcing payments usually possessed by the mother.

The mother of an illegitimate child can, if an insured person, claim maternity benefit in respect of its birth, and can also claim under the Workmen's Compensation Acts if she is dependent on such a child, and similarly the child can also claim if dependent on the mother.

Consents on Marriage: In the case of the marriage of an infant who is illegitimate (unless such infant is a widow or widower, when no consent is required), if the mother is living her consent is usually necessary, but if she is dead or has been deprived by the Court of the custody of the infant, the consent of the guardian appointed by the mother or the Court is required (Guardianship of Infants Act, 1925).

RIGHTS OF ILLEGITIMATE CHILDREN.

Though English Law provides for the maintenance during childhood of an illegitimate person, he suffers many disabilities, for he is, for certain purposes, *filius nullius*. Thus, on registration of his birth (for which the mother is solely responsible), no one is registered as the father, except at the joint request of the mother and of a man who acknowledges that he is the father. Furthermore, in a will a gift to "children" benefits only legitimate children, unless it is proved that the testator meant to include therein illegitimate children. Formerly, neither an illegitimate child nor his issue could inherit on an intestacy because he could be neither next-of-kin or heir to any person, and, if he died unmarried and intestate no person could claim to be his heir or next-of-kin, and accordingly the Crown was generally entitled to all his real and personal property.

A partial change in the law in this respect was, however, made by the Legitimacy Act, 1926, which came into force on 1st January, 1927. Under this Act an illegitimate child can succeed to its mother's (but not its father's) property on her intestacy, provided that she left no legitimate descendants. Similarly, a mother (but not a father) may inherit on the intestacy of her illegitimate child. This provision does not apply to entailed property.

The laws with regard to incest and marriage within the prohibited degrees apply, however, to an illegitimate as well as to a legitimate person, for in these matters natural relationship is considered rather than relationship according to law.

Adoption.

Mrs. Crofts by special request dealt with this subject in considerable detail.

At Common Law adoption was not recognised, for English Law regarded the rights, duties and liabilities of parents as inalienable by any act of the parents themselves.

By the Adoption of Children Act, 1926, a new principle was introduced into English Law. The Act provides that on the application of a person desirous of adopting an infant (i.e. a person under 21) who has never been married the Court may make an "Adoption Order" authorising the applicant to adopt that infant. Except in the case of a husband and wife only one person can be authorised to adopt a child.

An adoption order cannot be made where the applicant is (a) under 25 years, or (b) is less than 21 years older than the infant. The latter restriction (b) may be waived by the Court if the parties are within the prohibited degrees of consanguinity. Except in special circumstances an adoption order cannot be made where the sole applicant is a male and the infant is a female. An adoption order can only be made with the consent of every person who is a parent, guardian, or has the actual custody of the infant, or who is liable to its support though in certain circumstances the Court may dispense with the consent of such persons.

An applicant cannot obtain an adoption order unless resident and domiciled in England or Wales, or in respect of an infant who is not a British subject and so resident. The adoption order must be for the infant's welfare and no applicant, parent, or guardian, can receive any payment or reward except with the Court's sanction. In making an adoption order the Court may impose such terms and conditions as it thinks fit.

The Act carefully sets out in detail the effect of adoption and strictly limits its legal scope. Practically all that the adopter acquires are the rights and liabilities regarding the child's future custody, maintenance and education which the natural parent would have had. The child acquires a liability to maintain its adopted parents instead of its natural ones.

Adoption, it should be noted, has no effect whatever on intestate succession. The only method therefore to ensure that an adopted child shall be provided for on the adopter's death is for the latter to make a Will or Settlement or gift *inter vivos* (i.e. while both parties are living) in favour of the child. Care should be taken in making Wills or gifts in such cases to make it clear that it is an adopted child who is intended to benefit.

Jurisdiction under the Act is given not only to the High Court and County Courts but also to Courts of Summary Jurisdiction, thus enabling persons of small means to apply for an adoption order.

In order to safeguard the child the Court must appoint some person or body as the child's "guardian *ad litem*," to investigate all the circumstances and to put before the Court all matters affecting the child's welfare. Applications under the Act are heard *in camera* (i.e., the public is excluded) and applications to a Court of Summary Jurisdiction are heard in a Juvenile Court.

The Act provides for the creation of an "Adopted Children Register"

to be kept at the General Register Office in which certain prescribed particulars of the adoption are to be recorded. The Court, if satisfied as to the date of the child's birth and its identity with a child referred to in the Register of Births, will in the Adoption Order direct the Registrar-General to mark the entry in the Register of Births with the word "adopted" and to include in the particulars entered in the Adopted Children Register the date of birth. The Adopted Children Register will as regards adopted children whose date of birth has been proved to the Court, replace the Register of Births as far as the general public is concerned. In this way the fact of a child's illegitimacy will be able to be concealed.

CONCLUDING LECTURE.

PROFESSOR WINIFRED CULLIS.

Lady Cynthia Colville, Vice-President of the Women Public Health Officers' Association, in welcoming Professor Cullis, said it gave her much pleasure to be present at the concluding lecture of the Winter School, and she was glad to know the School had been so successful. Lady Cynthia considered that Health Visitors were most important people, playing an important part in the life of the country.

Professor Cullis, beginning her summing-up lecture, said there were two angles from which the School might be considered. 1. *The Winter School.* 2. *A Winter School.* She would deal first with *the school.* After reading the summaries of the lectures, she wished to congratulate very warmly those responsible for drawing up the programme. It was so planned that though a great diversity of subjects had been dealt with there was a clear connecting idea running throughout. Time would only allow her to stress some of the more important points made by the various lecturers. But taking them as a whole there had emerged one main idea "Prevention is better than cure," with its corollary that the lecturers had felt—as she did—that it was well worth while to come and talk to a group of workers with whom lay so much opportunity for health education, and also for prevention.

Summary of Lectures. 1. Like Lady Erleigh, Professor Cullis owned she was tired of the "perfect" nurseries, and recognised the comfort and homeliness of a not too tidy room.

2. *Sex Problems of Early Childhood.* Professor Burt had made a wise plea when he urged authorities to recognise the importance of not putting too much strain on the adolescent. Physical, intellectual, temperamental, and emotional changes, were occurring at this period which, during their adjustment, must cause a certain amount of strain on the organism. The question of sufficient rest at this time was of the utmost importance.

3. *Working Life of Boys and Girls.* The idea of school children having to do outside work certainly was to be deplored. The abrupt change in the life and habits of a child on leaving school and then perhaps

working 60 hours per week, undoubtedly could put a severe strain on their health. Medical examinations of child, not only on entering employment, but at regular periods afterwards, would be a safeguard. Such a step could be secured only by the education of public opinion. Prof. Cullis referred to the great outcry against the medical inspection of school children when it was first introduced.

4. *The Expectant Mother.* Mr. Rivett had said of pregnancy that "although it was a normal physiological process, it was an uncomfortable one for the mother." The amount of milk necessary for the expectant mother was to-day a matter of discussion. Professor Cullis thought that as it was known that the developing child needed a considerable amount of calcium and that milk (with its derivative cheese) was one of the best sources of calcium and it was necessary to be cautious in cutting down the amount of milk. Calcium absent from the diet would be provided at the expense of the maternal tissues, hence the frequency of teeth troubles during pregnancy. She considered that the "key" to a healthy diet was moderation. Health Visitors can do much to give confidence to the mother, which Mr. Rivett considered so important.

5. *Venereal Diseases.* Health Visitors were of great importance in helping the Community to deal successfully with Venereal Disease—they could send suspected cases for examination and could encourage the patients to persevere with long courses sometimes necessary. One of the most encouraging aspects of treatment was the established fact that healthy children could be born of infected mothers properly treated during pregnancy.

6. *Anaemia in Infants and Young Children.* The importance of a sufficiency of iron in children's diet, had largely been established by the work of Dr. Mackay, and she and others had found that copper also was a necessity. As milk was deficient in iron it was necessary to see that a child fed largely upon milk must be given extra iron in some other way.

7. *Deficiency Diseases in Infancy.* This lecture dealt with an important and familiar subject. The necessity for an adequate supply of vitamins was again stressed, as also the importance of careful cooking to avoid their destruction.

8. *Breast Feeding* was important and definitely of value even if only carried out for the first few weeks of infant life. A properly balanced diet for the mother was a necessary aid to successful breast feeding.

9. *Sex Problems in Early Childhood.* Sex problems were recognised as being often very difficult from parents' point of view. Professor Cullis said that Health Visitors could be of greatest help to parents by persuading them to send difficult children for special investigation and treatment. Wrong punishing was indeed harmful. It was, of course, better, often possible, for the expert to discover and to remove the cause of the naughtiness.

10. *Nursery Schools* are now generally recognised as splendid in

every way, being of great importance, particularly in helping to establish better standards of cleanliness, to develop good habits, to secure proper feeding.

11. *Prevention of Damage from Infections.* The modern treatment of these diseases differed very much from the old. It was good for the members of the school to have had actual demonstrations of a modern fever hospital. After seeing for themselves they could encourage parents and patients with great confidence to take the advantages offered.

12. *Diet for Toddlers.* Another lecture dealing with the important question of proper feeding in which the importance of fruit and vegetables as essentials of an adequate diet was emphasised, as also the need for tactful dealing with the child who finds some foods distasteful.

13. *Prevention of Crippling in Young Children.* Prevention was the important note struck in this lecture, and Prof. Cullis again pointed out how much Health Visitors could do in the detection of deformities and the securing of early treatment.

14. *Danger Signs of Fatigue in School Children.* To avoid fatigue longer breaks between lessons were necessary. Children should have a natural inclination for activity, and if they had not there was need for investigation.

15. *Mental Hygiene in Children.* It is of the utmost importance to find out the cause of this condition, which was sometimes a wrong balance between mental and physical exercise. Children should be encouraged to "let off steam" during playtime to relieve stored up tensions.

16. *Relief of Poverty in Central Europe.* Professor Cullis stressed the importance of the point made by Miss Sayle of prevention rather than relief of poverty.

17. *School Hygiene.* Co-operation between teachers and Health Authorities was very necessary. Much depended upon the home conditions. The child needed to be well fed to get an adequate amount of rest. School equipment and arrangements were very important factors in the health and well being of the child.

18. *Prevention and Treatment of Tuberculosis.* As a preventive measure every person with cough for more than three weeks should be medically examined. Coughing with no protection over the mouth was responsible for the spreading of a good deal of infection both of the common cold and of more serious conditions.

19. *Poverty, Nutrition and Public Health.* From figures given in Dr. M'Conigle's lecture it was obvious that for those living on a weekly income near the subsistence level anything that lessened the amount of money available for food became very serious. This showed the importance of lower rents, which would leave more money for adequate diets.

20. *Some Aspects of Law Regarding Parent and Child.* Mrs. Crofts had dealt with Acts dealing with the guardianship of children,—the position of legitimate and illegitimate children, and the adoption of children, all of the utmost importance to Public Health Officers in their work.

Professor Cullis illustrated many of the points of the different lectures with examples from her own experience. She said she had only time briefly to touch upon the second aspect—*A Winter School.* She expressed her entire agreement with Mr. Greenwood, who in the opening lecture said that the revivifying and broadening of interest in work that came from attendance was perhaps of equal value to the increase in knowledge they acquired. On the other hand to hear of developments from those who were largely responsible for them was very stimulating.

Another important aspect of such a School was the help and encouragement received and new friendships made as a result of discussions and talks between the members, who in this way often found solutions of all sorts of difficulties. The work of Public Health Officers was exacting and to those wearied by attention to detail it was restful to be able to see and to realise that their work was part of a great national movement.

In conclusion Prof. Cullis joined with Lady Cynthia, the gracious and admired President of the Association, in congratulating the members on their keenness which had made them devote a part of their not too great holiday time to the School. She knew how much the members appreciated the school and the work of those who organised it. But, of course, there would be no Winter School without the Women Public Health Officers' Association, and the Association could not exist without members. She therefore urged all who were working in this service to become members and to strengthen its effectiveness and to show in this very practical way their realisation of the work done on their behalf by the Association.

PAMPHLET