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THE DUST BOWL INVASION OF CALIFORNIA

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When natives of the State return from visits abroad or to other parts of United States most of them wonder why anyone lives elsewhere than in California. This characteristic of love and loyalty is not unknown to outsiders; it has been the cause of considerable amusement and the butt of many a joke. It has not made Californians particularly popular with inhabitants of other localities. As a state, however, it has many attractions. A spot map of United States showing places of interest has California very well covered when some other ^{areas} states are almost blank. It has a volcano that still smokes; it has a petrified forest; it has natural parks like Sequoia, General Grant, Yosemite, Lassen. It has mountains and forests, lakes and rivers, and an ocean. It has fruit, and cotton, and oil; and it has gold. The Spanish from the South and the Russians of the North desired it. Every city, almost every gathering in it, has representatives from many states. The adopted resident is a greater booster than the native son. Like Italy of old, California pays for its beauty by invasions.

Never before, however, have circumstances been such that almost the entire population of an area should wander into new regions in search of food. Draught, storms, and depression created a situation that made it a necessity for thousands of men, women, and children of the Middle West and South to go in search of a better place to live; and in retrospect it is not surprising that a vast army chose California.

The need of food has been a frequent cause of migrations. In snow covered areas people and animals follow the green fields. In barren tracts the same has occurred. If the desired land has been occupied struggles ^{have} ensued and the spoils have gone to the victor. These wanderings and battles ^{one} ~~we~~ considered ^{as} belonging to primitive peoples and other eras. We may fail completely to recognize the same underlying principle when it occurs here and now and we are the participants in the drama.

The trek westward in ^{the} United States has gone on for a long time. The early migrators, however, could squat and make the land their own or ~~they~~ wrested it from the Indians ~~who~~ by the standards of the white man were never the rightful owners. Now the Pacific barrier has been reached and even the lands beyond are occupied. All the territory has owners, and the establishment of newcomers requires a job or capital. Law and order are on the side of the citizens of the state. It is not likely that the invaders will rise up in arms and take the land. A far subtler ~~occupancy~~ ^{invasion} will take place. Even the attempts to stop invaders or return them by pleas to the federal government will probably be unsuccessful..

Like the legend of ^{the} elephant and the blind men entirely contradictory pictures of the problems involved in the present migration from ~~dist~~ bowl into California are portrayed by various people. Can anyone get a ~~detached~~ ^{detached} picture of the situation at present? Who are the invaders? What are they like? What are their problems? How are they received? What will become of them?. How will they influence the country they are attempting to make their home? What will the inhabitants do to them? Will succoring them bring more until our land is destroyed by them? These are some of the questions involved.

The invasion has been insidious. As noted earlier the present citizenship is composed largely of adopted sons and daughters from other states and countries. Added to these at the onset of the depression were the more progressive ^{from} ~~of~~ the afflicted areas; these in turn were followed by increasing numbers until the inflow became almost a stampede. They came mostly in old model cars with the entire family and household belongings and sometimes in addition a tent. When they arrived they "squatted" in a convenient spot and looked for something to do. About the only available jobs for this type of laborer was field or crop work. The type of agriculture in this state requires large numbers of workers for short periods of time. The various products are ready for gleaning at different seasons; hence the laborers soon develop the habit of following the crops. - prunes, apricots, oranges, grapes, and cotton have to be picked. Prior to this invasion most pickers were ~~Mexicans~~ ^{Mexicans}. The estimated proportion then was 75 ^{Mexicans} to 24 whites. Now it is about 40 to 60. The new white laborers have been called by various names: migrants, squatters, transients, and

Oklahomans. By whatever name they are called many are not only without residency in the state but, because of their wanderings without citizenship in the county. Thus when a child was asked where he was born he replied "in the prunes".

Altho a car, a family, and a tent may stop by the roadside almost anywhere, when over 100,000 arrive with and without tents some type of housing and colonization will occur. Families and friends will try to keep together. Furthermore though a land owner may permit one family and tent under a tree on his property for a night or two, he is apt to object to a colony pitching tents ^{indefinitely} on his ranch. Attempts have been made therefore to limit certain areas to transient camps. Some of the wealthier ~~or~~ more progressive ranchers have built cabins and cottages on their property to house their laborers. This is not a particularly new venture. There may be very attractive and well cared for little white cottages with green shutters and picket fences; some with gardens, vines and flowers. Cleanliness and sanitation is maintained. There is adequate garbage disposal, a nurse may be employed and even a doctor contemplated. These houses are rented for a small fee per month to laborers on the ranch and at times even to those working on nearby ranches. This method of caring for its laborers is not without grief to the rancher. Honest attempts at comfort and hygiene are frequently met with dishonesty, ~~un~~cooperativeness and destructiveness. Cabins cleaned and repaired after evacuation are left by the next inhabitants, dirty, with windows broken, doors unhinged and screens torn. 5

The characteristic of destructiveness and lack of responsibility toward another mans property is widespread in our and probably all nations. It certainly is ~~no~~ not limited to the transients. The tendency to destroy by taking souvenirs and deface by scrawling names, initials, and comments is one phase of it. The necessity of posting regulations and even threats in auto camps and rest rooms and hotels depicts another.

Housing, however, is not the only problem facing the ~~R~~ancher. The brunt of criticism for the poverty of the farm laborers falls on him. This very frequently is not justified. The farmer belongs to neither ^{the} labor or ^{the} capital ^{partly} and yet by each he is considered a member of the opposite group. Whether or not he can maintain his identity in such a position is a real question. If any group is threatened to be

crushed in the labor-capital struggle it is the farmer. ~~Here~~ In California crops have been limited by frost, flood, and legislation. When prices are up there is nothing to sell. When the yield is good, prices drop to a level that harvesting is scarcely worthwhile and yet the cost of ^{living and of} production as well as taxes have constantly risen. 5

In spite of the influx of men and the large number of unemployed, dependable laborers are hard to find. Much of the work is necessarily sporadic. The farmer cannot compete with Federal Projects in such a way that it will make it worthwhile for the laborer to drop temporarily his WPA job or to go off relief. The return to either is tied up with so much red tape that the inertia of the average unemployed cannot ^{hurdle} ~~handle~~ it. 5

The difficulty and cost of marketing ^{crops} ~~it~~ with union labor in control of ports still further reduces profits and makes farming indeed a capricious industry.

At present the Mexican labor is more satisfactory than the white. They keep the cabins in better repair, they cooperate in maintaining hygiene and sanitation, and they respond better to suggestions for improving the home by gardening, growing flowers, and so on. The reasons for such a commentary on the two types of laborers furnish some interesting psychological speculation. The Mexican migrant may have been the more progressive citizen of his own country, he is the more seasoned, he has been in the field longer, he may have learned to appreciate some semblance of a permanent home, some beauty, and the futility of rebellion. Furthermore being of a different color and race and definitely the invader of another man's country he suffers few complexes of class distinction. The white migrant on the other hand is more apt to be the low end result in a land of many opportunities; he is unseasoned in the work; being a white citizen of the United States he is apt to feel this is his home as much as it is that of the owner of the land, there is rebellion of a kind in his soul, and he suffers being a hireling of his own race and a fellow laborer of a foreign one.

At the upper end of the ^{central} valley Uncle Sam provides the camp ^{what valley?} grounds and controls regulations. Here cement squares serve as floors for canvas tents, the latter being required of the migrants. The camp ^{is} electrically equipped

and has utility houses with toilets, baths, and washing machines. Electric irons are checked out to the campers on request. There is an entertainment building with a nursery school, a dance hall, and a screen for showing movies. A clinic building with a nurse in charge is maintained and conferences are held weekly by the doctor. Even a part of the camp is set aside for the tents of those who have infections and is called the isolation unit. A small fee is charged the campers. Various regulations have been formulated governing the type of occupants of the camp, care of property, behavior in the camp, drunkenness, visitors at dances etc. Even a small paper is published and campers are urged to contribute to it. It probably acts as a safety valve. Which type of overlord will prove the more acceptable only time will tell.

The types of camps described above are ^{still too} rare and house only a very small number of the migratory laborers. Others live in places not unlike the auto camps with cabins of wood or canvas. They may be in, or on the outskirts, of a small town or village or on a ranch. If electricity is near they may have this lighting; otherwise they use kerosene lamps. They usually have outside privies without plumbing. The cabins have one or two rooms which serve as kitchen living room and bedroom for a family of three to eight or nine. One of the poorer camps visited had a few cabins of wood, many tents and some with wood part way up and screen or canvas above. Some had wooden floors, others only dirt, yet many radios were blaring out their programs as we entered. A health talk was coming over one which seemed like a voice from another planet so inapplicable was it to the ~~the~~ surroundings and situations which the voice reached here. In another cabin was a modern Frigidaire which occupied a large section of the room. It served not only the members of that cabin but all the married children and their families. Although it looked incongruous, ~~there~~ it unquestionably was the most useful article in the camp. There were many washings on the lines. The bed linens, towels, and diapers were snowy white. Watching the women rub the clothes in soap suds, boil them in tubs in an outside fire, rinse them in bluing water, and starch the dresses and suits before hanging them up to dry increased ^{one's} ~~your~~ respect for a wandering people. With diapers flying like snowwhite banners on the wash line in camps like these the occupants must be credited with capabilities beyond their present opportunities.

It was summer and the children played in the dirt and sand. One marvelled at the patience that brought them in and washed them clean with a little basin of water and dressed them up in washed and starched clothes to go out and immediately soil themselves, yet mothers living in one or two room cabins with seven or eight children will bring the entire brood clean and starched and well mannered to visit the clinic or be inspected by the nurse. It is surprising that we should be so shocked at the transients mode of living when compared with our numerous vacationers who of choice live in trailers, tents or merely sleeping bags for weeks or months, the difference is largely psychological. The facilities in the two types of camps are about the same. Many a ~~wealthy~~ vacationer reads by a kerosene lamp, washes her face in a tin basin on a bench outside the cabin, brushes her teeth around the corner and dons her make-up before a small mirror hung on a tree with the food on one side and the table on the other. The water is often "too cold to wash ~~my~~ face". And she stands in line in the morning trying to look non-chalant before entering quarters often blocked and overflowing and littered with "Scotch tissue". In spite of all these discomforts, one hears remarks at the end of the season about returning to the "shackles" of civilization.

California is mild the year round compared with some of the places where these families have lived, yet even here winters with almost constant rains and many frosty nights adds considerably to the difficulties and hardships of the campers. Increased crowding is felt when the outdoors is no longer inviting; cleanliness is maintained with greater difficulty when the water is cold, the rooms ~~are~~ chilly, and clothes will not dry in the rain. Infections spread rapidly, whooping cough, measles, scarlet fever, and even smallpox, diphtheria and typhoid appear. Pneumonia is common and the death rate is high. In the winter months ^{it is harder to find work} ~~employment is scarcer~~, the little earnings during the summer have not been sufficient to ~~alot~~ any for rainy days. Food is scarce, hunger almost constant and the morale low. Death under these circumstances might often seem to be a blessing, yet the grief is very sincere and great. In fact the childless parents have gone with their scant pennies to the doctors of the village in hope of finding a remedy for their sterility that they too might enjoy a family. It is hard for most of us to conceive of any pleasure in anticipating the arrival of a child into an environment like this and a future not much more bright than that of the parents.

But it should be appreciated that what to us are migrants or transients or squatters are individuals who also pass this way but once and who feel the urge of getting some pleasure out of their stay here and partaking in some of the desires inherent in us all. The wish to live and reproduce and laugh a little before going on is too fundamental a part of human nature to be summarily dismissed.

The nurse if she is experienced, conscientious, and understanding comes the closest to these people and shares their difficulties, their joys, and sorrows better than any one else. To her therefore they are human. They have certain rights and obligations. They are individuals with different capacities, and they should be given a chance. In addition, to the interested onlooker, they are white, many of them tall and lanky with blond hair, often brown eyes. Some of the children are very pretty. They are happy, rather carefree, not bitter or vicious. One would surmise that they have their jealousies and hatreds. Occasional feuds, brawls, and fights would be expected. It is also likely that in this group as in all classes considerable variations occur; there will be the most intelligent and the most stupid, the dirtiest and the cleanest, the most selfish and the most generous, the kindest and the cruellest, the laziest and the most ambitious, and all the variations in between. To judge all of hundred thousands by one or two contacts would be very unjust.

To the health officer the transient is a different problem. He tho^{ugh} a physician is farther from the individual and closer to his health statistics. To him the infant mortality of his county has taken an appalling leap. His figures on the incidence of diphtheria, smallpox and typhoid in an age when these diseases have fallen to insignificant numbers, have steadily increased. To him transient camps, crowding, poor disposal of garbage and excreta are the causes. He would like to eliminate squatting and the camps. The ranchers, however, must have their fruit and cotton picked and for this they depend on transient labor. The doctor therefore compromises and tries to limit squatting and camping to designated areas that can be controlled and supervised. Vaccination and immunization is instituted to safeguard against the preventable diseases such as smallpox, diphtheria, and typhoid. Tuberculosis is a worrisome problem with the camps an ideal place for its spread. Care of tuberculous patient is ~~protracted~~ and expensive. Malaria and trachoma are not diseases of this

state and the health director wonders what the introduction of them will mean to the rest of the populace. How shall the acutely sick be cared for? They have no money to pay for medical services or hospitalization. Most of them have not been residents in the county long enough to receive aid from this source and money for county aid to its own indigents will not meet an added load. When the state is appealed to these same people are non-residents of the state and ineligible to sick aid. Thru the agricultural administration arrangements are now being made and already functioning in some areas whereby both physicians and county hospitals are partially reimbursed for medical services. This plan has not been in operation long enough to test its effectiveness or find its pitfalls. However the fact that the county, the state, and the federal agencies with their three divisions of social welfare, nursing, and medicine have representatives in each county to supervise and control the individual work of each agency has lead to duplication of effort incoordination in the work, red tape in receiving relief and general confusion to say nothing of inefficiency and a waste of money. *The workers in the field are willing to cooperate & ~~accept the situation~~ ^{discuss these} over the situation. The organizations higher up should synchronize the work.*

* One of the worst relief features has been the dole. In the midst of a plan for solving an individual transient's problem of residency, home building and employment, he goes to the relief bureau and receives a check. This tides him over for a week or a month. It is his line of least resistance. If he can do it once, he thinks he can probably do it again. In the meantime he is unable to establish citizenship in the county as a prerequisite to state residency, both of which require self support for a definite period of time. At the same time absence from the state of previous residency nullifies his citizenship there.

Added to all the above parties in the field is the private philanthropist who comes to investigate and see whether or not part of his millions can be used to his credit in the field. Hence the limousines with uniformed chauffeurs and silken ladies in patent leather slippers tip toeing thru the dust and gingerly viewing the little half starved waifs and the pregnant mothers. It is also a virgin field for sensation writers and propagandists.

No suddenly precipitated ^{the} problem is solved in a day. The health problem is not impossible of solution. The county personnel is defining its work, the state will take over the counties, particularly the inter-county ^{counties'} unsolved problems, and ^{leaving} the federal government ^{to handle} ~~should take over~~ only the unsolved state and interstate problems involved. Health will be reestablished by sanitary control of camps, immunization, and vaccination against preventable diseases, education in food substitutes and health measures. Medical care and hospitalization will eventually be provided by federal and state aid to the counties. Already the Child Hygiene Trailer is a familiar sight to natives. This is equipped as a dispensary with an examination table, sterilizer, necessary instruments, and literature. By means of a large canvas and ground sticks a lean-to is quickly put up. This serves as a waiting room and admitting unit for the nurse. Typical well baby and prenatal clinics are conducted usually lasting from 8:30 or 9:00 in the morning until 6:00 or 7:00 at night. Then stakes are pulled and the procedure is repeated the next day in another camp. No definite schedule can be maintained for a camp is here today and gone to-morrow. The patient seen one month in the "apricots" will be met another time in the "cotton". Yet mothers have grown accustomed to look for the clinic and bring their problems to its personnel. There is a limit to the effectiveness of this type of work but in a few months the sale of dried milk as a substitute for the too expensive fresh milk has increased tremendously. Babies have been vaccinated and immunized early, parents have been taught the procedures by which medical aid is available during illness and many other points in education have been put across.

The best worker for this task, whether nurse, social worker or doctor is one with experience, adaptability, and kindness. The city bred person with no understanding of agricultural problems or rural life wastes considerable time learning before he approaches his people correctly. The person whose sole training is book learning topped with a little field work in the city does not speak the language of the people. The mother who has borne without medical aid, and raised eight or nine children in a tent, or many tents scattered over several states, has not only tremendous experience in life but a philosophy be it ever so simple or crude, that the young college graduate can well afford to sit down and learn a bit about before he or she tries to change the entire

mode of existence of such a people. "^{perfumed}~~perfumed~~ gentleman" as the natives call them are apt to make an ineffectual effort at success. "^{reforming}~~reforming~~ ^{conditions}~~the people~~".

The local medical man who sees the sick patient has still another reaction to the problem of the transient. In the middle of the wet and cold season ^{age} is brought to him a baby ^{age and suffering} of two or three years ^{age and suffering} with pneumonia, undernourished, and rachitic. ^{The doctor} ~~He~~ hospitalized him and ~~watches~~ his temperature subsides, his blueness fades, his cough ceases. The baby laughs and coos and gets friendly with the doctor and the hospital personnel. To them he is only another baby, helpless, sick, and hungry needing a benefactor. But when his illness is over, when he needs careful convalescing for weeks with good food and comfortable quarters, he must be sent back to a tent or sometimes to the open with eight or nine others in cold and rain, ^{and share} ~~on~~ a limited food supply. Surviving such a transfer seems impossible yet he cannot be maintained indefinitely in the hospital, or in a convalescent or foster home. Even if he could the parents want their child back. Therefore the mortality remains high and the law of the "survival of the fittest" rules. One worker probably has developed the best philosophy in simply saying in the presence of insurmountable health problems, "God wants this child."

As the children pass thru the clinic, however, the majority look very well. The number of "defects" in the way of carious teeth, enlarged tonsils, malnourishment does exceed considerably the average of the health centers in the larger cities as well as those in rural communities; but glaring defects such as deformities, strabismus, tuberculous lungs or diseased hearts are not unduly prevalent. The reason for this is obvious) because the law of survival rules. ~~The~~ toll of the weaker along the way has already been taken. In the groups are found some young Tarzans; with brown bodies and sparkling white teeth as well as some artists delights among the girls with blond hair and beautiful brown eyes. On the other hand some among the younger ones particularly, are pale and frail with square heads, ^{big} hollow eyes, and spindly little bowed legs. When you ~~learn from~~ ^{reports} the nurse, however, that during the past winter they may have had measles, whooping cough, and pneumonia in the tent without medical attention and that appetites are now better you realize ^{that} six months of summer

sunshine with a little pay for food will give them a good chance of surviving and conquering these physical handicaps.

What is the future of the Migrant? The greatest question with the native is not what of the future, but when will they stop coming? As long as they get shelter and food and medical care better than ^{that} where they came from, will they not continue to bring their friends and relatives? How inexhaustible are the numbers? Only time will tell. Some type of equalization will take place. Again the migrant is not a uniform product but a group of individuals who will be sorted out and adjusted in different ways. Already many boys at the gas stations and clerks in the stores greet you with a southern drawl. This is at first a sort of shock to the native to whom it is almost a foreign language; but at the same time ^{their language} it is intriguing and infectious and those working with them ~~or in their midst~~ soon acquire phrases and expressions from them. They may produce a greater change in our speech than we do in theirs. The majority are not wanderers by nature. One widow had bought two acres of land and put up her own little cabin. She had children ranging from preschool ^{age adulthood} ~~to married ones with grand~~ ^(Some were married & had) children as old as her youngest. In conversation she stated that when she bought her lot there were most all whites thereabouts but now more and more Mexicans had come in, and the whites had left. "She didn't like her children to grow up only with Mexicans. The Mexicans were very nice folks and the children ^{if} sociated" with them always; but she still wanted them to know more of their own kind. She expressed apparently a common feeling, ^{and} this alone will sort out another group desirous of owning their own homes, tilling their own land, and "sociating" with their own kind.

What another way of living will do for the children is hard to predict. There were signs of finger ^{nail} polish on the girls, one child of 13 said she almost ruined her hair with a permanent. Another stated she wanted to be a nurse, and the way she said it made you feel she probably would be one.

If these people are not completely ruined by an easy dole ^{and} but allowed by survival of the mentally fittest to find a place for themselves, the jobs of crop picking will probably go back in its original percentage ~~to~~ Mexicans; and the influx

absorbed in normal jobs and particularly in small self supporting farms. The big rancher with his large plantations has probably reached his zenith.

Some may go back to the land from which they came. One man said "with irrigation our country will be as good as this" and he was homeward bound to boost irrigation. Equalization will probably take place without ^{making} California looking like a field visited by locusts, and of course, it is impossible to predict what our climate might do for our invaders.

Assessant 1969

The war changed all.

THE ENCEPHALITIS OF CHILDHOOD
A FOLLOW-UP STUDY OF 52 CASES DIAGNOSED AS ENCEPHALITIS

H.C. Threlkeld

unpublished

Koch's postulate has proven a fairly satisfactory standard for determining the etiological relationship of a given bacterium to a disease. It cannot, however, be applied to the virus diseases inasmuch as to date the viruses are invisible and cultivated with difficulty if at all.

When the encephalitic syndrome appears either as a part of a disease complex following a disease, or as a clinical entity it is impossible to prove positively the relationship of a given virus to this symptom complex. Thompson in his study of post-vaccinal encephalitis has analyzed the possibilities of the relationship of encephalitis to the vaccinal virus under the following divisions: (1) the nervous lesions are caused by the direct action of the virus on the central nervous system, (2) the nervous lesions are not caused by the same virus, but by some other virus or bacterium activated by a diseased condition, (3) the complication is the result of an anaphylaxis-like reaction to the virus or to a non specific factor. His discussion of these possibilities are as applicable to encephalitis accompanying other virus diseases as they are to those of vaccinia.

If we therefore start with the assumption that the encephalitic syndrome is due to the infective virus of the disease then etiologically the cases can be divided into: first, those associated with the acute contagious diseases; second, polioencephalitis; and third, lethargic encephalitis. Fortunately encephalitis is only a rare complication of the contagious diseases, but it does occasionally accompany measles, chicken pox, mumps, and vaccinia. These diseases although due to specific viruses have several things in common, and are placed, therefore, in one group. They run a self limited course, they leave a permanent immunity and the virus is destroyed with recovery from the disease. Again we can expect that an encephalitis accompanying any of these diseases may be fatal or irreparable damage occur with the acute attack but more often complete recovery takes

From the Department of Pediatrics and Communicable Diseases

Children's Hospital, San Francisco

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1950

Encephalitis

place without sequelae. From the nature of the etiological agent, whether or not the accompanying encephalitis is due to the virus itself, a toxin, or an allergic response, progressive degeneration would be illogical.

Polioencephalitis differs from the above in that the disease itself is primarily a central nervous system disease. Encephalitis symptoms occurring with poliomyelitis are fairly common. When the lower motor neuron is involved, diagnosis is not difficult, but when only the encephalon is involved, it may be indistinguishable clinically from lethargic encephalitis. Even pathologically it may be difficult to differentiate the two. Characteristically microscopic sections of poliomyelitis show perivascular infiltration and destruction of ganglion cells, but in the acutely fatal cases with predominantly encephalitic symptoms the picture may be confused with lethargic encephalitis. Animal inoculation if successful will differentiate the two. The course of polioencephalitis is self limited, it probably leaves permanent immunity and in all probability the virus disappears with recovery from the disease. There is no evidence that poliomyelitis affects mentality. Cases have been described which ran a rather subacute course with final recovery or death, but progressive mental deterioration due to the poliomyelitis virus has not been proven.

Lethargic encephalitis alone, differs in its clinical course from the above. Its onset may be acute but often is insidious and its course progressive over years frequently with marked degenerative changes. In a fair percentage of cases the acute onset is followed by a period of apparent improvement and then a recrudescence. Late sequelae such as defective mentality, varying types of apraxia, the Parkinsonian syndrome, etc., frequently occur. Howe reports complete recovery in 42% of the cases but with the acute clinical symptoms of poliomyelitis and encephalitis at times indistinguishable, and with no laboratory test to differentiate them, the prognosis in lethargic encephalitis as an entity obviously is difficult to estimate. Furthermore, the Japanese encephalitis and the recent St. Louis epidemic raises the question of whether or not the same virus is the etiological agent of all or whether these are

different strains.

A follow-up study of the cases diagnosed as encephalitis at Children's Hospital in the past 10 to 15 years has been made. Of 63 cases listed as encephalitis, we were unable to trace 11. Of the remaining 52, the original diagnosis of encephalitis proved incorrect in 5 instances. One had a brain tumor, 1 a brain abscess, 1 syphilis, 1 psychoneurosis, and 1 nuclear aplasia. Eight other cases were so obscure in regard to the etiology that classification was not attempted.

Two of these were in very young children who had constant convulsions over a period of hours and died. These probably were due to a systemic infection with toxic symptoms referable to the brain but autopsies were not done. Two cases following severe convulsions in early infancy (after 6 weeks), were mentally very much retarded and one died a few years later, the direct etiology of the condition was uncertain. One child had encephalitic symptoms at the age of 6 months and has recovered completely. She came from a family with several anomalies. The mother has a dextro-cardia, and a sister, one of twins, has cerebellar ataxia. It is possible that her nervous signs were on the basis of some slight congenital deformity, the symptoms being aggravated by an acute infection. Another child had ataxia starting 9 days after chicken pox. Her symptoms progressed; she showed marked intracranial pressure and was operated upon 13 days later. A large cyst was found in left fronto-parietal region. The progress of the case seems rather too rapid to attribute the cyst formation to chicken pox encephalitis. And finally the last case was a child with delirium, neck rigidity, 400 cells in the spinal fluid, severe upper respiratory infection, cervical adenitis, and a question of mumps before entry to hospital. He had had a skull fracture a few years previously. The illness occurred in April of 1930, early in the year of the poliomyelitis epidemic. The diagnosis in this case at various times was mumps meningitis, septic meningitis, and polio meningo encephalitis. He is a normal child now and the exact nature of his disease is still obscure. The rest of the cases were divided as follows:

Toxic encephalitis (accompanying a bacterial infection)	7 cases
Post-contagious (virus)	8 "
Polio encephalitis	6 "
Lethargic encephalitis	10 "
Possible polio encephalitis	9 "

Obviously encephalitis due to a bacterial infection must be toxic in origin for invasion or localization of the bacteria in the central nervous system would produce a meningitis or cerebral abscess. For want of a better term the above type of encephalitis has been termed a toxic encephalitis. Pathologically the brains show edema and sometimes small scattered petechiae hemorrhages. The pathological picture is diagnostic even though the clinical picture may be difficult to differentiate from a viral encephalitis. A toxic encephalitis may prove fatal or irreparable damage may occur in the acute phase but if recovery takes place, the toxin is removed and the tendency is to improve. Very frequently recovery is complete and without late sequelae.

The toxic cases are shown in table I. Four accompanied pneumonia, 1 pertussis, 1 dysentery, and 1 scarlet. Delirium, convulsions and other less marked symptoms fairly frequently accompany pneumonia and undoubtedly are due to toxic effects on the central nervous system, but this type of case was not included. The numbers in this group would have been much greater had they been so. Only those cases were included which showed definite and prolonged encephalitic signs.

F. A. the first of these cases was a child of 16 months, admitted in a convulsion and with an extensive pneumonia at the left base. His temperature ranged between 101.4 and 106.6 degrees. Two days after admission he had another convulsion and this was followed by almost continuous convulsions for 10 or 12 hours. Following this he was lethargic and very flaccid. After the resolution of his pneumonia he continued apathetic, he was unable to sit up or hold his bottle. His reactions were those of a 6 or 7 months baby. He improved slowly in the hospital and continued to improve at home. One year

later at 2½ years he is relearning to walk. He is talking some, more than before his illness. He feeds himself. His mentality is hard to judge but he has shown continuous improvement and may go on to complete recovery.

C. C. 3 years of age was admitted December 19, 1926. She had had a croupy cough for 10 days and then went to bed with fever, listlessness, and anorexia. This was followed on successive days by vomiting and drowsiness which merged into coma. On admittance she was stuporous and when disturbed would emit short, sharp cries. She had consolidation by examination and X-ray at the right apex. Her reflexes varied from time to time. She had a transitory strabismus. Her temperature was up to 103 at one period in the first two days, then returned to normal, blood count was 21,450 with 90% polys, spinal fluid showed 33 cells with 84% polys. Her respirations were not rapid. Her symptoms suggested a tuberculous meningitis but laboratory examinations did not confirm it. For a period of 10 days she remained in this lethargic state and then began to rouse and improve. She was sent home 1 month from the time admitted. She had then learned to say Mama, seemed happier, fed herself, etc. Seven years later at the age of 10 she is a sturdy girl, perfectly normal mentally and physically. The other pneumonias in varying degrees presented somewhat similar pictures.

Some years ago a Japanese family brought a boy of 4 or 5 into the office because of deafness and stated that this condition followed a severe dysentery in Japan during their recent visit. Deafness as a sequelae of dysentery seemed improbable at the time but the case presented here had sufficient involvement of the central nervous system to explain such a complication.

M. O. Japanese girl of 3 years was admitted to the hospital 10 hours after onset of diarrhea, her sister having died a few days previously with dysentery. The patient was severely ill. Her temperature was 105.0, she had an extreme toxemia and typical dysentery stools. She became comatosed, with twitching and convulsive movements, then remained for several days unconscious and in a state of catatonia. Spinal fluid showed 24 cells with 67% pms. She improved gradually and at the end of a year is reported as normal. This type of dysentery is seldom seen in this country and its

sequelae unfamiliar to most of us.

It seems almost unorthodox to list scarlet fever and pertussis in the toxic instead of in the post contagious group, but if the streptococcus and Bordeaux-Gengou Bacillus are the etiological agents they should be thus grouped. Pathological examination in the past by Askin and Zimmerman indicated that these two conditions were not related to the encephalitides of measles, vaccination and variola.

The case listed as scarlet fever encephalitis was not seen either at the time of the scarlet fever or the subsequent reported encephalitis. It was first seen several years later in a markedly retarded mental condition and the mother dated this retardation to the scarlet fever illness. No conclusion can be drawn from it as to the real etiology of the feeble minded state.

The pertussis case is the most interesting in this series. This boy of 13 months had coughed for 2 weeks; his 2 older sisters were in the convalescent stage of whooping cough. He was not whooping severely and had lost no meals. On Nov. 2, 1932 he was feverish and listless and in the early evening the parents were attracted to the room because of peculiar respiratory noises and he was found unconscious. He was seen shortly thereafter. His temperature was 104, his respirations were stertorous, he was unconscious, but examination otherwise was negative. His blood count was 18,800 with 52% lymphocytes. The first spinal fluid was normal, but the following day the fluid had 94 cells, mostly lymphocytes. His temperature remained high and he continued unconscious. After 2 days he had several convulsions and twitchings between the convulsions. He seemed somewhat relieved after punctures and after hypertonic intravenous solutions, but grew progressively worse, his respiration became irregular, he became cyanosed and died one week after admission. This case is particularly interesting at this time because several workers have attempted to disprove the B. G. bacillus as the etiological agent in pertussis, contending that an accompanying virus is the true cause. The autopsy on this child proved most enlightening. The pia arachnoid was markedly congested and the convolutions appeared swollen and slightly flattened out. In a number of sections the brain tissue was congested, otherwise normal. Microscopic sections of

right and left temporal lobes, thalamus, corpus striatum, cerebellum, pons, medulla and cervical cord showed blood vessels markedly engorged with diffuse edema of the nervous tissue and a few small perivascular hemorrhages in the right temporal lobe and thalamus. The pathological picture was that of a toxic and not of a virus encephalitis.

The spinal fluid cell count in the toxic encephalitides is uniformly quite low or normal. The prognosis for complete recovery is good, progressive improvement is the rule.

Table II is an analysis of the post contagious (virus) diseases. In this group is placed vaccinia, chicken pox, mumps, and measles.

Post vaccinal encephalitis has received a great deal of attention in recent years, and both the pathology and symptomology are being studied carefully by different observers. The incidence recorded by various authors in different countries ranges from 1 in 12 to 1 in 333,000. Thompson states that 65% occur between 10 and 13 days after vaccination. The earliest recorded was 2 days, and only occasional cases have occurred after the 16th day.

The mortality in English cases was 58% and the Dutch 35%. In most of the cases that survive recovery is apparently complete, although some have shown mental deterioration or residual paralysis.

The case in our series of post vaccinal encephalitis came in 3 weeks after vaccination with the complaint that for the past week she had had fever up to 104 with irritability, headache, pain in legs, and inability to walk. On examination she was listless, semi-conscious, and irritable. Her neck was stiff. Spinal fluid showed 276 cells with 50% lymphocytes. A day later her left pupil was larger than the right and she showed reflex changes. She recovered completely with no sequelae.

Encephalitis accompanying chickenpox is very rare, probably less than two dozen cases have been reported. The nervous system signs occur usually between the 9th and 13th days but sometimes as early as the 4th day or as late as the 15th day. Thompson states that recovery always occurs and is probably, invariably complete. No autopsies have been performed and the nature of the lesion is therefore unknown. The

two cases in this series were mild.

C. Q. had had severe chicken pox three weeks previous to entry and on the 4th day after onset began to complain of headache, she seemed weak, tired, dropped things and complained of the right hand falling asleep. The mother described a motion of the arm resembling that of a pill rolling movement.

The second case was more marked. Five days after chickenpox he complained of headache, dizziness and vomiting. He swayed to the left and was unable to walk in to the hospital. On examination his left arm was very ataxic. He had a slight facial weakness on the left. A slight strabismus and the left pupil was larger than the right. Both these cases had normal spinal fluids. They both recovered completely.

Nervous complications in mumps are more frequent than in either chicken pox or measles. The incidence varies considerably; 16 cases were observed in 653 cases, but over 1,000 cases were recorded without any. Many authors have regarded it as essentially a meningitis, but Haden has called attention to the fact that symptoms were out of proportion to the meningeal reaction. The onset may precede or follow the parotid swelling, but occurs most often at the height of the swelling. Few necropsies have been recorded and these few have reported a congestion of the brain and a serous meningitis.

The two cases of mumps encephalitis here reported were ushered in with convulsions. S. S. was a mild case with prompt recovery. C. L. a boy of 15 years was unconscious for 68 hours following the convulsion, during this time his respirations were irregular, the pupillary reflex was absent. The abdominal, cremasteric, bicep and tricep reflexes could not be elicited. His temperature was 104 to 105. The spinal fluid showed only 14 cells. He came out of his comatose condition and his temperature dropped almost as by crisis. He has had no sequelae. At 21 he has a responsible position.

The incidence of measles encephalitis is hard to determine. Boenheim in 1925 reviewed 6,940 cases of measles in the Berlin Hospital, from 1905 to 1925, and found the incidence of nervous complications to be 4 per 1,000 cases. This however, included unexplainable convulsions and furthermore, inasmuch as it dealt only with hospitalized cases, it would not give the true incidence in the total number. Other authors, notably

Greenfield emphasized the fluctuation in the incidence of nervous system complications. Thompson notes that since 1924 there has been an increased incidence of reports of these cases from both the Continent and America. In the reported cases the nervous symptoms occur about the 7th day of the disease, but they may appear before or at the height of eruption, or may be delayed two or three weeks. Pathological studies made, have been regarded by several authors (Turnbull, Greenfield, Ford) as similar if not identical with post vaccinal encephalitis. The post vaccinal forms have, however, a greater amount of perivascular infiltration and more complete demyelination. Ford found 113 cases of measles encephalitis reported and to this added 12 more. The mortality was 10% and 65% showed residual symptoms, weakness in 30%, ataxia in 12%, personality changes in 17%, and epilepsy in 5%. The cases tended to improve rather than become worse.

Three cases of encephalitis following measles have occurred on our service. One of these, J. H., was mild, characterized by headache, fever, mental confusion, and neck stiffness on 7th or 8th day of measles. His recovery was complete and without sequelae. He is a child that is slow mentally and somewhat backward but this antedated his illness. E. G. on the 9th day after measles had repeated convulsions and a fever which rose to 105. The convulsions were followed by stupor from which she could be aroused but was very irritable when disturbed. She had peculiar noisy respiration. The rash became pronounced and hemorrhagic. A spinal puncture was done and the fluid showed 52 cells. The condition remained critical for 48 hours and then improved. She recovered completely. The one fatal case in this group was a Japanese boy 7½ years. His encephalitis appeared 8 days after the onset of measles. He became unconscious, his rash became more pronounced and hemorrhagic and his neck stiff, reflexes were sluggish and respirations irregular. The spinal fluid showed 289 cells with 69% lymphocytes. He died 24 hours after admission to the hospital. Autopsy was not permitted. An interesting observation on measles encephalitis was the persistence and hemorrhagic nature of the rash. Follow-up study of these cases and a review of the literature bears out the assumption stated at the beginning that post virus encephalitides from etiological immunological and pathological aspect tend to be self limited and recover completely.

The remaining cases are placed in 3 groups, those diagnosed as polioencephalitis, those diagnosed as lethargic encephalitis, and a third group whose exact diagnoses is uncertain. This last group will be better understood if curves representing the frequency of both poliomyelitis and lethargic encephalitis in San Francisco from 1915 to 1932 are studied. An increased incidence of poliomyelitis occurred in 1916, another rather marked rise in 1921, and three peaks, each higher than the preceding in 1925, 1927, and 1930. Encephalitis was first made reportable in 1919 and the number of cases reached its peak in 1921, since then there has been a gradual drop. In 1921 about 80 cases each of poliomyelitis and encephalitis were reported. In reviewing the next three tables it will be apparent that a differential diagnosis between lethargic encephalitis and polio encephalitis with our present diagnostic procedures may be impossible. When one disease is prevalent the tendency will be to place obscure and atypical cases in that group which is epidemic, but when the 2 diseases occur simultaneously as they did in 1921 the difficulty of differential diagnosis becomes apparent.

Table III is a list of 6 cases diagnosed as polio encephalitis. Encephalitic symptoms in connection with the flaccid paralysis of poliomyelitis is fairly common. Follow up studies on these poliomyelitis cases with diffuse involvement have been made frequently and the outcome aside from paralysis is known to be good. Cases of encephalitis without flaccid paralysis due to the poliomyelitis virus occur and the prognosis in these like the combined form is good for normal mentality but diagnosis is difficult. The cases are presented therefore because the symptom complex was indistinguishable from lethargic encephalitis and the diagnosis of polio encephalitis was made almost entirely because they occurred coincidental with the epidemic of poliomyelitis, or early or late in the epidemic when the cases are known to be atypical. If these cases had occurred in 1921 they would in all probability been diagnosed encephalitis. The outcome has justified the diagnosis of poliomyelitis whether correct or not. The list includes two types of cases.

One type is characterized by sudden onset with fever, headache, neckstiffness, and continuous delirium, unconsciousness or deep stupor, and an increase in spinal fluid

cell count. Recovery takes place after 4 or 5 days, or sometimes longer, without paralysis. They are similar to cases described by Howe as encephalitis with marked meningeal signs and which he thought had a better prognosis than the other cases of encephalitis.

The other cases more nearly resemble the typical lethargic encephalitis picture. Three or four days after a trifling febrile illness the patient shows signs of muscular weakness, often headache and ataxia. The reflexes vary, in some cases they are absent, in others not. The spinal fluid may be normal. The weakness and paralysis is slowly progressive, often involving all four extremities, back muscles, neck muscles, intercostals in varying degree and swallowing. The paralysis extends over a period of several days and then gradually amends again. A diagnosis of polio encephalitis in a case of this nature is speculative and biased by a prevailing epidemic.

In table IV are summarized 10 cases diagnosed lethargic encephalitis during the acute illness, in all but one case. The symptoms vary considerably. In some cases the onset is abrupt with a definite acute illness, in others it is insidious in onset and in its course, with tendency to improve and relapse. These cases occurred throughout the year with probably some greater frequency in the winter months. Spinal fluid counts were usually low or normal but occasionally high. In one case it reached over 900. The outcome in this group reviewed after 2 to 14 years has been uniformly bad. Three are dead. One died with measles and convulsions two years after the diagnosis of encephalitis. The other two died five and seven years after onset, both with extensive paralysis. Three others are mentally retarded. Two are in institutions for the feeble minded. One is helpless physically because of a spastic paralysis, and is mentally degenerate. One is a well advanced Parkinsonian.

As illustrative cases, A. B. at the age of 11 years complained of seeing double but the mother attributed it to his gazing at the sunrise that morning. However, he remained restless, the double vision continued and he developed muscle twitchings and jerkings. When examined he was mentally confused. He had diplopia, ataxia, and scanning speech. The knee jerks were absent, Romberg positive, blood count 10,600 P 45% and the spinal fluid showed 65 cells mostly lymphocytes. He improved while in the hospital and

was dismissed but returned about a month later for insomnia. Following this he seemed fairly well. Two years later he had a T & A because he was a mouth breather, the operation did not improve the condition, and he went on to develop a mask-like face, drooling, and later typical Parkinsonian syndrome. He graduated from High School but is unable to work at present. His intelligence seems fair now at the age of 24, but he is a helpless invalid.

Another child E. T. at the age of 4 years developed in April after a bad winter with measles, influenza, and colds, a very slowly progressive weakness and stumbling gait. Her pupils were unequal, her K.K. absent, she was ataxic, and her legs eventually would not bear her weight, although lying down she could move them freely. After several weeks she slowly improved. At the end of two years she was markedly improved, she started school, was even able to jump rope, but in this interim, she had at one time had a sudden onset of strabismus which lasted for several weeks and then improved spontaneously. Two years after her improvement, in the fall of 1926, she had a recurrence of symptoms with progressive paralysis, involving finally both legs, both arms, respiration, face, and eyes. She again improved, the strabismus disappeared, her facial cleared and she had slight return of motion in left hand. Her pupils were unequal and reflexes not obtainable. Her mentality was unaffected. She remained in this pathetic state for 4 years with gradual increasing weakness until her death.

The last case R. R. was admitted to the contagious department at Children's Hospital in November 1930, the poliomyelitis epidemic year. Four days previous to entry he had had fever, sore throat and been restless and irritable and had complained of neck pain. His temperature had been 101 and he had vomited once. On examination his neck stiffness was negligible, though he complained of pain on extreme flexion. His temperature was 102.2. He was tremulous and there was a question of some muscle weakness of left grip and right deltoid, but this was not evident enough to be indisputable. Blood count was 9,880 P 80% and the spinal fluid showed only 7 cells. He was the one case seen during this epidemic that was diagnosed, untreated as probably an abortive poliomyelitis. He was seen in 1932 because of his mental state. His parents stated that whereas he used to lead his class before his illness, he was now in a special class. He

was docile and sluggish and his disposition very different from what it was previous to his illness. It is too soon to commit oneself on this case, but his abortive polio was probably an encephalitis.

The last table lists 9 cases which deserve further consideration. These cases were diagnosed as encephalitis, but from a perusal of the charts it was evident that the question of whether the virus of poliomyelitis or that of encephalitis was the causative agent, was discussed, but in the absence of specific therapy, the question of type was left unsettled. It will be noted that these cases occurred during the poliomyelitis epidemic months, summer and fall chiefly. The cell counts with one exception and that taken late, are relatively high, more like poliomyelitis than encephalitis. The three fatal case histories are very much like bulbar polio deaths.

M. B. aged 6 years, had been sick for 2 days with headache and pain in neck, then began to cough, gag and spit up frothy mucous. She regurgitated through the nose and had difficulty in breathing. Examination revealed a ptosis of one eyelid, slight facial weakness, a temperature of 101.6 and spinal fluid cell count of 250 cells. She died suddenly.

N. M. two years of age, had fever, vomiting, changed cry, regurgitation through nose, difficulty in swallowing, difficulty in breathing, temperature of 103, spinal fluid cell count of 50 and cyanosis. Death was probably due to respiratory failure.

L. R. three years of age, 10 days before admission had anorexia, fever, vomiting, pain in right arm and foot. Examination revealed a poorly nourished child, speech thick, head retracted, breathing abdominal in type, practically no intercostal movement, practically all reflexes gone, temperature 103 - 108, spinal fluid cell count 108, polys 66. Marked cyanosis and unconsciousness preceded death.

These cases read very much like our bulbar cases of 1927 - 1930. Another case was almost certainly poliomyelitis.

E. A. age 6 years, was admitted Sept. 7, 1921. Three days previous he had had fever, nausea, pain in neck, temperature 103, tremors. On examination he had an

anxious expression, neck rigidity, positive Kernig, right beceps absent, right K.K. more active than left, hyperaesthesia, semi consciousness and thick speech. This was followed by paresis of right leg and thigh. His spinal fluid cell count was 197. In 1932 at 17 years, he is an alert, intelligent, high school boy. On examination his right leg is shorter than the left and smaller and the K.K. is still absent. He compensates for it and has no limp.

The other five cases are less definite.

R. F. age 20 months, had a temperature 103 - 104, vomited and was irritable. On examination the K. Ks. were absent, he was drowsy, his neck was rigid and the spinal fluid showed 315 cells mostly pmns. His temperature remained high for 4 or 5 days and returned to normal without paralysis. He is normal now.

M. C. aged 13 months, for 48 hours he had been dopey, feverish, and screamed as if in pain when touched. He had no neck stiffness, the fontanelle was not tense, temperature 100.6. He was drowsy but could be roused. The head flopped when raised, the reflexes were hyperactive, the spinal fluid had 114 cells with 85% lymphocytes. He had a low grade fever for several days and then improved. When seen 4 years later he was normal.

M. C. age 3 years, had had a headache for 1 month, but her acute illness dated back 4 days, during which time she had been listless, with a temperature of 101, she had vomited, was dopey, and the head was drawn back. She could be roused but was very drowsy. She made a great effort to swallow, she had a ptosis of the left lid, her neck was stiff. The reflexes were all obtained. The spinal fluid showed 55 cells with 88% lymphocytes. Her temperature was normal after a day in the hospital. Now at 16 years she has finished high school and is ready for a position. She was not seen but her mother reports her normal.

E. L. aged 3 years, 14 days before admission had had nausea, vomiting and fever and was in bed four days. He was then up for two days. This was followed by drowsiness and pain in legs, severe headache, and diplopia. On examination the neck was rigid. There was some weakness of the left leg and absent reflexes. The temper-

ature was normal. The spinal fluid showed 8 cells. Now at 14 years is a very sturdy child, normal in every respect, physically and mentally. There is no difference in two legs and the reflexes are normal.

I. K. aged 8 years, 5 days before admission had temperature 100.5, headache, vomiting and stiff neck, tremors, some slight right facial weakness and ataxia. Examination revealed a marked horizontal nystagmus, a right facal weakness, weakness of left upper extremity, ataxic gait and poor convergence of right eye. The spinal fluid had 80 cells with 40% polys. One week after she left the hospital her gait was perfectly normal. She now has slight nystagmus of the right eye. She is unable to converge the right eye. The tongue protrudes to the right, some atrophy of it. There is no facial weakness and the reflexes are normal. Her general condition is good, her mentality normal.

The diagnosis in the first 10 cases can hardly be questioned, but of the last 9 some were undoubtedly poliomyelitis. Whether or not all of them were is a question that will remain unanswered until we have a more accurate method of differentiating the virus encephalitides. With the prognosis as variable as it is in these cases, some method by which an accurate diagnosis could be made a better knowledge of prognosis obtained would be a most satisfactory contribution to our medical science.

SUMMARY

Of six cases diagnosed as toxic encephalitis one died during the acute attack, one is a mental defective, one is still retarded after a year but may go on to complete recovery, and three cases are normal.

Of the post contagious virus infections, one died during the acute attack, the other seven recovered without sequelae.

Of six cases diagnosed as polioencephalitis, all have recovered without sequelae.

Of ten cases diagnosed as lethargic encephalitis, three have died two to seven years after the acute attack, three are in institutions for the mental defectives, three are mentally retarded and one has parkinsonian paralysis.

Of nine cases diagnosed as encephalitis, three died in the acute attack with symptoms that may have been poliomyelitis, one has residual paralysis like that of poliomyelitis and five have recovered without sequelae. The question is therefore raised whether or not all of these last nine cases were polioencephalitis or whether some were lethargic encephalitis without sequelae.

Obviously our knowledge of diagnosis and prognosis in the encephalitis of childhood is incomplete.

SERPASIL IN BRAIN DAMAGED CHILDREN

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not published

The pediatric literature has lagged in reports of the use of Serpasil and related drugs in neuropsychiatric disorders of childhood. In the recent symposium on Reserpine (1) only two articles are found relating to its use in children. Talbot gave Reserpine to a series of irritable infants and reported good results. Zimmerman and Burgermeister record observations on two groups of children, one on young epileptics in a private school and the other on a smaller group of retarded children. These authors state that results were highly individualized and no general conclusions could be drawn in this preliminary report.

Serpasil in
Brain damaged
Children

The past year Serpasil supplied by Ciba has been given to 18 patients attending the clinic for brain-damaged children at Children's Hospital, San Francisco. This clinic, supported by funds from the local United Cerebral Palsy Association has been described elsewhere (2), (3). Briefly it consists of a pediatric clinic for admissions and follow-up studies, consultative clinics and a therapy unit which includes a nursery school for young cerebral palsied children.

The children selected for a trial on Serpasil were not picked at random, but on the basis that it seemed likely or at least logically possible that the drug would have a beneficial effect.

Three general types were selected. One group consisted of hyperactive, distractible, sensitive youngsters that the medical and ancillary staffs felt had greater learning capacity than was being utilized. It was thought that if these children could be slowed down and

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if their attention span could be lengthened, it would be easier to evaluate their abilities. The second group consisted of children who were not relating normally to their environment. They showed semiautistic tendencies or schizophreniclike symptoms. In this brain-damaged group, these findings, at least in part, must be due to perceptual disturbances that interfere with the establishment of normal communication which might differ from withdrawal due to psychic trauma. The third division consisted of a miscellaneous group of children with odd seizures that were not well controlled by the usual anticonvulsant drugs.

In evaluating the effect of the drug on young children, several precautions are necessary. The brain-damaged, like the normal child, is growing and altering with age. He goes through the same developmental stages as the normal and often shows rather abrupt spurts in development. Great care must be taken not to attribute such a normal change to the drug. Furthermore, the brain-damaged child even as the normal, is extremely sensitive to alterations in the mother. When she is optimistic and hopeful this mood is reflected in the child by better performance. The introduction of any new therapy is apt to renew hope in the mother with not only improvement as a result in the child but often exaggerated interpretations from the mother. Finally there are few reliable criteria for judging improvement objectively against the above variables.

In Table I is given the basic data on the 18 children. There were 11 females and 7 males. The ages ranged from 3 to 7 years with the majority between 3 and 5 years. The drug was used only orally and was given in doses of 0.1 mgs. t.i.d. to 0.25 mgs. t.i.d. As reported elsewhere (3) these children in general are small for their age and this dosages seemed adequate. In view of the very large doses being used in adult medicine, some of these children may be tried on larger doses.

Five children showed improvement, 3 others probably were benefited, 7 showed no change and 3 were adversely affected. No toxic symptoms except slight temporary nasal congestion were seen.

The child with phenylpyruvic oligophrenia was given the drug because of disturbing seizures when falling asleep. She and Case 2 reacted as did the experimental monkeys with complete inertia. They were so inactive that the mothers were alarmed and did not wish to continue the drug. Case 3, a rigid athetoid with frequent vomiting, was given the drug with the hope of allaying the vomiting, but also with some curiosity as to its possible effect on her rigidity and her athetoid movement. She was tried repeatedly on it but each time showed increased vomiting and gastric distress. We were convinced that her symptoms were aggravated by the drug.

In the group showing no improvement were three children with seizures. Two of these were ataxic and one had a spastic hemiplegia. All of these children were also on anticonvulsant drugs. Neither the seizures nor the motor disability was affected. Three others who showed no improvement were hyperactive, nonrelating and retarded due to birth injury and anoxia. When Serpasil in doses of .25 mgs. three times daily had no appreciable effect, they were tried on Thorazine but without benefit. The other child in this nonbenefited group is a girl with normal parents and siblings and an uneventful prenatal and neonatal history. She is retarded and nonrelating and no benefit was seen from the use of Serpasil.

There were three children who probably showed some improvement - the mothers were quite insistent that they were better but the doctors and ancillary workers were not as convinced. C.W. is an idiopathic, non-relating, retarded child. She has shown improvement during the year, but in addition to a year of growth and development there has been a major change in the family. The father with a known cardiac condition

died suddenly and the family had to make several adjustments. The drug is continued for further observation. Two other children, S.T. and P.B., appear to be better ~~off~~ on than off the drug. S.T. had a skull fracture and later removal of a brain cyst in the frontal area. She has seizures, severe head banging, tantrums, and is nonrelating. The other P.B., had a subdural hematoma and was neglected in the home for two years. Her foster mother is convinced that she has improved on the drug, but the staff are still skeptical. There has been no change in her I.Q. rating as there was in her twin sister.

There were five children in the group who showed rather prompt and specific improvement on the drug. Three of these were hyperactive, sensitive and distractible youngsters. The drug had an unmistakable tranquilizing effect. In one child the fact that the drug had been started was not known by the grandmother or the private nursery school teacher. Both reported marked improvement, each attributing it to altered management. In another the mother and the child's pediatrician both noted the change after starting the drug. In a third child the school rather promptly reported a tranquilizing effect with greater ease in management. Case C.J. is a child with multiple handicaps; she is hyperactive, irritable, has seizures and suffers from severe asthma. With a program directed at all her difficulties she has shown marked improvement and is easier to manage. Thorazine has a greater effect on her than Serpasil. There has been no change in her mentality.

The greatest improvement has been demonstrated in Pat. B. This girl is a twin to P.B. described above and had suffered the same neglect for two years. Like her sister she had an I.Q. of 27-30. She had not walked and had no speech. In the hands of a good foster mother and attendance at our nursery school she showed improvement but no change in

her I.Q. over a two year period. She was placed on Serpasil in August of 1954 at 4 years of age. Her latest I.Q. was 60. She is 5 years, has the physical development of a 3-year-old and her present I.Q. is approximately normal for 3 rather than 5 years.

The use of Serpasil on a small series of young children living at home is reported. The fact that two children on a single dose of 0.1 mg. orally became very inactive, suggests that the drug should be started cautiously and parents warned of this effect which, although alarming, is probably not dangerous. This report, as well as Zimmerman's, might indicate that this drug is not going to be very valuable in seizures.

The nonrelating and autistic brain-damaged child in our experience has not been helped. The most promising results were in the hyperactive, sensitive and distractible children. It will be interesting to see whether or not habilitation of these children will be easier and permanently enhanced by the addition of the drug. To date only one has had a rather marked elevation of the I.Q.

SUMMARY

Eighteen children ranging from 3 to 7 years have been given Serpasil in dosages of 0.1 to 0.25 mgs. three times daily. In 5 an improvement was noted. In 3 others probably some beneficial effect was obtained. In 7 no change was seen with dosage used. In 3 adverse effects were noted.

In a rapidly growing and changing age period such as from 3 to 7 years it is extremely difficult to interpret results and several criteria should be used including careful I.Q.'s over a period of several years.

TABLE I

<u>Case</u>	<u>Age</u>	<u>Sex</u>	<u>Weight</u>	<u>Diagnosis</u>	<u>Comment</u>
D.U.	3	F	30 lbs.	Phenylpyruvic oligophrenia. Seizures. Retarded.	Adverse.
S.M.	6	F	32 lbs.	Mental retardation, nonspecific.	Adverse.
S.H.	5	F	22 lbs.	Rigid athetoid. Kernicterus.	Adverse.
A.B.	4	M	31 lbs.	Hemiplegia. Retarded. Seizures. Hyperactive.	No improvement.
D.T.	5	M	32 lbs.	Ataxic. Seizures. Retarded.	No improvement.
K.G.	5	F	29 lbs.	Ataxic. Seizures. Retarded.	No improvement.
L.D.	3	F	39½ lbs.	Retarded. Nonrelating.	No improvement.
D.E.	4	M	41 lbs.	Nonrelating. Hyperactive.	No improvement.
S.S.	5	F	43 lbs.	Nonrelating. Hyperactive. Retarded.	No improvement.
J.H.	7	M	53½ lbs.	Multiple handicaps. Nonrelat- ing. Retarded.	No improvement.
S.T.	4	F	39½ lbs.	Skull fracture. Craniotomy. Seizures. Nonrelating. Re- tarded.	Possibly improved.
C.W.	5	F	29 lbs.	Nonrelating. Retarded.	Possibly improved.
P.B.	5	F	33 lbs.	Subdural hematoma. Retarded. Suffered neglect.	Possibly improved.
Pat.B.	5	F	31 lbs.	Retarded. Congenital anoma- lies. Suffered neglect.	Improved.
J.C.	7	M	53 lbs.	Arrested hydrocephalus. Hyper- active. Retarded.	Improved.
C.J.	4	F	33 lbs.	Congenital anomalies. Seizures. Retarded. Hyperactive.	Improved.
M.E.	5	M	61 lbs.	Congenital anomalies. Hyper- active. Retarded.	Improved.
D.M.	4	M	31 lbs.	Congenital anomalies. Retarded. Hyperactive, distractible.	Improved.

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1956

THE PROPHYLACTIC USE OF BICILLIN IN BRAIN-DAMAGED CHILDREN

H. E. Thelander, M.D.*

In order to administer physical therapy and occupational therapy to young children with cerebral palsy, a nursery school program was started three years ago (1). As reported previously (2), brain-damaged children tend to be markedly undersized, undernourished, fragile, and prone to infection.

The use of antibiotics prophylactically against infection has been practiced mostly in rheumatic fever. There it has been fairly conclusively shown that ~~the use of~~ these drugs tends to reduce recurrent attacks or recrudescence of the disease. In rheumatic fever it is known that infection with the hemolytic streptococcus may precipitate a rheumatic fever episode. Furthermore the streptococcus is sensitive to penicillin so that it is logical to use this drug prophylactically in the disease. In the brain-damaged child there is no such specific criterion nor a definite disease that we are attempting to prevent. On the other hand, Rantz (2) has noted that in the very young child there are many infections of the so-called "cold" variety that are due to bacteria, either the streptococcus or pneumococcus organisms. In other words, in this young age group the clinical manifestations of bacterial disease are less well defined than in older children or adults. If infection due to these organisms were reduced or eliminated the children should have a better health record during the winter season than if bacterial disease is combined or superimposed on a series of viral infections. It is obvious that a prophylactic drug such as bicillin would not prevent the viral diseases that occur throughout the

*Bicillin as
prophylaxis*

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year. However, the course of a virus disease, if not complicated by bacterial infections, is usually fairly short and not serious.

For the past year 18 of the children in our cerebral palsy program were placed on bicillin, the long-acting, 200,000 unit tablet supplied by Weyth. One tablet was given daily. It had been our experience the previous year that the attendance at the nursery school was interfered with by repeated infections and it was our purpose to see whether or not we could improve the situation with the use of a prophylactic drug. (Table I gives the pertinent facts about the children.) It is a small nursery school with not more than 24 children registered and the daily quota limited to 10. It was therefore not feasible to set up a controlled experiment, giving the drug to every other child. An attempt was made to match each child with a normal child in practice as far as age, sex, siblings, and economics were concerned, but there were so many variables to consider that it was concluded that this was not a valid control. A comparison of the children during the experimental year with the health of the same children the previous year obviously would not be a satisfactory set-up. Like many clinical trials, the variables are so uncontrollable that the point under consideration is masked statistically. It was therefore decided to use other criteria for evaluating results.

Mothers will not continue therapy of any kind for a long period of time if it serves no purpose. The faithfulness with which the drug was continued was therefore noted. The mothers not only continued it but in a few instances confessed that they gave it to normal (nonneurological) siblings because they were now having more frequent infections than the brain-damaged child. Mothers living out of town, reporting on the drug, would state that the patient was free of colds until the medicine was gone and then the colds recurred. Mothers of children from our clinic who had

not been on prophylaxis asked for it after talking to parents of other patients who were on the drug. A severely allergic child in the group was maintained in a better state of health while on it. Another allergic child in the nursery school who was sensitive to penicillin and therefore not placed on it continued to have frequent colds. On this basis, it was our opinion that the use of bicillin in this small series of cases during the winter of 1954-55 helped to maintain the children in better health than they had been either the previous winter or than the children of the same age, well or handicapped, who were not on prophylaxis.

SUMMARY

Bicillin tablets, the long-acting 200,000 unit variety, were given in the dosage of 1 tablet daily to a group of brain-damaged children prone to infection. The children in general reacted favorably to the drug. There were no adverse reactions or allergies to the drug. The school attendance was good; the mothers continued the patients on the drug with a good deal of enthusiasm and reported the recurrence of infection when the drug was discontinued. There were a number of instances where other children in the family were placed on the drug, contrary to our instructions, because the mother believed that the brain-damaged child had profited by the use of the drug.

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TABLE I. PROPHYLACTIC USE OF BICILLIN IN BRAIN-DAMAGED CHILDREN

<u>No.</u>	<u>Case</u>	<u>Age (Years)</u>	<u>Sex</u>	<u>Siblings</u>	<u>Diagnosis</u>	<u>Results</u>	<u>School</u>	<u>Remarks</u>
1.	M.A.	4 $\frac{1}{2}$	M	Yes	Retrolental fibro- plasia. Atonia.	Favorable	C.P. Residence	Discontinued after transfer.
2.	S.B.	3 $\frac{1}{2}$	M	No	Spastic hemiplegia	Favorable	Normal nursery school	Had adenotonsillectomy. Drug discontinued after this.
3.	K.B.	5	F	No	Athetoid	Question- able	Sunshine School for handicapped	Had many infections and treated repeatedly with other drugs.
4.	D.C.	2 $\frac{1}{2}$	F	Yes	Spastic paraplegia	Favorable	Come and go basis	Crowded household.
5.	J.C.	2	M	No	Ataxic	Favorable	Come and go basis	Not much outside contact, but many colds.
6.	J.E.	5	M	Yes	Spastic quadriplegia	Favorable	Come and go basis	Extremely prone to infections.
7.	E.F.	4	M	Yes	Tremor	Inconclu- sive		Not followed long enough to be evaluated.
8.	R.G.	3	M	Yes	Spastic quadriplegia	Favorable	Nursery School (poor attendance)	Very prone to infections.
9.	J.H.	3	M	Yes	Spastic paraplegia	Favorable	Come and go basis	Mother stated child relapsed into frequent colds when drug was discontinued.
10.	R.H.	5	M	Yes	Rigid athetoid	Favorable	Nursery School	Severely handicapped.
11.	S.H.	4	F	Yes	rigid athetoid	Favorable	Come and go basis	Severely handicapped
12.	C.A.J.	3 $\frac{1}{2}$	F	Yes	Seizures. Congenital anomalies. Retarded. Allergic.	Favorable	Come and go basis.	Management of allergy and seiz- ures enhanced by decreased infections.
13.	J.A.K.	5	F	Yes	Spastic hemiplegia	Favorable	Sunshine School for handicapped	Asked for drug because other parents felt it helped their children.
14.	C.N.	4 $\frac{1}{2}$	F	No	Spastic paraplegia	Favorable	Nursery School	Frequent colds.
15.	R.P.	3	F	No	Spastic hemiplegia	Favorable	Nursery School	Frequent colds.
16.	M.T.	4 $\frac{1}{2}$	M	Yes	Spastic paraplegia	Favorable	Sunshine School for handicapped	Asked for it because it helped other children.
17.	C.W.	4 $\frac{1}{2}$	F	Yes	Autistic. Delayed development.	Favorable	Come and go basis	Better than siblings.
18.	E.W.	4 $\frac{1}{2}$	F	Yes	Ataxic	Favorable	Sunshine School for handicapped	Mother enthusiastic about drug - placed siblings on it.

Lecture

Neurological Risk

H.E. Helander MD *

May 11 1963

Surgical
Meeting
at CHH

marked

The past 10 or 12 years has witnessed a ^{marked} increase in interest in the neurological diseases of childhood. There are several reasons for it. ^{Public health measures} The infectious diseases have been controlled by public health measures, immunizations, and antibiotics. ~~Heaps~~ Such diseases as typhoid fever, diphtheria, pertussis, & even polio are practically never seen any more and mastoiditis, empyema, tuberculosis and osteomyelitis have become relatively rare. This has freed the physician particularly the Pediatrician to devote more study to the chronic noninfectious diseases. ^{Parents} Parents groups have flourished and they have not only exerted pressure but have raised money to implement the investigation of various disease categories. ^{also} The government, especially the ~~National~~ Division of Neurological Diseases of the U. S. Dept. of Health has contributed heavily. Director Child Development Center - Children's Hospital San Francisco, Calif

Neurological Risk
Helander

2 funds for research & training in the field.

Now as a President with poliomyelitis focused attention on this disease, ^{& now} one with a retarded sister is focusing on Mental retardation. ^{However} Future years will probably attribute the greatest advance ^{to} the discoveries ^{that have been made} in the basic sciences. The revelation that several syndromes are due to aberrations in our chromosomal make up has certainly been a great break through in knowledge & understanding of deviant individuals. Chemistry & enzyme functions likewise have revealed another group of individuals who ~~have~~ are developing abnormally due to in born errors of metabolism. phenylketonuria, galactosemia and numerous others can now be differentiated & labeled accurately thus removing them from the waste basket of idiopathic retardation.

11 Children with ^{the observed} abnormalities present a picture different from that of the well designed child who suffers an insult to the nervous system such as ^{from} a bout of hypoxia or a skull fracture in early infancy or childhood. It is not particularly difficult to differentiate the children. ^{Interestingly} ~~and~~ ^{centers} are being

3) Interestingly, even before Pres Kennedy's Establishment of an Institute in Human Development at Bethesda, many medical schools & Hospitals had started Child Development centers. ~~with~~ Pediatricians & other physicians, as well as, ~~other~~ medical personnel dealing with children have felt the need for a facility to which they could send the atypical or deviant child for a total evaluation of his performance. There is no question in my mind but that someday such diagnostic ^{strengths} facilities will be available as much a part of the Hospital set up as is now the various laboratories with their skilled personnel.

The first slide shows the staff members of our Development Center.

A pediatrician sees the child first and arranges for ~~both~~ the individual laboratory procedures and other medical consultants.

The social worker makes a careful survey of the home ^{situation} environment.

A psychological profile of the child's abilities is obtained.

Educational evaluation is made at the proper age - often as early as 18 mo or some estimate of the child's trainability & sociability can be started.

Speech, hearing & reading analysis is done again at the proper age.

These evaluations are followed by conferences & interpretations to the parents. Assisting the parents to find a proper educational or training facility is also done a part of the program. P.T & O.T as well as speech, remedial reading & D.S. experience is given.

The next slide shows the curve of a child's performance. It illustrates the difference between a child well designed

but suffering from one

4) who is of overall poor design ~~involving~~
rehabilitation such as a mongrel. The middle
line 10 - represents the average individual.
A mongrel or other congenitally rebarbed child's
curve will be more uniform ^{or flattened} & below this
line, some ^{points} may hit the normal especially in
being verbal. There are children who talk a lot but
don't say much. The British have come up with
the happy designation of the Cocktail Syndrome. Nychocephalic
are particularly apt to fall into this category. A superior
child uninjured will also have a flatter curve
but above the median line. The curve shown
in this figure is a child with an I.Q. of ^{actually} 120.
but with dips ~~way~~ below the line in a
couple of areas - It happens to be in reading &
perceptual relations. Dyslexia is a real aphasia
^{or color blindness} is in your adult with a stroke. (Some crackpot geniuses
may come from this group) They would have been better
geniuses if they had not been injured, not all
geniuses are crackpot. It has been well documented
by many studies prospective & retrospective that
insult to the growing brain will leave these
kind of voids. They are subtle changes

5. Very often not detected until the first or second grade. Unfortunately then they are still ignored for a year or two until the children are frustrated, have lost confidence in themselves, hate school & are on their way to trouble.

As surgeons, I am sure you all are still very much aware of the Staphylococcus problem. The hand was overplayed on antibiotics, technique let down & we were in trouble. The defenses had to be tightened up. ^{A similar} The same situation now exists in the neurological field. There are so many new drugs for pain & for relaxation, there are many anaesthetics instead of only ether, there is open heart surgery, cardiac massage, etc. We have not had and still are not getting enough instruction to be adequately cautious when we are dealing with the young; the still immature, growing & unfolding brain.

Therefore I would like to call your attention to the following hazards - Slide III

1. Drugs - As a surgeon you may be called upon to give medication to a pregnant woman. The foetus is vulnerable or as a surgeon you may be operating on a premature with intestinal atresia, diaphragmatic hernia or any other emergency condition. Oxygen has produced blindness

6) Thioposnycin diaphers, chloramycetin death
Thalidomide ghastly deformities. Please ~~choose~~^{use}
drug reluctantly & choose them with great care
for the young born or unborn,

2. Anaesthesia - Infants do not tolerate prolonged
hypoxia. They may survive but a few
cells in the N.S. ^{are almost gone} may drop out. Please
be cautious. The survivors of Cardiac arrest
that I have seen, would have been better off
not revived. Fortunately I have not seen many.

3. Anemia increases the hazard of hypoxia. ~~Capillary~~
Anaesthesia in infants & young children with
a hemoglobin of 10 grams ^{or below} is a definite hazard.
The longer & deeper the Anaesthesia the greater the
risk.

4. Fluids & electrolytes. A child is thrown
out of balance much more readily than
the adult. Starvation, vomiting, diarrhea
prior to surgery will increase the risk ~~immensely~~^{greatly}.
Over hydration is a real hazard. It is so
easy to keep fluid running into the vein. A
Newborn or child of 9-10 lbs who dies
post operatively often is water logged at post.

5. Emotional reactions. Children have long
memories. Some of the most painful

7) are suppressed and forgotten, but they have
a reflex reaction may remain and be a
detriment through out life. Under 10 months
is probably as safe a time emotionally as any to
have a short operation if hospitalization is not
too prolonged. From 10 or 12 mos to 3 years
is the most difficult time. The child is too
young to explain the procedure and he is very
fearful of losing sight of his mother. In general
Only in very exceptional cases should the mother ~~not~~
be denied being with the child for many hours
a day. The child from 3 to 7 or 8 is usually
only afraid of being hurt. If he has been dealt
with honestly ^{by his parents} frankness is the best policy.
After 9 or 10 years of age a child begins to be
concerned about himself. He may be afraid of
mutilation or death, and he may be
reluctant to reveal his fears. He too should
be dealt with frankly & at a higher level of
understanding than the younger child.
New knowledge is being ~~discovered~~ ^{acquired} daily
from our many research laboratories there is not going
to be a magic vaccine against most of the tragedies of our
handicapped children. A great deal can be done by lightening up all of our
attitudes & taking

unnecessary risks

~~pp 44 - did I have that earlier .~~
~~page 52 - put in statement~~

*Abbreviations
of Diary*

MEDICAL EDUCATION IN THE SIXTIES--A VIEW THE SECOND TIME 'ROUND.

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Diary abbreviations

History may record the changes in medical education of the Sixties as equal in importance to the Flexner studies a half century earlier. The Flexner study resulted in a marked improvement in medical education, placed this country in the forefront, and reversed the trend of educators trekking to Europe to attain stature in the medical field. Since then, Medicine, Surgery, and Obstetrics made great strides and subspecialties developed at a rapid pace. Pediatrics struggled hard to break away from Internal Medicine, and other specialties emerged in rapid succession: radiology, ophthalmology, otorhinolaryngology, endocrinology, cardiology--almost ad infinitum. Psychiatry gained in stature and was asking for recognition. Each new group wanted a voice in education. The perennial problem was space and time in the curriculum.

Upon retirement from practice in 1967, I asked the Dean of the University of California School of Medicine in San Francisco for permission to attend classes as a student for several reasons, primarily a yen to look at medical education from the student's viewpoint. The time and place was fortuitous. The Free Speech Movement and student rebellion had reached their peak in Berkeley, California, and the medical school was bound to feel their impact, since a high proportion of its admissions came from Berkeley. The faculty and administration had been studying the curriculum and medical education for more than a year and were ready to

introduce major revisions. They invited me to become a member of the Curriculum Committee. I kept a diary of events in order to have some written reference for the future which would be more precise than memory. In rereading that diary, it seems like ancient history--events have moved so fast in the past five years.

Pressure had been put on medical schools to change entrance requirements, with a new stress on the importance of the social sciences and the humanities. This meant that entering medical students were no longer uniformly prepared, resulting in the criticism of the lock-step method. Some students resented the repetition of courses already taken in college; others felt unequal to absorbing advanced work without previous preparation. "What is relevant?" was asked ad nauseum. The modern students were also anxious to be 'involved'. They were tired of being passive recipients. Many had been in classrooms almost uninterruptedly since nursery school days (students need sabbaticals as much as faculty), although seldom were the war veterans, or those who had to take time out to work, bored even by the lectures.

As a pediatrician who had helped to rear this generation, and as a faculty member who had taught medical students, it was not difficult to interpret many of their reactions. These were the post-war, post-depression, baby boom generation. They were raised in affluence (I don't want my child to go through what I have), with increased permissiveness (feed him when he is hungry, pick him up when he cries), they were wanted and they were lauded

(reward with praise). In reality, they were no brighter than their forbears; they were more exposed to information but were often extremely naive in regard to the vicissitudes of life.

The student's concern for the poor and for minorities was a healthy and a normal reaction for this generation. Breasted, in his book, "The Dawn of Conscience", attributes the 'dawn' to abundance; when people no longer have to struggle for mere survival they begin to think of helping their fellow men. History records a renaissance in art, a reformation in religion, a scientific and technical explosion, and the time is probably here for a social reformation. With travel and communication having reached its present status, the time is at hand when all the peoples of the earth must be integrated into the family of man--or of humans.

In addition to the study of the curriculum by the Committee, the administration also hired an educational psychiatrist, whose function was to study a) the students' reactions to the classes, b) the faculty, and c) the teaching and learning methods. From my 'returnee' student's point of view, there were some obvious defects in the curriculum. The basic sciences were taught in a parallel rather than integrated fashion. Each department was concerned with and determined to present its own subject matter in its entirety and without awareness usually of the material given by other departments. Since, the human body does not function in independent, unrelated systems, as a result there was unnecessary

duplication. Thus, the cell was described in detail in microbiology, histology, biochemistry, human development and often also in anatomy, neuroanatomy, etc. The cell was an 'in' subject in the late Sixties. To introduce change and hopefully to improve both morale and learning, the first year faculty met and discussed the material presented, the role of each department, areas of duplication, and methods of presentation. There was much teaching material available, such as colored slides, films, models, laboratory tests, and live subjects.

Students were also appointed to the major committees of the school. It would be unrealistic, however, to credit much change as due to this act, but it was a good gesture and an additional method of obtaining student information. As noted earlier, the curriculum was under study, with numerous committees working on each phase of possible change. A faculty person on sabbatical had visited many of the major medical schools to survey teaching methods and their curricula. Recruiters from the administration had visited minority colleges and high schools, in an attempt to increase applicants from these groups. Locally, students continued to recruit and participate in the interviewing of applicants. Caught between faculty, students, and the administration, I thought the administration showed great patience and restraint in proceeding with the studies and changes in a logical and constructive manner, without being pressured into unrealistic modifications by a group

of activist students. It should be added that the majority of the students were cooperative and satisfied with the courses but ten percent can make a big noise, if so inclined.

My major concern was with the basic sciences and, later, a review of the clerkships. The main alterations, additions and substitutions in medical training follow. The so-called 'lock-step' method was relaxed. Students who had taken subjects as undergraduates or in graduate school could substitute them for the equivalent freshmen course, provided they showed evidence, by oral or written examination, that the subject matter had been covered adequately. This usually applied to the chemistries and to microbiology. In some instances, graduate students even taught gross anatomy, histology, or some other medical subjects. Also, if a student failed in one course but passed creditably in others, he was required to repeat the subject, but would not have to repeat the entire semester. A student who might take time out to work or, in the case of women, for pregnancy could re-enter later or finish the work during the summer quarter. It also became possible, by taking courses during the summer session and passing examination in others, to finish the required medical school courses in less than four years.

"Ambulatory and Community Medicine" was an early new addition to the basic courses in the first year. This deals with the delivery of health services, medical facilities in the community, and the agencies (besides medicine) which serve the health field. It is

a very popular course and well liked by the students. As time went on, additional topics were added for lack of time elsewhere, but the course seemed somewhat weakened thereby. For example: "World Health" was condensed and assigned time for only a few lectures in "Community Medicine". Similar condensations and eliminations were made, in an attempt to shorten the basic sciences and thereby to make more room for clinical courses and to meet the demands of the clinical faculties.

A course in "Human Development" was introduced which consisted of a review of embryology and with clinical demonstrations of defects due to interference with organogenesis and fetal development. The pediatricians had urged the addition of this course as important to all students, not only pediatricians, inasmuch as defects may be the antecedents to diseases which develop later. Genetics was also added to this course but, again, crowded both subjects, even though some extra hours were granted. Heredity and environment are important factors in development. Although some lectures were given on early postnatal development and childhood learning, again there was inadequate time to develop this phase fully or to illustrate it with clinical material. Nutrition may be added but, again, unless more time is allotted, the impact of the material will suffer. It is of interest to note that nutrition, which plays such an important role in schools for veterinarians and animal husbandry, has been so long and persistently neglected in medicine. Although the obstetrical department participates, the subjects

discussed concern the placenta, birth control, and abortion, with less time devoted to the effect on the child of abnormal pregnancy and delivery.

A new course, introduced under the title "Human Sexuality", covers a subject almost completely ignored by medical educators in the past. Hopefully, teaching of this subject to all medical students (and to nurses) will place sex in proper perspective, and restore some sanity to the subject of human reproduction.

Another important addition was "Communication Techniques". Physicians need to learn early to be comfortable and at ease with patients if they are to get an adequate history. But communicating with patients is not enough; doctors need to learn to communicate with each other and with the public.

What, then, happened to the old favorites--anatomy, neuro-anatomy, histology, pathology, biochemistry, microbiology? As a devotee of the basic sciences, especially the anatomical, I was apprehensive about the encroachment on the time formerly allotted to these subjects. The pressure, however, did stimulate a new look at teaching techniques. The joint discussions by members of the faculty resulted in less duplication. Gross anatomy was modified by the use of some predissected specimens, greater use of models, colored slides, and films. These techniques were further supplemented by surface anatomy. This gave the students a chance to see patients, increase their powers of observation, to note surface pathology, and to observe the relation of surface

anatomy to various procedures, such as spinal tap, surgical incisions, etc. They were also given some instruction in palpation, percussion, and auscultation. The faculty worked hard and enthusiastically with the students. The neuroanatomists gave unstintingly of their time to elucidate this difficult but important subject. Though classical dissection suffered, it remains to be seen whether or not this will be detrimental to future medical practice. Certainly, surgeons will have to return to the dissecting table, but will the others? It is distressing to hear some students make such remarks as: "I am going to major in psychiatry, and anatomy won't be of much help to me". As a practicing physician, I knew better.

Microbiology and pharmacology were especially interesting to me as a clinician. The introduction of many immunizations, the breakthrough with antibiotics, and the advancement in public health had revolutionized practice during my tenure. The story of this, as related by the experts in these fields, was an exciting experience.

It is difficult to separate the roles of pathology, physiology and biochemistry. The increased sophistication of such laboratory techniques as electronmicroscopy and electrophoresis has both extended and simplified the analysis of body structure and function. These studies are as exciting to biologists as space exploration is to the engineers.

In the second year, before entry to the clerkships, the course, "Introduction to Clinical Medicine" was given. This presented

diseases by systems: digestive, pulmonary, cardiovascular, genito-urinary, neurological, etc. The presentations were followed by small discussion groups on the material presented. I had a strong feeling that the students should go from these lectures and seminars to a museum of pathology, arranged in advance to correlate with the lecture subject, and well staffed by pathologists to answer questions and amplify the lectures.

The clerkships were more difficult to evaluate. They were given at three or four hospitals in the city, and instruction varied somewhat at each place. In the public and University hospitals, instruction was left primarily to the regular house staff where the layers of attendants from interns through residents, Fellows and junior staff often left the student too much on his own. The student often felt like a fifth wheel, with no feedback on his histories or the physical examinations (which were seldom supervised). The resident staff also varied a great deal in teaching ability. Since they, too, had come up by the same route, most of them had not been taught these skills. The private hospitals were more apt to utilize the senior faculty for teaching purposes. Thus, although goals had been set up for the clerkships, the student feedback on the evaluation sheets indicated that many of these goals had not been actualized.

Medicine appeared to have fared best. The average daily problems in pediatrics and obstetrics fared the worst. These two departments, dealing as they do with the problems of children and

mothers, suffer from lack of the feminine touch. Men cannot play the role of both mother and father to young infants, and cannot fully comprehend pregnancy and delivery. Fortunately, the administration is aware of the importance of women to medicine and have increased the enrollment^{in the School} to a figure more nearly like that of other countries, or about 25 percent.

The student concern with the delivery of health care brought to fore the importance of other health workers in the field, particularly nurses, public health officers, social workers, speech therapists, physiotherapists, occupational therapists, and many others. The team approach provides superior service in the management of complex problems. As an example: In the Child Development Center at Children's Hospital in San Francisco, started in 1952, the physician headed a team which consisted of all the above-mentioned workers and, in addition, a nursery school teacher who added a great deal to the understanding of the child. A psychologist did the psychometric measurements and an educator worked with the dyslexic patients. Available also to the pediatrician was a slate of medical consultants. Although this was a pioneer adventure twenty years ago, it is now almost a routine part of many pediatric departments. It should be imitated by adult medicine and probably will be more extensively used in the future.

Two questions were asked/often. Do you find medical education very different now from the first 'round? Are there many new things to learn? My answer was negative to both questions. A

practicing pediatrician must keep up to date. This is not difficult in a large city with a medical school. There are students and house staff to be taught, daily hospital rounds, weekly conferences, and local, state and national meetings to attend, in addition to scanning the medical literature that comes across the desk. The basic material, the structure and function of the body, is the same, - anatomy, physiology, chemistry, bacteriology, pathology, pharmacology. The differences lies elsewhere, chiefly in human relations. As students we were less cocky, classes were smaller, there were fewer middlemen and a happier relationship between the faculty and the students.

My greatest concern is for the encroachment on the basic sciences. It is somewhat of a relief, therefore, to be told that there is a return to these, and a restoration of some of the time taken away from them. This will be accomplished by a return during the fourth year, to review and apply the knowledge to the clinical care of patients. No learning is one-shot; it must be reviewed and applied. The new courses should make it easier, especially for the solo beginner in practice, to meet patients, communicate with them, and to be aware of the existing health facilities and personnel in the community.

Who teaches the teachers? A peer evaluation is contemplated. Hopefully this will be beneficial in improving teaching methods. Fellows and residents should participate in such sessions.

The experience was fun and very rewarding.

1973

A QUARTER OF A CENTURY OF MOTHERS' MILK BANK OF SAN FRANCISCO

Verrel Weber B.A., M.Ed.
Hulda E. Thelander M.D.

*orig of
published
article*

As the Mothers' Milk Bank neared its twenty-fifth birthday, it was deemed advisable to make a study of the babies who had been on the services during the past quarter of a century.

The number of physicians using the service has varied from year to year. In 1967 there were only 12, in 1972 there were 47, and in 1974, 85. The reason for this is not readily apparent. There is, however, an indication in the literature of an increasing interest both among mothers and physicians, not only in breast feeding, but also in more natural childbirth. Both the Minnesota Medical Bulletin and the University of California News have recently carried articles on these subjects. If medical schools are interested, the interest should gradually extend down to the public via interns and residents so trained.

It is regretted that much of the information is less complete than we would like, especially in these areas:

1. Economic and marital status of recipients' parents
2. Ethnic background (considered an invasion of privacy of recipients' parents)
3. Reason for ordering mothers' milk not always given freely or accurately
4. Weight gain while on service

A partial explanation for this is that mothers' milk is dispensed only on the request of a physician. The requests usually come to the Mothers' Milk Bank from nurses or other personnel in the hospitals or doctors' offices.

Original Published

Procedure. This study is based on a complete review of all the material in the folder of every recipient. Each folder was examined, pertinent information abstracted, entered on a work sheet and later transferred to tally sheets, one for each year.

Number of babies on service. Since the Mothers' Milk Bank opened in 1948, 2171 babies have received mothers' milk on prescription. The distribution has varied over the years from as low as 22 in 1965 to 151 in 1972 and 271 in 1974. There was a marked drop between 1960 and 1968 and a sharp increase in 1970 to 1974 in spite of a declining birth rate these latter years.

Size and age at beginning of service. About 75% of the infants were put on the service during the first week of life. The birth weight of the infants ranged from 1½ to 10 pounds, distributed as follows:

1-2 pounds	3½%
2-3 "	14.5%
3-4 "	14.5%
4-5 "	21%
6 "	23%

Not all weights were available.

Reasons for requesting service. Although prematurity was the most common cause, many other causes were listed. These include:

Cardiac and vascular conditions such, as congenital heart disease, Rh and ABO incompatibilities, kernicterus, anemia, thrombocytopenia.

Gastro-enteric symptoms, which were allergies, diarrhea, bowel obstruction, mal-absorption, pyloric stenosis, and various other signs of food intolerance or malnutrition.

Neurological conditions, including convulsions, skull fracture, hydrocephalus, tremors, and possible cerebral palsy
Respiratory distress, chiefly evidence of hyaline membrane disease

Infection: Among those listed were, Chicken pox exposure, enteritis, hepatitis, meningitis, poliomyelitis, pneumonia, sepsis.

Other conditions listed: Caesarian section, congenital anomalies, dehydration, post-surgery, metabolic insufficiencies, difficult delivery, placenta praevia, and loss of weight

Location of recipients. 45% of the babies were in San Francisco; 30% were in the Bay Area and 25% were outside this area. Breast milk was sent to Washington State, New Mexico, Idaho, Texas, Hawaii, Manila, and Mexico City.

Parentage. Unfortunately, for reasons noted earlier, information on this subject is incomplete. Although most of the babies served have been Caucasian, there have also been Blacks, Mexicans, Chinese, Japanese, and American Indians. From 1970 on, the number of recipients for whom no father was indicated has risen sharply, from 2.9% between 1948 and 1969 to 27% in 1974. This may in part be due to a greater hesitancy some years ago about revealing out-of-wedlock situations, but may also reflect the increased sexual freedom among teenagers.

Sex. Each year male recipients have outnumbered females on the average of 55% to 45%. There are more males born than females but also, in work with handicapped children, whether it is gross physical handicaps or learning disabilities, the males always outnumber the females.

Multiple births. There were 52 pairs of twins in the series with 16 cases of surviving twin; 6 groups of triplets with 3 cases of one or two surviving triplets.

Results. As noted earlier, information and follow-up is incomplete. However, some babies are known to have expired while on the service or soon after being taken off. Letters from recipients and some from physicians indicate that, in general, results have been favorable to very favorable. Also, an Alumni Association has been formed, and "homecomings" celebrated. There is a volume of letters from grateful parents, a recent one with a picture of a husky, athletic sixteen-year-old boy who was born prematurely. There is also an album of pictures sent by grateful parents of beautiful children.

Although the clinical studies of the babies have been limited, for reasons mentioned above, the Bank has contributed to research by supplying milk to many local laboratories, as well as to others across the United States, and even to Australia. The history lists over a dozen articles published on the studies of breast milk obtained from the local bank. The Mothers' Milk Bank has also served as a source of information to many scientists interested in utilizing breast milk for their patients or hoping to establish a breast milk bank elsewhere.

Milk banks have waxed and waned. The earliest method, of course, was the wet nurse. In our file is an article entitled, "Are Milk Banks Necessary?" There always will be a need for extra breast milk. It is not a simple matter to set up or to efficiently conduct a mothers' milk bank. The devoted people who run one deserve much credit. Grateful parents and healthy children are the reward.

To: The Board of Directors Children's Hospital

From: Department of Pediatrics

purp

Pediatric care to day is a highly organized and complex community service. Fewer children need in-patient care for acute illness since a higher percentage is successfully treated at home than was possible before the advent of modern therapeutics. Most general hospitals, therefore, do not have a sufficient volume of pediatric in-patients to operate a good service. Concentrating pediatric facilities in fewer hospitals is almost a necessity. Although many communities are now operating "Children's Hospitals" there are advantages to having a pediatric unit as a part of and closely affiliated with a general hospital. The most obvious being the inclusion of obstetrical and newborn nurseries. Cross fertilization of ideas from other specialties and long term follow-up, however, are almost equally important. The pediatric staff does not wish to eliminate the other departments but it does feel that pediatrics must be strengthened here or else it will lose its present reputation as a Children's Hospital to some other institution. In fact, if Children's Hospital is to deserve its name and in clear conscience retain it, the pediatric service must be better supported.

Children's Hospital has a long tradition of services to children and in many ways it is suited to continue and to expand its work. It has new cheerful medical and surgical wards; a contagious disease unit, a child guidance program, an excellent laboratory geared to all pediatric needs, good x-ray facilities with a trained pediatric radiologist, well equipped and staffed newborn and premature nurseries, a mothers milk bank and at least the beginning of special services such as the cerebral palsy nursery program and the youth clinic. There is also a good research program.

For these achievements we are grateful. The purpose of this communication is not only to evaluate our good points but to emphasize our needs; the things we must have if this is to be a real pediatric center.

*To Board of Directors
Children's Hospital
10/10/50*

I. Resident Staff. In order to attract the best students to our program, we must have a greater number of patients on service status. These are the patients that the house staff will care for as their own under the guidance and supervision of qualified and experienced staff members. A well organized educational program alone is not sufficient inducement. A variety and volume of patients is also necessary. There should be funds for the care of many more patients on a free or part pay basis.

II. In order to increase the number of service in-patients, a big well conducted out-patient service is a prime necessity. With the Stanford Medical School leaving, this is an opportune time to enlarge these services. A new plant will be welcome but of far greater importance is an organization in which the entire personnel is trained to serve the patients' needs. Services must be patient oriented.

III. Special programs often sought after by special groups, such as aid to retarded, etc., should be developed along the lines of the Cerebral Palsy and Youth services. These should serve both private and clinic patients. All such programs should be co-ordinated into a strong ambulatory service of which the indigent or part pay clinics are only one part.

IV. Social workers should serve all children's needs. At present it is inadequate for even the small out-patient service we have.

V. Pediatric Surgery. A pediatric surgical service is an extremely important element of a good pediatric center. There is no significant pediatric surgery being done at this hospital at present. Such a service could be built. In fact, there is none in existence now in Northern California. Children's Hospital could chalk up for itself another very important first. It should have the status of the other clinical surgical services.

VI. A full time Director of the Pediatric Services should be considered for the near future. At present there is a part time internist on the Administrative Staff and an internist as part time Medical Director of the O.P.D.

VII. The pediatric staff feels the need for better communication with the Board. The members would like to know the Board's feelings and policies regarding the childrens division of the hospital. What are your goals?

The goal of the pediatric staff is a hospital "where no child knocks in vain" and where that child will get the best care it is possible to provide.

A qualified staff, good facilities, an eager house staff, a large clinic service are all interdependent for the operation of a first rate pediatric unit. Subtract any one of these and the quality of care decreases; achieve all of them and the morale of the hospital as well as the quality of care will be a credit to San Francisco and its citizens. May we have it?

Edward A Smith, M.D.

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EXANTHEM SUBITUM

30 cases - Children's Hospital 1929 - March 1938

I. Incidence by years

1929	1 case
1930	2 cases
1931	1 case
1932	2 cases
1933	5 cases
1934	3 cases
1935	2 cases
1936	6 cases
1937	6 cases
1938 (to March-4)	2 cases

✓ II. Incidence by months

<u>Month</u>	<u>No. of cases</u>	1929-39
January	1	
February	2	
March	3	
April	0	
May	3	
June	2	
July	4	
August	2	
September	3	
October	5	
November	2	
December	3	

Conclusion: Probably no seasonal incidence.

✓ III. Incidence by age

<u>Age</u>	<u>No. of cases</u>	
2 months	1	}
4 months	1	
5 months	2	
7 months	1	
8 months	1	}
9 months	1	
10 months	4	
14 months	3	
15 months	1	}
16 months	5	
18 months	4	
19 months	1	
2 years	1	}
2½ years	1	
3 years	1	
4 years	2	
		1 - 6 months = 4 cases
		6 - 12 months = 7 cases
		12 - 18 months = 13 cases
		18 months - 2 years = 1 case
		2 years = 2 cases
		3 years = 1 case
		4 years = 2 cases

IV. Present Illness

Cold preceding onset	15 cases	50%
First cold	2 cases	7%
Irritability as first sign	10 cases	66%
Sudden rise in temperature	23 cases	77%
No preceding cold or illness	6 cases	20%
Convulsions	7 cases	23%
Preceded by diarrhea	1 case	

V. Physical Examination

1. "Did not appear ill," "alert and cheerful"		
"remarkably well for high temperature, etc."	13 cases	43%
2. Throat red	21 cases	70%
3. Tonsils enlarged	12 cases	40%
4. Post cervical glands shotty	8 cases	30%
5. Note of post auricular glands:	3 cases	10%
A few showed relative bradycardia.		

VI. Rash

a. <u>Day of development /p onset of fever.</u>	<u>No. of cases</u>	
3rd day	3 cases	10%
4th day	18 cases	60%
5th day	6 cases	20%
Dismissed /a rash developed (over 5 d.)	2 cases	
b. <u>Description.</u>		
Macular	17 cases	
Erythematous	2 cases	
Papular	2 cases	
Morbilliform	1 case	
Indefinite	6 cases	
c. <u>Distribution</u>		
Body, neck and face	16 cases	
Body and extremities	1 case	
Body alone	6 cases	
d. <u>Duration</u>		
1 day	4 cases	
2 days	2 cases	
3 days	3 cases	

VII. Throat Culture:

Hem. Strep.	1 case
Strep. viridans	1 case
Strep. (not plated)	13 cases
Only for K.L.	6 cases

VII. Throat Culture. (con't)

No strep. noted	3 cases
Not done	6 cases

VIII. White Blood Count

<u>A. Total</u>	<u>No. of counts.</u> 53	<u>% Total</u>
1,000	1	2%
2,000	2	4%
3,000	1	2%
4,000	7	14%
5,000	8	16%
6,000	11	22%
7,000	5	10%
8,000	8	16%
9,000	5	10%
10,000	3	6%
11,000	2	4%

<u>B. Differential</u>	Taken - 1) Day of rash 2) Two or more days after rash.	
No. of counts		
90% lymph.	1	1
80% lymph.	3	3
70% lymph.	6	6
60% lymph.	7	6
50% lymph.	6	2
40% lymph.	11	2
30% lymph.	10	
20% lymph.	5	
10% lymph.	3	

Comment: 1) Often count taken only on admission and not repeated day of rash or just before.

2) Lower counts occurred on or day preceding eruption of rash.

3) All differentials with over 70% lymph on day or 1 d. /a rash
6 out of 7 with 60% lymph on day or 1 d. /a rash.

4) 2 out of 6 with 50% lymph on day or 1 d. /a rash.
2 out of 11 with 40% lymph on day or 1 d. /a rash.

5) All differentials with below 40% lymph taken 2 or more days after rash.
8 out of 11 counts with 40% lymph taken 2 or more d. /a rash.
4 out of 6 counts with 50% lymph taken 2 or more days /a rash.

Other diagnoses considered:

Measles	3 cases
German Measles	1 case
Poliomyelitis	2 cases
Pneumonia	1 case
Head injury	1 case

EXANTHEM SUBITUM

30 cases - Children's Hospital 1929 - March 1939
 41 cases - Children's Hospital 1929 - October 1939

I. Incidence by years

1929	1 case
1930	2 cases
1931	1 case
1932	2 cases
1933	5 cases
1934	3 cases
1935	2 cases
1936	6 cases
1937	6 cases
1938	6 cases
1939	5 cases

II. Incidence by months

<u>Month</u>	<u>No. of cases</u>
January	1
February	2
March	6
April	2
May	3
June	3
July	5
August	2
September	6
October	6
November	2
December	3

Conclusion: Probably no seasonal incidence.

III. Incidence by age

<u>Age</u>	<u>No. of cases</u>	
2 months	1	
4 months	1	1 - 6 months = 4 cases
5 months	2	
7 months	1	
8 months	1	6 - 12 months = 9 cases
9 months	1	
10 months	5	
11 months	1	
14 months	3	
15 months	1	12 - 18 months = 15 cases
16 months	5	
18 months	6	
19 months	1	18 months - 2 years = 2 cases
20 months	1	
2 years	5	
2½ years	2	2 years = 7 cases
3 years	2	3 years = 2 cases
4 years	2	4 years = 2 cases

EXANTHEM SUBITUM

IV. Present Illness

Cold preceding onset	20 cases	50%
First cold	4 cases	10%
Irritability as first sign	12 cases	30%
Sudden rise in temperature	32 cases	80%
No preceding cold or illness	11 cases	27%
Convulsions	12 cases	30%
Preceded by diarrhea	4 cases	10%

V. Physical Examination

1. "Did not appear ill," "alert and cheerful"	17 cases	41%
"remarkably well for high temperature, etc."	31 cases	76%
2. Throat red	20 cases	50%
3. Tonsils enlarged	14 cases	34%
4. Post cervical glands shotty	4 cases	10%
5. Note of post auricular glands: A few showed relative bradycardia.		

VI. Rash

a. <u>Day of development /p onset of fever</u>	<u>No. of cases</u>	
3rd day	8 cases	20%
4th day	22 cases	50%
5th day	7 cases	19%
	3 cases	
Dismissed /a rash developed (over 5 d.)		
b. <u>Description</u>		
Macular	24 cases	
Erythematous	4 cases	
Papular		
Morbilliform		
Indefinite	8 cases	
c. <u>Distribution</u>		
Body, neck and face	23 cases	
Body and extremities	4 cases	
Body alone	6 cases	
d. <u>Duration</u>		
1 day	4 cases	
2 days	7 cases	
3 days	7 cases	
4 days	1 case	

VII. Throat Culture:

Hem. Strep.	1 case
Strep. viridans	1 case
Strep. (not plated)	19 cases
Only for K.L.	6 cases

EXANTHEM SUBITUM

VII. Throat Culture (con't)

No strep. noted
Not done

4 cases
7 cases

VIII. White Blood Count

<u>A. Total</u>	<u>No. of counts 73</u>	<u>% Total</u>
1,000	1	
2,000	3	1.5%
3,000	2	4%
4,000	11	1.4%
5,000	8	15%
6,000	15	10%
7,000	6	20%
8,000	11	8%
9,000	6	15%
10,000	7	8%
11,000	3	9%
		4%

B. Differential

Taken - 1) Day of rash 2) two or more days
after rash

	<u>No. of counts</u>		
90% lymph.	1	1	
80% lymph.	4	4	
70% lymph.	9	9	
60% lymph.	10	8	
50% lymph.	6	4	4
40% lymph.	15	4	11
30% lymph.	16		14
20% lymph.	7		7
10% lymph.	4		4

- Comment: 1) Often count taken only on admission and not repeated day of rash or just before.
 2) Lower counts occurred on or day preceding eruption of rash.
 3) All differentials with over 70% lymph. on day or 1 d. /a rash, 6 out of 7 with 60% lymph. on day or 1 d. /a rash.
 4) 2 out of 6 with 50% lymph. on day or 1 d. /a rash.
 2 out of 11 with 40% lymph. on day of 1 d. /a rash.
 5) All differentials with below 40% lymph. taken 2 or more days after rash.
 8 out of 11 counts with 40% lymph. taken 2 or more d. /a rash.
 4 out of 6 counts with 50% lymph. taken 2 or more days /a rash.

Other diagnoses considered:

Measles	5 cases
German measles	1 case
Polioomyelitis	2 cases
Pneumonia	1 case
Head injury	1 case
Typhoid	1 case

Peterman - 1000 cases .

newborn to 1 mon.	7.9 % of total
1 - 6 mos .	13.8 %
6 - 36 mos -	44.2 %
3 - 10 years -	25.1 %
10 - 16 yrs -	5.6 % .

of all cases -

Acute infections -	34 %
Idiopathic epilepsy -	23.6 %
Cerebral injury with ^{with} Peridie -	15.5 %
misc -	12.7
Tetany	8.9
not known	5.3 .

Sulbitum in 70 of total - Hospital

- Private Office .

Home calls - 33 Sulbitum - 4 conv. - 12 %

Convolutions c Sulbitum 26.6 % 15 Convolutions -

Escoe -

I would like this returned soon to save the copy

MEDICAL EDUCATION IN THE SIXTIES. Viewed from a second time 'round.

Hulda E. Thelander M.D.

Dupl

1970

History may record the sixties ^{as} a ~~significant~~ change in medical education equal in importance to the Flexner study a half century earlier. Upon retirement in 1967, I asked the dean of UCSF for permission to attend classes as a student. There were several reasons for doing this, but a major one was a desire, as a practising physician, to look at Medical Education from the students point of view. The time and place was fortuitous; the Free Speech movement and student rebellion ^{had} reached their peak in California and the impact was certain to be felt in the medical schools. I was invited by the administration to attend the meetings of the curriculum committee, - the faculty and administration had been hard at work on the evaluation of the curriculum for several ^{years?} semesters and ~~we were ready to~~ ^{of} had reached the point introduction ~~of~~ some of the revisions. I decided to keep a diary of daily events in order to have some type of reference *in the future* other than hindsight. On re-reading it now, even after this short period of time, it seems ^{like} ancient history.

The total effect of all the factors impinging on the school those years was considerable, but the single greatest factor undoubtedly was that the time for change had arrived. The Flexner study in the early part of the century resulted in marked improvement in Medical Education and placed this country in the forefront, reversing the trend of educators trekking to Europe ~~to~~ ^{to} attain ~~the~~ stature in the field of Medicine. Medicine, surgery and obstetrics had made great strides and sub-specialties ~~had~~ developed at a rapid pace, - pediatrics struggled hard to break away from internal medicine, ~~and~~ ^{and} soon other specialties emerged such as radiology, ophthalmology, otorhinology, endocrinology etc almost ad infinitum, - and each group desired a voice in education. A perennial problem was space and time in the curriculum.

Pressure had also been put on medical schools to change entrance requirements. The importance of the social sciences and the humanities was stressed ^{as} of equal importance to the biological sciences. Psychiatry was gaining in stature and was asking for recognition. It was inevitable that the students should ask, "What is relevant?" and the faculty should seek for ^{the right} A "Core curriculum".

What changes have been made and what of the future? Both as a pediatrician and as a clinical faculty member who had taught medical students for many years, it was not difficult to interpret the modern students. These students were the post-war, post-depression, baby-boom generation. They were raised in affluence, (I don't want my child to go through what I have), with increased permissiveness, (Feed him when he is hungry, pick him up when he cries), they were wanted and they were lauded by their parents, (reward with praise). Actually they were no brighter than their forebears, - more exposed to information, - yes - but often extremely naive regarding the vicissitudes of life. Their concern for the poor and for minorities was a healthy stimulus for medical education and medical practice. Breasted point out many years ago that when people no longer have to struggle for mere survival, they begin to think of their fellow men. History has recorded a renaissance in the arts, a reformation in religion, a scientific and technical explosion and the time is probably here for a social revolution, - *A time to integrate all peoples into the family of humans*

An obvious defect in the educational process was the lack of integration of subject matter. Each department was concerned ^{with} and determined to present ^{its} subject matter in its entirety, - hence lectures and discussions tended to be parrallel presentations with one department not knowing what the others were expounding. Thus the cell was described in detail in microbiology, histology, biochemistry, human development and often also in anatomy, neuroanatomy and so on. To save time and reduce repetition, the first year faculty met and discussed the material to be presented, the role of each

division and methods of presentation, such as live material, laboratory experiments, the use of films etc.

Students were given representation on all the major committees of the school, but it would be unrealistic to give that act undue ^{emphasis} recognition for changes that have taken place. The curriculum and the teaching methods had been under study for several years, numerous committees had been at work. Recruiters had visited minority Colleges and high schools in an attempt to increase the number of applicants from these groups. A faculty person on sabbatical visited many of the major Medical Schools to survey the teaching methods and the curricula. Caught, as I was between faculty and students, I thought ^{and} the faculty and the administration showed great patience and restraint in proceeding with the studies and ~~the~~ the changes in a logical and constructive manner without being pressured into unrealistic modifications by a group of activist students.

The main alterations, additions and substitutions in medical training at the school probably were the following:

1) The "lock-step" method was relaxed; students who had taken subjects either as under-graduates or in graduate school, might substitute this for the one ~~#####~~ on the curriculum provided he passed an examination satisfactorily. This applied particularly to biochemistry and microbiology, but might also apply to other subjects when students from the graduate school liked to switch to medicine. Also if a student failed in one course but passed creditably in others, he would be required to repeat that course but was not required to take the whole semester over. A student who might take time out to work, because of illness or, in the case of women, for pregnancy, ~~they~~ could re-enter and finish later or make up the work during summer months. It is also possible ^{now} by summer work and passing examinations in some subjects to finish the required courses in less than four years.

2) A course in ["]human development was introduced, with a review of embryology with and clinical illustrations of maldevelopment when organogenesis is disturbed. Genetics is given as a part of this course. As a pediatrician, this course is an important addition. ~~###~~ Heredity and early environment are very important factors not only to childhood but as antecedents to subsequent health and disease. Nutrition has not yet been added, but should become a part of medical education. Also there is still inadequate time to ^{elaborate on} ~~teach~~ human development during early childhood although some lectures are given on development of speech and socialization. Although the Obstetrical department participated in the discussions, the ^{were devoted} ~~presentations~~ ~~#####~~ primarily to the placenta, birth control and abortions. There should be more time for discussion of prenatal and paranatal factors in human growth and development. In my first round of medicine at the University of Minnesota, I worked with Dr. Fred Lyman Adair and I must confess to being somewhat disappointed with modern ~~#####~~ obstetrics. Pregnancy is not a disease; it is too often treated as such and both the time and method of delivery too often ^{is} ~~too~~ influenced by the needs of the physician instead of the patient. Women should play a greater role in the practice of obstetrics. Assembly line abortions may have sequelae of which we at present are only dimly or totally unaware.

3) another subject introduced was "Human Sexuality", a subject omitted in the past. Hopefully ~~some~~ teaching of this subject will place it in proper perspective and restore some sanity to the reproductive function of mankind. Restraint and ~~sanity~~ may be abetted by the recent reports of psychological trauma and even an increase in cervical cancer in early and promiscuous sexual activity.

4) Another important subject introduced in the first year is "Communication techniques". Physicians need to learn early, not only how to communicate with patients but also with each other.

5) Community Medicine had been introduced prior to Human Development, but the two subjects might be taught in sequence. As the name implies, community medicine deals with the delivery of health care. The course includes some lectures on World Health and with our shrinking planet, this subject needs to be expanded.

6) What, then, has happened to anatomy, neuroanatomy, histology, pathology, biochemistry, microbiology, the old favorites? As a devotee of the basic sciences and especially the anatomical ones, I have been apprehensive about the encroachment on the time allotted to these subjects. The pressure, however, has stimulated a new look at teaching methods. The joint discussion by faculty members mentioned earlier, can result in a decrease of duplicate teaching. The faculty worked hard and enthusiastically with the students. The neuroanatomists gave unstintingly of their time to elucidate this difficult but important subject. They used not only dissection, but preserved specimens, plastic models, stereos, films, slides and X-rays to help put across the material. Teaching gross anatomy likewise, was modified by the use of pre-dissected specimens, all the other techniques described above and in addition ^{was} supplemented this with surface anatomy on the wards in conjunction with the clinical faculty. Old time dissection suffered. Whether this will be detrimental to medical practice remains to be seen, certainly surgeons will have to return to the dissecting table for further study but will dissection be a loss to the rest remains to be seen. Mental discipline and medical vocabulary have been raised as two reasons for pursuing work in the dissection room, but to many this seems as only a hang-up from early centuries in the art. Clinical observations when working with handicapped children, frequently suggested that psychiatrists had failed to make necessary neurological diagnoses. Psychiatry is another branch of medicine that needs to discipline its own membership. Psychiatry like sex is overplayed in all the news media.

On a trial basis, gross anatomy was divided into two parts,- the torso and limbs being studied in one quarter and the head and neck with neuroanatomy later. Microbiology and pharmacology were interesting subjects for me ^{and} for my first 20 years in practice much time had been devoted to immunization procedures and then to the use of antibiotics. These two break-throughs along with advancement in public health revolutionized medicine. The story of this related by experts in the field was an exciting experience.

Biochemistry has largely replaced physiology. The increased sophistication of laboratory techniques ~~due to the use of~~ electromicroscopy and electrophoresis has added a new insight into endocrinology, enzymes, deficiency diseases and so on. These studies are as exciting to biologists as space exploration is to engineers.

7) Pathology will have to undergo more changes than most other subjects. ~~Like the earth in early centuries~~ It is no longer flat but three dimensional with more space than solid matter. This has raised the question, "Are autopsies necessary"?

Biopsies in surgery are still indicated and call for histologists in that field. *But the medical diagnostician relies heavily on chemical analysis,*

8) After the first three or four quarters of basic sciences, the course, "Introduction to Clinical Medicine" ^{is} the key to the subsequent studies, namely the diagnosis and treatment of disease. The course presents disease by systems,- digestive, pulmonary, cardio-vascular, genito-urinary, neurological, muscular, dermatological etc. I had a strong feeling that the students should go from these lectures and seminars to a museum of pathology and there learn both the gross and microscopic pictures of the diseases presented in the lectures.

9) Academic pediatrics tends to devote much time to the exotic diseases,- the literature teems with syndromes with one, two and often three "discoverers" names attached to an entity, probably a desire for some type of immortality prompts it. In the meantime clinical pediatrics is overwhelmed with problems of child abuse,

unwanted pregnancies, assembly line abortions, VD, drug abuse and birth defects. This school has encouraged the enrollment of more women in medicine. When given a more prominent place in the profession, they can more readily express their own expertise regarding infant and child care and the needs of women during pregnancy and child birth. In Russia where 70% of physicians are women, pregnancy is given greater consideration;- women are given time off before and after delivery with pay and with assurance of return to their job. Day care centers are provided not only for infants and preschoolers but also for older children after school. Contrary to prevailing American opinion, these centers are very well staffed and have stimulating programs for the children. In Moscow I visited a maternity ward where midwives were in attendance with each mother during labor and a doctor was in the house on call for any emergency or complication that might arise. Practically no anaesthetics were required for normal deliveries. Some American male physicians attended surgical operations and admitted, if a little grudgingly, that women surgeons performed very well. Why should n't they? They have cut and sewed routinely. I recall while on surgery as an interne, How I marvelled at Dr. ~~##~~ Emma Willets delicate handling of infants' tissues as compared with the awkward thumbing with some football hands. ^{Some} ~~When~~ suggested that the Russians showed off only the best, it seemed reasonable to counter that we donot take visitors to our poorest establishments either.

As the classes increased, I could not help but wonder if we might not find ourselves with a surplus of doctors as is the case now both in the field of education and engineering. The lack of service ~~now~~ is due to a great extent to mal-distribution, doctors congregate in urban areas and around medical schools And are reluctant to respond to the needs in rural and slum areas. It is not unusual for a young doctor who attempts to start out alone in an urban area to find that he spends his first few years with very lean pickings.

The present move to have nurses or doctors assistants take over some of the work of the physician will also release more doctors for pressing needs, To add to this is population control which has already reduced the working load of obstetricians.

The team approach provides superior service in the management of complex problems. In the Child Development Center at Childrens Hospital in San Francisco, started in 1952, the physician headed a team consisting of a psychologist, speech therapist, social worker, physiotherapist, occupational therapist, nursery school teacher and secretarial help. Although this was pretty much a pioneer adventure, ^{20 years ago} the method has been developed, until now it is almost an integral part of every well run pediatric department in hospitals. It should be imitated by those working with adults in all specialties.

The Town and Gown problem, unfortunately, is still with us. When are we going to become mature enough to face each other with our questions and problems and discuss them as reasonable adults? It is only natural that physicians who have come up the academic pathway and stayed in education should not understand fully the problems of the practitioner, similarly the person in practice is not aware of the diverse responsibilities of the educator, but is there any valid reason why they cannot discuss these matters and increase understanding? Communicate!!

The Care of Crippled Children in the Little Jim Ward

By GEORGE MCCHESENEY, M. D.

THE Children's Hospital started over fifty years ago, and for that length of time has been taking care of crippled children. Its beginnings were, of course, modest, but after 1885 the work grew, due to the efforts of the late Harry M. Sherman, the first specialist on the Pacific Coast for the deformities of children.

In 1893 the hospital could not accommodate all who applied for Dr. Sherman's orthopedic services. Then it was that a reporter, waiting for a car at the corner of Maple and Sacramento streets, overheard a little lame boy talking to his mother. They had just been to the hospital, asking for admittance for the boy, but because of the lack of room the boy was not admitted. Mother and child were both crying. The reporter wrote the "Little Jim" story very pathetically and the result was the building of the "Little Jim Ward."

The Examiner started the fund for the building by giving the Christmas edition of the paper over to a large number of prominent women of San Francisco. Every department of the paper was in charge of a woman. The edition was sold out entirely and the sum of \$16,000 was earned. The building was open for occupancy in 1895 and has ever since been known as the Little Jim Building.

In its early years it was the only special ward in the city for crippled children, but later the two University hospitals and more recently the Shriners' Hospital share the work.

The character of the work done, also, has changed somewhat. Due to the efficient dairy inspection which is now carried on, the number of children infected with tuberculosis is less; in consequence there are fewer tubercular spines and hips seen among the crippled children. The general removal of tonsils in children is also a cause in lessening the number of tubercular cripples. Nevertheless, birth deformities, infantile paralysis, and automobile accidents, still furnish a good number, and the Children's Hospital has no trouble in finding thirty to forty crippled children to treat right along.

This is in addition to the Out Patient Department, where children are treated every working day for crippling deformities not requiring hospital care, or just able to be sent home and to report to the clinic for

the continuance of treatment and observation. The hospital reaches still further in its care of crippled children, for it reaches right into the home itself through the work of its visiting nurses.

In the Little Jim Ward itself the most important daily tasks are the surgical dressings. These are done with utmost surgical asepsis and care and as soon as possible in the morning, to render the rest of the day as near that of a normal child's as possible.

A child's natural inclination is either to play with toys or with games and exercise. Of the former, plenty are always at hand, almost too many, and for the latter a playground is provided in the out-of-door sun porch, where the very sick in their beds as well as the up-children congregate most of the day. It is close to the main ward, and on the same floor level, so that the feeble ones on crutches, and even those not allowed to walk, are able to paddle about, using their hands and lying flat on coasters or scooters, thus moving about unassisted and independent.

X Moreover, as a magazine, "The Crippled Child," published in Ohio, said recently, "Cure them if you can, but educate them you must," it has been the policy of the Hospital for over four years to do systematic teaching. Miss Wade, a regularly paid teacher of the San Francisco School Department, spends all of her time at the Hospital in regular school hours and gives lessons in the various grades to those of school age able to receive instruction. The regular school equipment is furnished by the Board of Education. This work is extremely important when a child has to be in the Hospital many months or even a year or two. The older children help the nurses with their work and thus learn to be useful when they return home.

No form of charity is nobler nor more appealing than that of caring for a sick child. To the helplessness of the sick is added the helplessness of the child, and thus the crippled child appeals to one's heart more than any other. Of late years there has been a nation-wide spreading of interest in the care of the crippled child and many forms of help are extended to them at the present time.

11 The surgery of the crippled received great attention during the late war, and many new ideas are being employed for the benefit of the crippled children that were used for the crippled soldier.

The readers of "The Nurses' Annual" can feel assured that everything that modern science and loving care can do for the crippled child is being done at the Children's Hospital.

A Rehabilitation Program That Really Works.

H.E. Thalandor M.D.

1922

Pub in Pointer

On a visit to my old home town this summer, I found there a model vocational training program. Little Falls, Minnesota is located on the Mississippi river at a site that gets its name from the dip in the river bed. It is a beautiful little town with a population of about 7,000.

The senior High School has a division called "A Vocational Development Program for Handicapped Students". It is a three year curriculum starting at the sophomore level and leading up to a graduation diploma. The Special Education section of the County and the State Department of Education have recognized the need for something other than purely academic training for students with learning problems and / or other handicaps that may interfere with normal progress in the regular classes. Stated in the words of its Manual the goal is: "To give the vocationally handicapped student a chance to become a wage earner through participation in a High School program; to be reasonably happy as an adult; and to be a contributing member of his community."

The program is designed to utilize the strengths rather than the weaknesses of the handicapped child. The staff consists of teacher-coordinators with competency in the following areas:

- 1) Business Education and interrelated cooperative techniques.
- 2) Home Economics.
- 3) Trade and Industry.
- 4) Agriculture.

The administration and faculty have enlisted the cooperation of the citizens of the community for trade related "On-The-Job" training.

The "Cluster Skill" areas are grouped as follows: 1) (Business and Clerical, 2) Farming and Forestry, 3) Service (Laundry, maid, etc.) 4) Health Occupations,

5) Food Service, 6) Transportation, 7) Mechanics, 8) Construction Trades, 9) Industrial Production (Factories), 10) Appliances and Repairs.

The first year (Sophomore) is spent in integrated training in the mornings and Vocational Development in the afternoons. The next two years continue the morning integrated training and or trade related sessions while the afternoons are spent with "On-The-Job" training.

The amount of material and the detail in which it was given was simply phenomenal! It covered subjects as follows: Effective speaking, listening, group discussion, appropriate language, introductions, interviews, telephone, directions, reading skills, reading and meaning, reading for pleasure, newspaper, effective writing, the human body, life cycle, good health, mental health, safety, first aid, disease, drug addiction, alcohol, hospitals, insurance, funerals, the family, child care, kitchen and food, you and your room, self-concept, your friendships, you and education, selecting clothes, mending, grooming, dating, party etiquette, basic math, making change, basic measurement, personal budget, figuring wages, taxes, social security, buying, interest, American History, citizenship, prejudice, voting, politics, laws and courts, transportation, conservation, leisure time, application blanks, you and your job, work record, references, what employers want, training, employment agencies, vacations.

Each of the above subjects are covered in detail. As an example under grooming the following details are given plus many more! ; definition, health and appearance, sleep, rest, posture, cleanliness, hair, hands, finger nails, feet, toenails, skin. Under funerals are listed what, why, when, where, what should you wear, where do you sit, selection of site, costs, markers.

On-The-Job-Training with the cooperation of the citizens in the Cluster Skills, provides for active participation. The students rotate through the different agencies and industries.

My enthusiasm is not based solely on impressive manuals or a tour of facilities.

My nephew as a result of meningitis in infancy, has dyslexia and minor neurological signs. I had not seen him for three years and the change was so marked that I felt obliged ~~not share my findings~~ to share my enthusiasm for the work with others. Jeff no longer stutters, he has poise, he is happy and confident and he has a job in the Senior Citizens home. He loves helping others.

8/27/71

Before this
Post in 52th anniversary

125-
1973 1973
A FAMILY LETTER.

Dear folks,

then
In 1973, ~~visited~~ *on a trip across the country, I visited many relatives and*
Some one ^{could} suggested that I write a family letter about ~~my recent trips~~
~~around USA~~ ^{it} so they all get some fresh information about the various relatives.

So here goes!

on this trip where I was made a life member of the Swedish National Society Auxiliary
On my recent trip to Philadelphia, I saw 47 relatives and said I counted relatives instead of sheep when trying to go to sleep; even so I missed 20 some where in the area. I am bringing up to date the Thelander pedigree and will send it on to you all when completed. Please correct mistakes and fill in omissions for me so I can correct my original one.

What took me to Phil.? Well I seem to be on several mailing lists for some kind of recognition these days and this one was an invitation from the Womens Auxiliary of the American Swedish Museum to accept an Honorary membership in their organization to be presented on Saturday May 5th. ¹⁹⁷³ Two of my medical friends have been similarly recognized, Dr. Evelyn Anderson and Dr. Judith Ahlem.. I had planned to swing through the East and then stop at Detroit, Columbus, Indiana, Minnesota and home, but the Amer. Pediatric Society announced that they were meeting here ^{in 74} the week of the 12th and there was a dinner on the 13th that I was invited to attend. This meant that I had to cut short my Eastern jaunt. I left here May first for a non-stop flight to Baltimore where Dot Hake met me and took me ^{Hake} to their new place in Laurel, Maryland. Probably most of you know that Dick was transferred to Washington D.C. about 2 months ago. The drive to their place and around the country side the next couple of days showed this section of USA to be in its very best spring array. The leaves were newly out, the dogwood was in bloom, the lawns were green and the flower beds in bloom. It was so different from the news reports of the awful megalopolis developing between New York and Washington. It still looked rural and charming. The Hake home is on one of these lovely greens with a brook behind it and the area filled with the songs of birds. No wonder Dick got a horse for Cathy and himself to ride over it.

Dot says she is not going to get as involved for a while as she was in Plainfield. ⁷⁶⁹ We will see how long she can remain free but at least it gave her a breather. Cathy was the only one of the five children at home. She is in High school and has as a hobby, oil painting. I just received in the mail one of her paintings, a picture of my house and I just love it. Steve is still in Taiwan but expects to be back in August. I hope he comes thru SF so I can see him. I enjoyed his over-night stop on his way out. Dick has visited him twice on his trips abroad and I have enjoyed his letters. Marjorie was in college and Connie and Ginny are still in New Jersey. Dick is great at helping the youngsters in their hobbies; he was busy, when not out riding, preparing some Ecology kits for Connie. I enjoyed a lunch with Dot and Mrs. Robertson, friends that Dick and Dot stayed with while readying their own home. We also stopped for a few minutes at Don Kulls, to see the former Hildur Henderson.

Then Kathy Bigalke is located in Washington DC and we had lunch at her charming apartment. She has a beautiful view and a most tastefully decorated suite. She is also a good cook. She has recently been promoted to supervisor of her group. It was fun swapping information about our work. Dot and Kathy came to the luncheon at the museum and we toured it together. Dot had taken me to the airport the PM before as I was the guest of the Mann family in Philadelphia.

Mr. and Mrs. Mann met me at the airport and I stayed with them over night. They had a charming old New England house with a glass porch looking out on the lawn. In the morning they took me to the museum where we met up with Dot and Kathy who had motored in. I received my membership at the luncheon and reminisced a little about our early days in Minnesota. I hope you all will keep this museum in mind if you travel East. It is open 6 days a week to visitors and is very worth a visit. It has exhibits of famous Americans of Swedish descent including Glen Seaborgs family • Glen Seaborg is on the Board of directors. ~~His fame is in the atomic energy field.~~ Ericson, of Monitor fame, is there, and Jenny Lind, the famous singer. There are many others. Dag Hammerskild has given it his support and suggestions.

The ladies then took me to the early train for Newark and phoned John and Mary to meet me, which they did promptly. They have a lovely home at Fanwood, new Jersey not far from Plainfield. Mary has a real knack at decorating, their apartment is homey and comfortable, John no doubt has added to it and there is music and viewing. John has a long commute which makes for a very long day, but they both looked fine and happy. I wish Ross Perot would find that he needed John in Northern California!

On Sunday, They had invited Connie and her family over, they were visiting the senior

Zobels and Ginny Hake rounded out the list of guests. It was a delightful afternoon.

met for the first time their

~~The two little girls, Crista 3 yrs., and Gretchen 2, were delightful to meet for the first time.~~ Crista is dark and Gretchen blond and blue-eyed. Connie is busy with

her craft work, teaching and selling it. I don't know how she finds time to do it

with her two little ones but I admire her for it. Ginny is busy in the counseling

field; she has finished college and is happy in her work. On Monday morning I went

with Mary to her class for the handicapped and watched it for a couple of hours.

Her work is closely akin to mine and we swapped information. They have a large program that provides services for all ages. It was very interesting to see it all. At about eleven we took off for the airport to catch the plane to Detroit. We lunched while awaiting the arrival of the plane.

At Detroit I was met by Bettie Bettaso. I had not seen her for 8 or 9 years, but she looked her pretty self, ~~wide eyed and bushy tailed.~~ She had to go to work in the early evening but prepared dinner for her menfolk and me before she left. Bettie Jo also had an evening job and took off. This gave me a chance to get re-acquainted with the men folk. Jamie who was ~~a mere infant last time I was there or rather~~ about 18 months

Carl time I saw him

and even then scaling the walls- came home from school, gave me a big hug and took me on a sight-seeing tour of his menagerie, - snakes, lizards, turtles, snails and fish.

He is going to be a real scientist I am sure. I loved him on sight. Robert is in

high school more sedate than Jamie but charming. Then Bern got home and we had

our dinner followed by a good chat about Bern's work; he is now in the farm implements part of the Ford plant and is required to travel a good deal which he enjoys but said

he would like to have Betty with him. Maybe after the children get a little bigger

4 128

she will. Becky was in College and I missed seeing her. On Tuesday morning we went to the hospital in Ypsilanti to see Jennifer, Beverly and Patrick's new baby. As probably most of you know, Jennifer was born with a tumor in her abdomen. She was operated a few days after birth and the tumor removed- it was not a cancer, and she should be alright, although she had a rather stormy course and was in the hospital one month. This visit added two new members of the family to my acquaintance, Patrick and Jennifer. Pat is in the music field and we are fortunate to have this talent added to our "Gene" pool. Bettie had to register for her next course and so we dashed over to the Michigan U and accomplished this. By now Bev and Pat and the baby should be home and we drove back to their apartment on the campus. We had time for a cup of tea before taking off to catch the plane for Minneapolis.

In Minneapolis I was met by Bernice and George ^{Bergalke} and we had a leisurely drive to Little Falls. I staid with Amelia but we were not there much of the time as there were a lot of family to see in 3 days. They were all well and doing fine now but there has been considerable sickness since I was home last. Dick ^{Islander} had surgery for a ruptured appendix, Eric has had his gallbladder removed, Jeffrey has had an ulcer and John Gustafson almost severed his hand in an accident. His doctor did a marvelous repair job and he has complete function of the hand. It is wonderful to know that there are good doctors available to do such intricate work. Minnesota Medical School ^{my alma mater} enjoys a good reputation.

Mary Lou ^{Kalahar} entertained us at a sumptuous luncheon in her home and we had a good visit with Sonja and Alice. The Kalahars now use the whole house and have it beautifully furnished,- it is a very cozy home. Brian dropped by at Amelias later so I did get to see him but I missed Leanna and her spouse. Bernice had us over another afternoon and there I got to see Mrs. Weber and could bring her news of her daughter Mary, ^{Bergalke} and all of them were happy to know that John and Mary would be visiting them in July. Jeff dropped by to chat with me a few times. He is working hard at Pine Inn and is another tall handsome young man. Jim came home so I got a glimpse of him one evening and in addition, he and B took me to the plane. I also got a glimpse of George who

looked fine and was planning to go fishing with Jeff.

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We had a nice visit with Eric and Carrie at their country estate and as usual were fed sumptuously. Carrie is an excellent chauffer and did most, if not all, of the driving. Dick and Eva and the young ones came over, and then we spent another day with them on the old homestead. They have remodeled the dining room, putting in a big window looking out toward the north pasture. It is very attractive. I was sorry that I didn't have time to look for agates, or to get acquainted with Dianna's new colt or take a ride around the farm, but here is for more time next time!

Hugo and Sonja and some of the rest dropped by Thurs. evening at Amelias. This was my only glimpse of Hugo, Veryl, Gilbert and John. I talked to Cyri on the phone but did not get to see any of her family on this trip.

Edryce and Ray had a nice party for me on Friday evening with liquid refreshments at their home first and there I met Lyle's sister and her husband, Dr. and Mrs. DuBois, who had just been to Israel too, and Mrs. Norberg and her mother. Ray, Edie and I then had dinner at Pine Inn. I got a glimpse of Don but Tim was working. Bob and Louise and their two boys were not able to make it so I missed seeing them too. They all talked about the visit by Adolph and Susan and wished they had been able to stay longer. On Saturday morning B and Jim picked me up and we headed for Minneapolis. It was a great, if short, visit. The flight home was beautiful. The mountains were snow capped, the day very clear and even the pilot commented on the exceptional beauty of the day. Bettie Leonards met me in SF. The Kaufmanns had dinner for me on arrival and I was ready to start another round of activities with the members of the American Pediatric Society. (The Kaufmanns house-sat for me both this time and when I went to Israel.)

~~My trip to Israel will be covered another time, but I want to add to the above, the visit of Bernice and Jim in March and our trip to Long Beach.~~

omit

After a couple of aborted attempts, Bernice and Jim finally got here in March. They spent the first few days here in Seafirth. The time was too short to take any long trips, as to Yosemite or Tahoe, also I wanted to have something to bait them for another visit. We did see Muir Woods, the Golden Gate park, and its museum, the Recreation Center for the Handicapped on the Pacific Beach, Childrens Hospital and the Child Development Center and we had a drive around the Tiburon Peninsula.

We then headed south for Long Beach. Jim stayed with John at Jacks and John took him sight-seeing by plane. What else they did, Jim will have to tell you. The rest of us went sight-seeing on the Queen Mary which is an all day chore and enough exercise for a week. It is unbelievably big and almost impossible to visualize it sailing the seas. We also went to the historical Rancho. This was lots of fun. It is very well preserved with even the machinery used on the ranch as part of the relics.

We were royally entertained by Jacks and Petes. Jim and Pete spent most of their time with Pete's old cars. He has his back yard almost fully occupied with cars. I think it a wonderful hobby and am sure he will make it profitable too. Barbara and Larrie and Christen came over so we had a chance to see them too. Christen is quite a bit bigger than last year and maybe a little more reserved with strangers. I hope they come up and stay awhile this summer so we can get re-acquainted. ^{Thelander's} It was lot of fun to have them here. The Siamese twins happened to come over the same Sunday and they sure enjoyed her. Gen and Lyle came up too which was fun. Peter Jr. plays the bells with a church group and we went to a concert that they gave in the Lutheran church. I had never heard that type of performance before and enjoyed it thoroughly. I enjoyed my conversations with Joe as usual and Peggy played the perfect hostess. Thelma Sr., Jr. and Fran are super cooks and we indulged.

The time went by too fast. We never did get out to Toms nor did we see any of the members of that family. Better luck next time.

B and Jim decided to take the late flight to Minneapolis on Sunday night. By then I was so pooped that I went to bed and Hil and T took them down to the airport. I stayed until Monday then flew home to get ready for the Philadelphia trip.

Now it is every ones turn to come here. I am just going to sit here and wait for you. Start a nest egg for traveling immediately and come one, come all, starting as soon as you can.

Lots of love,

Jo Thelander

5/30/73.

2

- 50 years celebration in family.

visits in 1975 - John & Mary - Gustafson,

Jeff Kennel - Leann & Ron, Gustafson, Gen Bonnie

Petes, Cuthberts, and to

They did come up later put the above in parenthesis or start it & add at the end

HUMAN DESIGN

H.E. Thelander M.D.*

1966
revised 1970

Almost every Pediatric Journal has at least one article on a "Syndrome" not previously described. With what model are we comparing these syndromes? What is normal or what is our ideal? The early Egyptians stylized the human form. The Greeks and the Romans, more particularly the Greeks, idealized the body in art, especially in their sculpture. Horticulturists have modified plants; in animal husbandry, by cross and inbreeding, domesticated animals have been altered both in form and function. County Fairs are held in almost every community and prizes given for beauty and performance. There was a time when baby shows were held and awards presented. Pediatricians discouraged this practice. Queens are still chosen in popular beauty contests. These also may be on the way out as recent ones were picketed.

Observations on handicapped children raised many questions and some speculations. The children who came to the Child Development Center varied appreciably in basic design. The child with normal foetal development who then was exposed at the time of delivery to hypoxia or to trauma presented a picture that differed from that of the child who had been subjected to an unfavorable intra-uterine environment such as thalidamide ingestion by the mother or German Measles during the first trimester. Both children may be handicapped. The former, however, may be well designed but performance may be seriously affected. As an example, a severe athetoid paraplegic child may have strong motivation, he may have a keen sense of humor, he may show persistence and have a normal or even a superior intelligence but his physical performance shows lack of control. A child of poor basic design with even less physical incapacity may function at a much lower level.

Human
Design

It was observed also, and reported in 1958,¹ that children who suffered lesser degrees of injury or hypoxia at birth presented a characteristic picture which has become known as "Minimal Brain Damage" or Neurologically Handicapped". The behavior of these youngsters suggests that the finishing touches of development failed to occur. This may be the correct concept. If the last attained skills in the phylogenetic pattern are the first to be lost, then injury to the organism at the end of the foetal period or during the rapid growth period of early infancy could result in deficits in the higher human skills such as communication, language development, judgement and discrimination.

If Homo Sapiens represents the highest development in the animal kingdom, it is pertinent to raise the question: What type of individual represents the greatest refinement in human development? Are there stigmata that may be indicators of a hereditary potential toward defective development in a future offspring? It is difficult to follow individuals for a long enough period to determine outcome. Two children in my office practice are particularly remembered who had bilateral simian lines; one of these graduated with honors from High School and the other attended an exclusive boys school. Are these stigmata significant for the future families of these individuals?

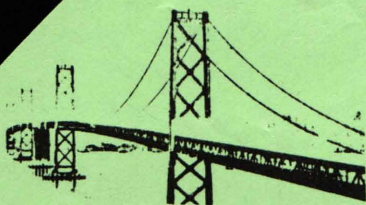
In 1874 and 1875 three great men were born who were to live to be ninety years of age; they were Sir Winston Churchill, Herbert Hoover and Albert Schweitzer. They were wise intelligent humanitarians and they lived well beyond the average life span. They were well designed human beings.

In contrast the children with defects were prone to illness and the death rate was high. The incidence of mental retardation was very high.

The ideal of human development should be an individual with good body form, free of stigmata; he should be intelligent and well adjusted psychologically and socially.

1) Thelander H.E. et al. J. of Ped. Vol. 53. No. 4. pp 405-409. Oct. 1958.

* From the Child Development Center Childrens Hospital San Francisco, Cal.



THIS IS MY CITY

District #14 -- "Inner Sunset," with boundaries of Lincoln Way, Stanyan, 17th St., Twin Peaks Blvd., Portola Drive, Sloat Blvd. and 19th Ave., will be studied next. District Director Lucile Fendel is assisted by a committee of district residents consisting of Rose Fenton, William Garren, Charlotte Kannel, Marian MacIntyre and Kay Murphy. Mel Zora, of the main committee, will also assist.

Tuesday, September 28. The morning meeting at the Center will include history and slides by four committee members and a talk about the history and makeup of Laguna Honda Hospital by an active volunteer of that institution. For lunch, participants may choose one of four ethnic restaurants on West Portal Ave. The afternoon includes a stop at the local library to see a model of the tunnel remodeling project, a conducted tour of the Youth Guidance Center and an auto caravan trip around Twin Peaks.

Tuesday, October 12. A full day for the study of the University of California Medical Center. A special speaker will tell our group about the past and the present of the U.C. medical facility. We will have lunch at the Medical Center and in the afternoon will be given a tour of interesting places not usually open to the public, such as the Pathology Museum, the Hooper Foundation and others.

Tuesday, October 26. The morning will provide a tour and history of the J. D. Randall Junior Museum with a lecture/demonstration afterwards. Members will bring brown bag lunches to Stern Grove Clubhouse, after which a speaker will give the absorbing story of Stern Grove from its beginning.

Note: Exact times and details were announced at Friday meetings on September 10th and 17th. Programs for each day may be obtained at D.R.'s office.

-- Lucile Fendel, Project Director

TRIP TO TIBURON

It was a panorama of paintings by Monet, a full circle of views of San Francisco Bay, the City, Marin, East Bay, and the nearby hills of Tiburon. We stood on the top of one hill, some thirty of us on a CLIR hike on August 16, turning in all directions to enjoy the green hills, limpid blue water, bright houses among the trees, tawny fields, country-blue sky with just enough soft clouds to keep the weather cool for hiking.

After the walk, we were invited to Dr. Jo Thelander's home on the beach where we had lunch, a tour of the house, a swim, and a viewing of two art shows specially exhibited for us.

Dr. Thelander's house is an art exhibit in itself. It is a house of originals. Every room has its share of unique and interesting objects--a cement dinosaur footprint, clay, metal, and wood objects, mobiles, pictures, books. The walls of the garage are covered with Dr. Jo's own art work, wood and rope originals, much of it "found" art. Outdoors also boasts a genuine playhouse and a Tom Sawyer fence kept for her young friends. Dr. Jo says she is a kept woman--kept supplied with gifts of taste and variety by her many friends, former co-workers and patients. One room contains photographs of her associates; another has a wall covered with awards and honors in recognition of her many years as a loved pediatrician.

As we left Tiburon, the Bay had changed from subtle greens to a soft but definite blue. Monet would have gone wild trying to capture the play of light on the water. But each fortunate CLIR hiker and guest of Dr. Thelander could carry home a first-hand impression of this incomparable picture.

-- Rachael Perkins

PREVIEWS continued

TOUR -- Tuesday, October 5

The Oakland Museum and exhibit of California Gold Rush Period paintings by artist C. C. Nahl. Gather at 10:00 a.m. sharp at the Bart Powell Street Station. A docent of the Museum will meet us at 11:00. Brown bag or Snack Bar lunch. Afternoon for further museum viewings. Return via Bart from Lake Merritt Station. --Charlotte Kannel, Leader

General Meeting

October 1, 1:30 p.m. Announcement of slate of nominees for election of officers in November.

Viewpoints

October 8, 1:30 p.m. Report of Ashland trip.

October 15, 1:30 p.m. "Jade, the Stone of Heaven," a slide talk by Jane Pettit, art historian.

Voice Open Meeting

Monday, October 18, 9:45 a.m. See VOICE NOTES this issue.

OPEN WIDE

OPEN WIDE was the smart title of the lecture by James Millsop, D.D.S., at Viewpoints on August 13; it also describes the warm response of the audience to this charismatic speaker. He made the recommended ways to perform prosaic processes sound scientific and even appealing.

Tooth brushing--angle the brush, wiggle the bristles, twist outward to finish the stroke. Care of dental appliances--don't sleep with your dentures. Dentrifices--baking soda is good. Prevention of dental cavities in children--fluoridation of public water supplies is sound public policy. He explained the newest techniques, complicated methods and controversial discoveries. Sincerity and concern for people illuminated the complexities as well as the simplicities. He often cited research and his own professional experiences to support his statements, many of which were elicited by questions from the audience.

Three strong points applicable to health generally--not only to dental health--were added to the values Dr. Millsop brought us: prevention pays off; learn to judge fads and advertising appeals; good health and well being often depend on one's own choices and actions.

Ruth Somers introduced Dr. Millsop. After the extended session and long applause had to be terminated by the chairman, Ruth added, "And he sings too!"

-- Lucile Leone

Voice Notes

NOVEMBER ISSUE PUBLICATION DATE: Friday, October 22. Because of a Regents' meeting at the Center, CLIR will not have a Viewpoints meeting on October 22. If you are at the Center that Friday or early the following week, please pick up your VOICE at the CLIR office. November issue deadline: October 8.

VOICE OPEN MEETING: Monday, October 18, 9:45 a.m. This will be similar to the "planning meetings" held in January and February. The present staff has put out the VOICE since that time and now we need feedback from the membership as to how well we are meeting your needs. What constructive suggestions do you have? What should we leave out? What ought we to add-- bearing in mind the space limitations? Please come.

-- Helen Svirsky

REDWOODS AND OTHER TREASURES

A walk in Oakland's Redwood Regional Park was a happy and rewarding experience for CLIR's Hiking Group on a warm, sunshiny day in July.

"Redwood" is but one of many parklands administered by the East Bay Regional Park District. It has steep slopes, deep ravines, and, in years of more abundant rainfall, a lovely little stream winding down the canyon floor. At one time these slopes were covered with ancient redwoods, some so lofty they were used as navigational aids by ships entering the Golden Gate. But the burgeoning populations of Bay cities demanded shelter, and those convenient forests were cleared--until only stumps remained. All the redwoods now in the Park are second growth, standing in the familiar cluster surrounding the stump of a fallen parent, their rich dark green foliage fringed with pale new growth. Here and there a few madrones--bare red limbs and irregular forms contrasting sharply with the redwood spires. Elms. And laurel. Ferns and chaparral in the underbrush. Clumps of poison oak and poison hemlock.

We walked and talked along a crooked trail beside the parched creek bed, crossed rustic bridges, watched children practicing archery and others studying Indian lore. Horseback riders shared our trail, and hikers appeared and disappeared. At noon we sat around the scarred old picnic tables eating lunch--with a little wine, a lot of conversation, and very good vibes.

Then, as though the Park were not enough for one day, we were invited by George and Sally Kreps to stop by their home in Oakland. A treasure house! Charming objects of their own creation combined with fine old furniture lovingly restored, with collections, and with heirlooms. Delightful.

George and Sally, members of the Walks Committee, planned it all. Thanks to them for a beautiful day.

-- Olga McIntosh

MEMO

FROM: D. R. Smith, CLIR Administrator

TO: CLIR Members

As your official "rumor-spiker," I wish to spike a rumor concerning me and the job of Administrator.

It is not true that I am immediately resigning from the job of Administrator without replacement.

It is true that I have asked to be relieved from the position as soon as a qualified replacement can be found and trained. I will not vacate the position until such a person is capable of taking over in my stead.

This is not a political, managerial or capricious act on my part. It is simply enlightened self interest--I want and need more time to develop personal and artistic interests.

A search committee is being formed to locate a CLIR member who will be a replacement. The committee will need the help and encouragement of everyone, so please help by giving its members your best ideas and suggestions.

Copies of the literary magazine of the Institute of Retired Professionals in NYC are available on request in the CLIR office.

PROFILE

HULDA THELANDER, M.D. - Compassionate Detachment



Her small face, etched with the experiences of a full, useful life, remains in repose; her manner reflects the calm detachment of the scientist. In spite of such outer serenity, it is obvious that Dr. Thelander is "involved," brings enthusiasm, concern and dedication to every task.

Her parents came from Sweden to Minneapolis around 1890, and moved into the sparsely settled countryside that yielded a living only grudgingly. Seven of nine children (Hulda, nicknamed "Jo" is the fourth) were born on the farm. Her father organized the Lutheran church and a country school. Jo walked to the latter, two miles each way.

"I loved - and still love - school, and once I started nobody could make me stay home. My brother and I were in the first class that graduated from that school six years later. I was the first from our community to go on to high school in Little Falls, Minnesota. If there were any economic hardships, we did not know it. We ate well, cattle were on the farm and chickens laid eggs. We churned butter, baked bread, killed animals for meat, picked berries and made jam. It was a very self-sufficient life."

Graduation from high school qualified Jo to teach at a local school. She aimed higher. She studied nursing, but this did not satisfy her hunger for learning. "Then I read in a church paper about a scholarship in medicine for a woman willing to go to India. I got it and went to medical school at the University of Minnesota. People often remark that it must have been hard for a woman to get into medical school. I never felt any prejudice." Of course this was immediately after the First World War, and wars always act as yeast for social change. Jo graduated at the head of her class and was elected to two honor societies.

"When I had finished my internship at Children's Hospital in San Francisco, it was not possible to go to India and I went to China instead; first to Nanking, then to the Language School in Peking. I also conducted a clinic at the Rockefeller Institute." In the spring of 1927 war began in China, and all Americans were ordered home. Since no boats were available for Peking, Jo and her fellow Americans went by train from Tientsin to Korea and managed to get on a boat in Japan. They made the trip in steerage, a less than joyous end to the stay in China which Jo had loved. Her career in the States was assured before her return. She had received a cable from Dr. Shaw of San Francisco, offering her a position.

"First I went home to see my family. Then I joined Dr. Shaw in the private practice of pediatrics. It was a chance decision, but it lasted from about 1928 to 1967. During ten of these years I was Chief of the Department of Pediatrics at Children's Hospital. I enlisted in the Navy in World War II, was assigned to the Marines in San Francisco and came out as Commander. In 1952 I started a Child Development Center for handicapped children at Children's Hospital and eventually worked there almost full time!

"After my retirement in 1967 I had a strong desire to return to medical school, to review embryology, genetics, obstetrics, etc., to seek the causes of mental and physical abnormalities and see what could be done to prevent them. I spent the first two years in medical school classes, then visited hospitals and day care centers to see what the students were doing. I kept a diary which I shared with the administration, as the curriculum was being revised. Then I reviewed the literature on birth defects and published my findings." Jo has published over 100 articles.

"I was surprised and pleased to receive an honorary LL.D. from U.C. San Francisco. My vacations were spent traveling, 13 trips, touching all continents and attending medical meetings."

In 1958 with the help of a woman architect, Dr. Thelander, who is one of our charter members, built her beautiful house in Tiburon, where she has repeatedly entertained the members of CLIR. She has retired from active practice only, not from her lifelong major interest -- health education. "I think we are deficient in health education. Our teachers and parents should have it and children should get it in school. I love children and always had good rapport with them."

She has never married. A life so filled with caring for others, a spirit in such ardent and continuous search for knowledge, immersed in helping, is married to the world.

-- Else Karler

Duplicate
Interference with Organogenesis and Fetal Development. A Summary.

H.E. Thelander, M.D.

In 1971 to 1972 I reviewed the literature on Birth Defects. The findings are published under the above title in "Texas Reports on Biology and Medicine." Vol. 31. No. 4. Winter 1973. PP. 791-861..

The factors studied were, - Genetics, parental age, consanguinity, nutrition, infections, drugs and toxins, radiation, multiple births, intrauterine accidents, severe maternal injuries or accidents in early pregnancy. Injuries to a normal fetus during delivery were not included in this part of the study.

The question that arose most often, curiously, was "What protects the Fetus" rather than what might injure it. The fetus seemed to be remarkably well protected. Why does not the body reject this foreign body as it does a transplant? Why, even in conditions like German Measles and the ingestion of Thalidamide, did 20% of the mothers under the same conditions deliver normal babies? I was forced to the conclusion that Genetics plays the major role in the outcome of a pregnancy. The human species has thousands of Genes and every individual must have a certain number of defective ones. Which ones are defective, how many are abnormal, Where in the chain are they located? - all these factors must determine the effect on the embryo when certain agents in the environment are encountered.

The age of the mother as a factor in the birth of a child with Downs Syndrome is well known. The literature also states that the very young mother is also more apt to produce an abnormal child. In my survey I did not find this to be so. A possible factor is the earlier onset of the menstrual cycle, usually between 10 and 13 years. If a girl matures reproductively this early, she has had 4 or 5 years of development by the age of 15 or 16 years. The Chief of the Teen-age Pregnancy Department, stated, "However she is not emotionally mature for motherhood". We certainly can accept that fact.

The literature also noted that defective sperm may ~~also~~ play a role in birth defects aside from their role in heredity. This subject has been explored more in European cultures than in USA . The role of the Male has also been studied in animal husbandry where it has been definitely shown that defective sperm may cause anomalies in the fetus. In the American literature a study of harelip and cleft palate showed a correlation with the age of the Father just as mongolism did with the age of the mother.

The discovery that German Measles suffered by the mother in her early months of pregnancy could cause birth defects , placed every disease under suspicion. Careful studies, however, have found very few infections that are harmful. Among those that are so, may be named, Toxoplasmosis. Cytomegalic Inclusion Disease, Syphilis and possibly a few others.

Similarly, the Thalidomide episode put every drug under suspicion (and rightly so) but again careful investigation has found very few drugs that cannot be handled by the embryo and fetus without dire consequences. Physicians should know the facts in order to reassure mothers, When the News Media comes out with headlines of the dangers to the fetus of every thing from alcohol, cigarettes, caffeine and aspirin,

A young mother who had a cocktail at a party, before she knew she was pregnant may worry for 9 months that the resulting offspring be defective. Pregnant mothers worry enough about the outcome of a pregnancy without having these possibilities constantly in front of her. Most drugs are tolerated by the fetus; some ^{drugs} never get by the placental barrier and others, unless given just before delivery are handled by the fetus as by the mother. In addition to Thalidomide, Aminopterin has been shown to produce severe anomalies. Excessive use of many toxic agents, such as alcohol, nicotine, opiates etc, means there is something else wrong with the person who becomes an addict. Such individuals cannot be expected to bear normal offspring.

Poor nutrition as a possible cause of defects, especially mental retardation, has been another scare feature in the press. Again, such a condition as Kwashiakar

can not be used as an argument that every additive to a modern diet is a potential hazard. The best studies on starvation , were made in Holland after WW II with a follow-up 18 to 20 years later on military recruits. This was a most careful survey with histories going back to the individuals infant life. There was no evidence found that nutrition per se caused mental retardation . The early embryo is very minute during its period of organization. It needs water, oxygen, and sugar which it takes from the mothers tissues.

Radiation is much in the news these days. X ray to the pelvis in the early pregnancy certainly should be avoided. There was no evidence available indicating that diagnostic X ray to other parts of the body posed any danger. Extensive studies have been made , and followup studies are still in progress on the effects of the bombings of Japan during WW II. The early studies found no abnormalities of infants born to mothers who were far enough away from the centers to suffer no injuries themselves. Those mothers who had visual evidence of Radiation injury either lost the pregnancy or in some instances had abnormal children. As we know there is evidence that Leukemia may result years later.

Consanguinity increases the possibility of birth defects. This is well documented. Hemophilia among Royalty is only one example. It is reported that certain tribes living in close proximity for centuries have an increase in abnormalities probably explainable on unknown familial intermarriages.

Multiple births increases somewhat the incidence of defective infants, though this cannot be very great. In our Center we did have a number of instances of one of twins being abnormal,- but we also had 2 sets of triplets that were normal. Intruterine accidents may be somewhat more frequent with more than one fetus but accidents occurs at times even with one infant. This happens usually with an abnormally long cord. The original article has a picture of a fetus strangulated by his cord. There may be other accidents due to abnormal placentae or cords. During my Junior year in medicine Dr. Adair and I made a study of this and it

published under the title , " A Study of the Weight and Dimensions of the Human Placenta in its Relation to the Weight of the Newborn Infant."

American Journal of Obstetrics and Gynecology.. Vol.. X . No. 2. August 1925 pp3-35.

Severe maternal injury during pregnancy may either cause an abortion or if early in pregnancy, may injure the fetus. In our series one mother was in a severe automobile accident with some fatalities and another mother fell down a flight of stairs. Probably threatened abortions should be allowed to take their course as many aborted fetuses are abnormal.

In conclusion, may I add that our Siamese twin girls, successfully separated, are now ready for college and according to the father their grades are such that they should have no trouble being admitted..

SLEEP.

H.E. Thelander, M.D.

The number of hours per day that adult individuals sleep probably falls into a normal distribution curve,- some requiring as little as three or four hours, the average being eight or nine hours and then tapering off down to a few sleepy heads. Individuals also vary in the time of day they prefer to go to bed and wake up. There are early birds and night hawks. The former get up at the break of dawn, or before, are strangers to alarm clocks; work eagerly in the mornings and peter out about the time of the afternoon coffee break. They then laze through the evening and get to bed early. The night hawks, after burning the mid night oil, set the alarm and go to sleep. When that alarm goes off there is a sleepy reach out to turn the D-- thing off. Some one may need to be around lest sleep take over again.

Sleep also varies with age,- from long hours in infancy, a gradual decrease extending into old age. (Who knows better!).

In a world set with time schedules, work hours, school sessions, etc, what effect has this on humans normal rhythmic sleep variations? The " Medical Times" June issue 1979, is devoted to sleep disorders. It lists 36 " Sleep Disorder Centers" in U S A,- 4 being in California, one at Stanford. it states further that there are others not listed. Pathological conditions such as Narcolepsy and Sleep Apnea are discussed, but considerable space is also concerned with conditions such as night mares, sleep walking, dreams, head bumping, rocking and insomnia. As pediatricians we are familiar with sleep problems of infancy and childhood. It isn't the alarm clock as much as the telephone that we call by unmentionable names. Do infants suffer from insomnia? When a couple of mothers (who have young adult insomniacs) were asked about their infancy, The reply was, "Awful cry babies, they never slept!" Hence, ito

the differential diagnosis of colic, hunger, wetness, cold and so on, should be added " Is he/she an insomniac?"

What about the Insomniacs who are happily adjusted to their rhythmic sleeping cycles? They have a bonus of 3 or 4 hours in the still of the night during which time they can pursue their interests and find new ones. They can prepare their speeches, plan their papers, solve problems and create or come up with new ideas, or just meditate. Hopefully, they may also serve as models for the maladjusted clients of the Sleep Disorder Centers..

Put with
Article on
Stimulation &
Brain growth

4/8/75.

Mr. Solomon L. Manocha
Chairman,
Division of Experimental Nutrition,
Emory University,
Atlanta, Georgia. 30322.

Dear Dr. Manocha,

In my study of handicapped children, I found that most children with a history of embryonic, fetal or perinatal injury, showed some degree of mental retardation or had learning problems. There were a few very striking exceptions and these are the ones that have intrigued me and I have wondered if some studies of apes might be enlightening.

When reviewing the literature on birth defects, I found this statement by Klossowski in a small volume entitled "Blood Circulation in the Brain":-
"The Metabolic products of these cells and the waste products from their disintegration (namely their nuclei) are powerful stimulants which trigger the vigorous and massive new growth of vessels from the pial membrane into the primary cerebral vesicle, as observed by us during the second half of pregnancy". It then occurred to me that possibly the increase of blood flow to the brain at the period of rapid growth might in certain cases be a stimulant to super development. I was particularly interested in cases of severe hypoxia. I shall cite briefly two cases that I followed from infancy.

A girl now in her twenties, was the child of a first pregnancy. The mother had been admitted to the Hospital in labor and was given a spinal anaesthesia. When turned on her back for delivery, she went into severe shock, her blood pressure dropped, her pulse was barely perceptible and the obstetrician feared she would die. She was turned to her side, given resuscitation and stimulants. She revived and delivered a little girl weighing 8 lbs and 12 ounces. The infant was quiet and limp but on stimulation cried. There were no developmental abnormalities. She fed poorly in the nursery and remained atonic and very quiet. She was dismissed with her mother and thereafter followed at home and in the office. It was noted that at ten months she showed fear of strangers, a normal reaction for that age. It was apparent also that she was athetoid. At two years of age she became the first pupil in our newly organized school for Cerebral Palsy. She did not walk until 6 years of age and is still very athetoid with marked distortion of her face when speaking. In spite of these difficulties she graduated from High School with honors and is now in College studying sciences with the hope of doing research on the brain. She drives a car and flies a glider. She has been to Europe alone 4 times- all of which seems absolutely incredible to me. I had to cut up her meat for her when she dined with me and she used a straw to take her liquids.

The other child is a boy now 12 years of age who has very much the same symptoms but more severe. He is a quadriplegic with mixed athetosis and rigidity. He has no speech, marked contortions of the face, cannot move at all. He also reacted by crying when strangers approached at the age of nine months. His mother insisted early that he was very bright. He has been tested in a number of sessions by Dr. Morrison Gardner of the Child Development Center. Dr. Gardner has had many years of experience testing the handicapped and felt challenged to try to determine the IQ of this child. He reorganized the tests into multiple choice questions and numbered large blocks up to 5. The boy was then allowed to read the questions and with a movement of his arm touch the appropriate block. The mother was not in the room and the child was held by an attendant of the Center. He was given an IQ of 140 which Dr. Gardner said he thought was a conservative estimate. This boy was a twin; the other twin died in-utero. The mother bled at 5 months gestation but did not deliver until past 7 months. The proband was described as barely viable when delivered.

It has seemed to me that a study of hypoxia in apes might give us some clues to this type of condition. I don't believe that these children were geniuses who happened to get hurt and I don't know what kind of IQs you do on monkeys, but if you have any opinions, I would be interested.

Sincerely,

Hulda E. Thelander, M.D.

YERKES REGIONAL PRIMATE RESEARCH CENTER
EMORY UNIVERSITY
ATLANTA, GEORGIA 30322

April 1, 1975

Dr. Hulda E. Thelander
40 Seafirth Place
Tiburon, California 94920

Dear Dr. Thelander:

I am most grateful for your letter of March 28, 1975, in which you have made some very constructive comments about the brain development. I do not believe that a marginal deficit in cell number can have a profound effect on mental development. My emphasis is on the study of the changes in the pattern of several enzymes and, above all, the development of the neurons with their dendritic and synaptic arborizations. The answer may lie in the impaired circuitry of the neurons.

Please do write me your views about brain development. It will be my pleasure to give serious consideration to putting them to experimental procedures. In the meantime, please accept my thanks for your comments.

Sincerely yours,



Sohan L. Manocha
Chairman,
Division of Experimental Nutrition

SLM/pp

A recent visit to the Galapagos Islands, aroused anew interest and speculation regarding certain possibilities in evolution. For some time I have been intrigued with the question, - " why is the life span of the female of the human species longer than that of the male?" The chromosome theory is not very convincing. Lets look at some natural factors in the species . . Historically the male has been the protector, - of the family, of the tribe and of the Nation. The physically fit have had to assume this role. They are the ones who have been most frequently exposed to dangers. The mortality in Wars have been high. On a visit to the Soviet Union shortly after WWII, a comment about the large number of women working in the fields brought this reply, - "So many of our young men were lost in the war, we have to do the work."

The history of the hazards to women has been different. Before the days of sanitation, immunization anti-biotics and birth control, maternal mortality was high, even 50 years ago, there were a half a dozen orphanages in the Bay area. Only the hardiest women survived.

If wars cease and reproduction is controlled and made less hazardous, will the life spans of males and females equalize??

H.E. Thelander, M.D.

11/19/78 - 12/8/78

More about Swedes from Minnesota;- notes from the Family Tree.

Two Swedes came to a farm in Minnesota in 1888 and reared 9 children, 6 boys and 3 girls. In 1978 there are 133 descendants, 69 males and 64 females. Father died at age 63, mother at age 68 years. There are 4 of the first generation alive at ages 87, 83, 77 and 75 years. Death of 4 others occurred at ages 79, 77, 76 and 75 years; one in an accident at 37 years and the only smoker of a heart attack at age 64 years.

In the American melting pot, these Swedish genes are now mixed with English, Irish, Scotch, Norwegian, Dutch, German, French, Italian, Polish, Czechoslovakian and even a touch of American Indian dating back to early New Englanders.

H.E. Thelander, M.D.

1977



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
WASHINGTON, D.C. 20201

OFFICE OF THE SECRETARY

November 7, 1968

Dear Doctor:

I am taking this opportunity to bring to your attention, and invite your comments on, the Second Interim Report of the Secretary's Task Force on Prescription Drugs which was made public on September 12, 1968. The report deals with a subject of major importance to the public and of deep concern to the medical profession. For this reason, I am presenting for your information and consideration a number of the Task Force's recommendations.

The Secretary of Health, Education, and Welfare, established the Task Force in May of 1967 to examine the possibility of including the cost of out-of-hospital prescription drugs as a Medicare benefit. The Secretary recognized, as did many others, that the cost of drugs often is a very heavy and disproportionate burden on the limited financial resources of the elderly, and he directed the Task Force to assess the implications of using the Medicare system to ease this burden.

The Task Force has submitted two interim reports to the Secretary dealing with the results of major aspects of its investigations, principally those concerned with the manufacture, quality, distribution, promotion, pricing, prescribing, and use of drugs.

Although all of the findings and recommendations submitted thus far warrant your consideration, those which deal most directly with prescribing should be of particular interest to physicians.

Undergraduate Teaching of Pharmacology

The Task Force concluded that a single pre-clinical course in pharmacology, which is often the full extent of a medical student's formal training in this area, does not provide enough of the clinically oriented information that the practicing physician needs in order to make the most effective use of drugs.

Some schools, in recent years, have introduced a second or third course, emphasizing clinical considerations in drug therapy. The Task Force has recommended that Federal support should be provided to enable all schools of medicine to include a clinical pharmacology course as an integral part of the curriculum.

A Journal of Prescribing

As you know, most of the drug information used by physicians comes from the advertising and promotional activities of drug manufacturers. The Task Force has seriously questioned whether these sources provide or should be expected to provide the objective and comparative information needed by prescribers. We believe that an independent group of well qualified clinicians and pharmacologists could provide objective evaluations of new drugs and reassessments of older ones through a regularly published journal of prescribing. The Task Force has recommended that such a publication be made available on a regular basis to all physicians, and it has recommended Federal support for this activity.

Drug Reference Sources

Physicians turn to a number of reference sources to obtain prescribing data. The most commonly used source, as you know, is a compilation of the most widely prescribed drugs published with the support of the pharmaceutical industry. None of the existing compendia, however, provides information about all available drugs. The Task Force has recommended, therefore, that the Department of Health, Education, and Welfare be authorized to distribute to all physicians without charge, a regularly updated compendium, listing and

describing all prescription drugs together with an indication of relative costs. We believe that such a volume can be produced in a convenient format, very close to the size of existing compendia.

Postgraduate Education

A number of forward looking local and county medical societies are providing opportunities for their members to renew and expand their training in various aspects of medical care. With regard to drug therapy, the Task Force has recommended that these societies, in cooperation with medical schools, hospitals, foundations, and others, take the initiative in providing regularly scheduled postgraduate seminars to enable physicians to review current developments in drug therapy. The Task Force has recommended that Federal funds be made available for this purpose.

As Chairman of the Task Force, and as a recent practitioner, I believe that the implementation of these recommendations will serve to improve the quality of care, which is the ultimate aim of both the profession and this Department.

We would be pleased to provide you with copies of the interim reports already published, and we would be grateful for your thoughts about this important subject.

Sincerely yours,

Philip R. Lee

Philip R. Lee, M.D.

Assistant Secretary for

Health and Scientific Affairs

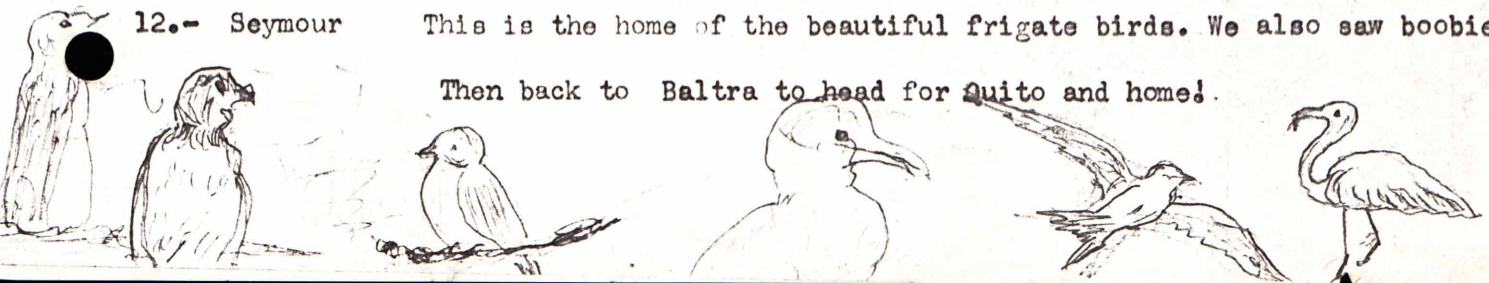
I would appreciate a copy of the interim reports by the task force.

It seems I have been concerned about the drugs business for many years. I think drug research should be done in medical centers and the use of drugs taught there. The pharmaceutical personnel should be under the same code of ethics as physicians & nurses. -

*Drug advertising
be no advertising of drugs.
always means such as cigarette advertising*

THE ISLANDS VISITED .

- 1.- BALTRA,- has an Air strip put up by USA during WW II. The Island is rather barren, but has Cacti, Palo Santo trees, grasses and vines. It still has a small Air Port.
- 2.- PLAZA,- has a red succulent plant and many Cacti. It also has many land Iguanas, Sea lions with their young and numerous red crabs that scramble over the lava.
- 3.- Barrington,- has a cone 800 feet high. There is rough lava flow and a variety of cacti. There are brown pelicans, warblers, finches, herons, mocking birds, and frigate birds. There even were owls, hawks and doves. Along the shore were sea lions and marine Iguanas.
- 4.- Hood,- seen here were bright colored, red and orange Iguanas, lizards, tortoises, crabs and many birds;- blue footed boobies, mocking birds, herons and the albatross.
- 5.- Floreana,- has more than 50 cones within an area of 80 square miles. The highest is 2,100 feet. There is considerable vegetation on the island. Several sea lion colonies were seen and it also has a feral population of cattle, pigs, donkeys, dogs, cats and mice.
- 6.- Santa Cruz,- This is the second most populated island. It has a rich flora. Part of the island is under cultivation. There is a wild life reserve. Both the Academy Bay and the Charles Darwin Station are located here. It is the only place where purchases may be made. The island also has a great variety of animals and birds. There are sea lions, iguanas, turtles, even many feral animals.
- 7.- Isabela,- Several stops were made on this island. It is the largest of the islands, stretching some 70 miles. There are 6 volcanoes on it, 5 of which are considered active. There are more than 2,500 small cones. At least 14 eruptions have taken place since 1911, and 5 since 1934. There are many white beaches on this and other islands due to the erosion of shells and coral washed up.
- 8.- Fernandina,- On this island and Isabela (next to it) we saw pelicans, flightless cormorants and numerous other smaller birds. This island had the most impressive volcanoes. The caldera is a steep-walled pit more than 3,000 feet deep and between 3 and 4 miles across. Activity occurred as late as 1968.
- 9.- James,- My favorite! It has a cone 2,974 feet high and a cluster of smaller cones. Some eruptions occurred in the latter part of last century. The lava looks fresh and is furred making it very beautiful. On it are many fur seals and many flamingoes and much, much more.
- 10.- Jervis,- This is a small beautiful island and on it we again saw Flamingoes.
- 11.- Bartholome,- Another small scenic island. On the way we passed Daphne island.
- 12.- Seymour This is the home of the beautiful frigate birds. We also saw boobies
Then back to Baltra to head for Quito and home!



Letter to the Editor. Comments on "The Boundaries of Health Care".

Like Dr. Haggerty, I have been concerned about "The Boundaries of Health Care". The gap, to use that corny word, between the scientific advancement in medicine and the health information of the populace, is horrendous. Recently a young mother stated, ~~that~~ ^{tanger}, that she went through the grades, high school and college and then when faced with marriage and motherhood she realized she had had no instruction in health. She knew nothing about nutrition, prevention of disease, safety, and nothing about human development.

A student in Education chose for his Masters thesis a study of health education in the public schools. He was amazed to find that in most schools there was no health education. In others there were some sporadic lectures on topics such as VD, the Pill or, as noted recently in the news, on homosexuality.

A populace with no realistic knowledge about matters of health ~~are~~ indeed, vulnerable to exploitation. The advertising of over-the-counter drugs on all the News Media, is one example . The "Talk Shows" promote food faddism, and sexuality is played up constantly, to mention only a few of the evils people are exposed to. Reporters with a nose for news play up as if they were accomplished facts, such topics from science as genetic engineering and test tube babies. It is not surprising that parents are frightened and oppose any health education in the schools.

There are some hopeful signs; although medical students have always been idealistic, the students of the sixties added activism to their idealism. Some were so carried away by their enthusiasm for social change that they considered such subjects as anatomy, physiology and chemistry irrelevant. In retrospect, it is evident that the concern for social change coupled

with the stability of the "Old gaurd" has brought about a change in medical Education,- a change so great that future medical histories might well compare it to the Flexner era. In the new curricula , one is apt to find courses such as " Community Medicine", " Human Developmentandand Interference with organogenesis", "Human Sexuality" and " Interview techniques". To gross anatomy has been added surface anatomy, X-Ray illustrations, and stereo illustrations. Evolution in Medical Education is continuing.

What is needed now, obviously is health education for the public. The logical place to start this is in the Teachers Colleges or the University Courses certifying teachers. Until we have teachers who are knowledgable we can not hope to have a curriculum for the pupils. As long ago as 1940 Anton J. Carlson of Chicago, in a lecture to a graduating class in Medicine stated, " We are slowly realizing that at all stages of education the tradinonall " Three R's" must be rounded out with an "H" , which stands for , not hallelujah, but for HEALTH! Progress is slow, but lets not give up!

A required health course for teachers should include structure and function of the human body; with the availability of models, stereos and transparencies, this can be taught without resorting to dissection of frogs. Included also should be nutrition, safety, prevention of infection including VD, the use and abuse of drugs, genetics and human development and reproduction with emphasis on the optimum age for pregnancy, the responsibility assumed in rearing a child and the joy and mystery of human development.

With a knowledgable populace and the cooperation of all the health sciences the boundaries of health care might be expanded and actually contribute to solving some of the social problems.

H.E.Thelander, M.D.

*H.E. Thelander
please return*

Later published

THE MOTHERS' MILK BANK, INC. ORIGIN AND HISTORY

Introduction

In 1975 Children's Hospital will celebrate its Centennial. The Mothers' Milk Bank has just passed its 25th anniversary. Its forerunner, the Baby Hygiene Committee dates back to 1909. These organizations have all had in common the desire to enhance the WELFARE OF CHILDREN. Professional names in the community of San Francisco are common to all three, - namely, Adelaide Brown, Florence Holsclaw, Charles Fleischner, Ina Richter, Mary Mathes, Gertrude Jones, Ed. Shaw, H.E. Thelander, Dick Leonards and many others. As noted hereafter, twice, the Mothers' Milk Bank has been housed in Children's Hospital.

It is appropriate, therefore, to put together for the Centennial year, a history of the Mothers' Milk Bank and its predecessor, the Baby Hygiene Committee of the American Association of University Women. On the tenth anniversary of the Milk Bank Dixie Saper, gave to the celebrants a brief history of the activities to that date. Hellen Fell, also had written up a short account for another group. These stories and numerous letters by Elise Graupner describing the work, form the basis for this account. The detailed statistics and graphs have been compiled by Verrel Weber. Our faithful secretary, Frances Boomer, has been able, always, to put her finger on the desired information and to type out the necessary pages when requested.

July 19, 1974

Hulda E. Thelander, M.D.

THE MOTHERS' MILK BANK, INC. ORIGIN AND HISTORY.

In 1909 President Theodore Roosevelt called the first White House Conference on Children and Youth for the stated purpose of considering the health needs of the nation. This conference stimulated considerable activity at local levels. In San Francisco, Miss Elizabeth Ashe had started a Day Creche in the Telegraph Hill Settlement to care for infants of the women working in the canneries. Dr. Florence Holsclaw was the medical advisor to Babies Aid, an organization with two resident homes for abandoned and orphaned infants. Dr. Adelaide Brown was concerned over the high infant mortality and was instrumental in forming a committee on Community Health Education. The women of the Associate Collegiate Alumni (later the AAUW- American Association of University Women) got involved and this led to the formation of the Baby Hygiene Committee, the forerunner of the Mothers' Milk Bank, Inc.

Since the mortality of bottle fed babies in 1909 was very high the milk supply was investigated. It was found that in many communities the milk was transported in eight or ten gallon cans from the dairies, without refrigeration, and deposited at the grocery store where it stood at room temperature. Customers brought their own containers, the milk was dipped out from the large cans and carried home. Again, at home there was no ice for chilling. Furthermore, in the dairies where the milk came from there was little or no supervision of the herds, the health or cleanliness of the workers or sanitation in general. The medical profession, finally, stepped in officially to remedy the situation. A milk commission was formed by the San Francisco County Medical Society, Adelaide Brown being a member. Certified milk was the result. This was milk from healthy cows, proven to be free from

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tuberculosis, melitenis and other diseases. It was produced under sanitary conditions of both the herd and the milkers. It was cooled, bottled and sealed with the milk commission's seal at the dairy and delivered on ice to the home of the infants. The bacteriological studies were done at the Hooper Foundation, University of California, by Dr. K.F. Meyer, Dr. E.Charles Fleishner' and Edward B.Shaw, then a medical student at the University of San Francisco.

A Certified Milk Fund Committee of the Association of Collegiate Alumni (later AAUW) was created with Mrs. Adolphus E.Graupner as Chairman. The purpose of that committee was to raise funds to provide this certified milk for the poor and dependent babies of the city. Mrs. Graupner was disturbed because, although her baby was on certified milk, her maid's infant under the Associated Charities was not. This new fund was to supply milk to the boarded-out babies under the Associated Charities, the committee paying the difference between the raw milk at the groceries selling for five cents a quart and the certified milk at thirteen cents a quart. Certified milk was supplied also to the infants at the Telegraph Hill Settlement established by Elizabeth Ashe; to the Florence Crittenden Home; to the Babies Hospital in Oakland and to Children's Hospital in San Francisco.

To raise money for this project, 2,000 coin cards with a fifty cent slot were prepared and distributed widely. Attached to the cards was a jingle written by Mrs. E.E. Brownell:

"When the fog rolls in from the ocean and
the winds begin to blow
And you pack up your belongings for the
seashore or the snow
Won't you leave behind some money for
milk that's clean and pure
For the little helpless babies of
San Francisco's poor ?"

In addition, seventy-five empty milk bottles with a slot for coins were placed in public places with an attached poster carrying the plea "Save the Babies". By December, \$1,000.⁰⁰ had been collected.

Another move at this time was the institution of foster homes to replace the large orphanages and other homes for dependent children. It was recognized that infants and young children needed mothering. Miss Katherine Felton, social worker for the Associated Charities suggested to Dr. Brown that she appoint some pediatricians to instruct the foster mothers in the care and feeding of the babies. (Pediatrics was a relatively new specialty at this time, most children were cared for by general physicians.) The physicians chosen were, Drs. Florence Holsclaw, Anna Rude and E. Charles Fleischner. These three physicians arranged for weekly conferences at the Associated Charities building, 1500 Jackson Street. Careful records were kept and these proved of considerable value later. To complement this service, a nurse from the Associated Charities visited the homes to show the mothers how to prepare the formulas and how to sterilize the equipment. She also gave

She also gave instructions for the general management of the infant.

One of the most interesting developments of the weekly conferences was the invasion of neighboring mothers seeking advice for their own babies; and this was the real origin of the WELL BABY CENTER idea. It was imitated later not only by the establishment of similar centers by the Department of Public Health but also in the offices of private pediatricians for a small yearly fee. Dr. Brown arranged and gave a course of talks at the San Francisco Settlement on Mission Street.

A pamphlet entitled "Helpful Hints on Care of the Baby" was prepared and mailed to every mother registering the birth of her infant with the Board of Health in San Francisco and Alameda counties. The committee did all the clerical work at the Board of Health offices and paid the expenses of printing and distribution. The pamphlet was later translated into French, Spanish, Italian and Portuguese.

When the Panama Pacific International Exposition was held in San Francisco in 1915, the well baby clinic was held at the Palace of Education at the fair. It served as a demonstration of well baby care. The committee provided the physicians and also a nurse who conducted an information booth for visitors. This was done in cooperation with the U.S.A. Childrens Bureau, Miss Julia Lathrop as Chief. For this participation, the committee received a Certificate of Recognition from the Bureau.

At the instigation of the committee, the Board of Health created a position for a child hygiene nurse whose function it was to visit the homes of boarding children of working mothers. The Board of Health

authorized the committee to select and pay the nurse since the Board had no money, the Baby Hygiene Committee assumed the responsibility. It was the beginning of the Board of Health's Public Health Nursing Service. Miss Eleanor Stockton was the first nurse serving in this capacity.

To further enhance the work, the Baby Hygiene Committee next embarked in movies. The Minerva Movie Co. made a film covering infant hygiene and child psychology. It was made under the directions of physicians. Most of it was filmed in the basement of the Sutter Hotel, but some was filmed at the Associated Charities headquarters and some in the Well Baby Clinic and even in some homes. The film was called "Motherhood". The Premiere was March 10, 1917 at the St. Francis Theatre. It had seven reels and took two hours to run. The purpose was primarily educational but it was hoped it could also be a fund raiser. It performed well in education but the investors lost money. When Baby Welfare Week was held at the Civic Auditorium, the committee cooperated with the Federated Women's Clubs by taking over the health exhibit. The film was shown free there and also at the Rotunda of the City Hall where it was viewed by 600 people. Futhermore, William Lucas, pediatrician, then serving in France, cabled requesting permission to have the film, "Motherhood" sent to France under auspices of the American Red Cross. Later, upon request, it was sent to Sydney, Australia.

When the quarters at the Associated Charities were no longer adequate, a new and larger home was found on Haight Street. There two conferences

were held weekly with Dr. Holsclaw in charge, one of these was for the boarded-out babies and the other for any mothers who wished to bring their babies to the Center.

The next Children's Year was 1918 declared by the Federal Government because of the findings by the medical examining boards for the war service. The number of rejectees was appalling. Apparently the majority of the defects discovered were felt to be preventable. The Government issued programs for Children's Year all over the country, designating June as the big month. The program urged weighing and measuring and complete physical examination of the children. All existing clinics and centers were pressed into service. Many organizations furnished volunteers to carry on the work. The Baby Hygiene Center was used as a model for the whole State of California. Doctor Adelaide Brown was appointed Children's Year Chairman for the State and Mrs. Alfred McLaughlin, then Chairman of the Baby Hygiene Committee, was appointed Chairman for San Francisco. Later that year, Miss Van Winkle was to combine secretarial work and home calls and she was given the designation of "Visitor".

In 1919 under the impetus of Dr. Adelaide Brown, services were extended to include prenatal and postnatal classes for mothers and instruction regarding the care of the runabout child or preschoolers. A Ford was purchased for the use of the Visitor.

Another result of the Children's Year was the establishment of a Well Baby Center at the newly organized Visitacion Valley Recreation Center under the inspiring guidance of Miss Florence Friedman. The

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Board of Health furnished the equipment and supplied the visiting nurse and the Baby Hygiene Committee provided medical services and two volunteers to assist.

By 1920 the work had become so well known that both the University of California and Stanford Medical Schools sent students to observe and participate in the Center. The work continued to expand. There was growing emphasis on the care of the runabout child. Nurses from the State Bureau of Child Hygiene attended the Center for training and preparation in pre-and postnatal care before assuming work in rural districts.

At the Convention of the American Medical Association in 1923, the Center had a week of "Open House" with demonstrations and lectures on the work of the Center. The Call-Bulletin published prenatal talks prepared by the committee. These talks were republished in the News and in "Health and Strength" a Masonic Association publication.

From 1923 on, for the next 20 or more years, the Baby Hygiene Committee continued its creative services to the community. Both smallpox vaccination and diphtheria immunization were introduced. The materials were supplied by the Public Health Department and administered by the Baby Hygiene medical staff at the Center.

Dr. Anne Martin, a psychologist, was added to the staff. She evaluated the children according to the Gesell technique and gave talks to both the parents and to the staff.

Dr. Charlotte Greenhood, a dentist, joined the group and a study of early caries and the causes contributing to poor teeth were investigated in conjunction with the medical staff at the Center. This work was published(see Appendix).

Mabel Fitzhugh, a physiotherapist, gave instructions to the parents pointing out factors which might hinder proper development of posture or, when abnormalities were discovered, therapy was instituted. This work was also published(see Appendix). Frieda Caffin, RN, a nurse with exceptional experience in both nursing and incidentally in midwifery, was the nurse for the next decade or two. Her help was exceptional. She had served in the European War, World War I, taken a course in midwifery in England and then returned to work in Appalachia before coming to San Francisco. Edna Rockstroh who had worked with Miss Caffin in England and Appalachia, was at the Center a short time and then joined the Public Health Clinic serving the migrants in the Valley. Classes for expectant fathers were started by H.E. Thelander, M.D..

In 1934 the Center moved to 754 Oak Street. About this time, Drs. Brown and Holsclaw became concerned when so many of the mothers appeared year after year with a new baby. Not only was their physical condition noticeably changed but there was obvious emotional and financial stress. In February 1929, the Maternal Health Center opened as a sub-committee of the Baby Hygiene Committee, financially supported by interested individuals. The main purpose was to provide education and instruction

in birth control, to help women space their children for the good of the whole family. Dr. Brown was the first chairman of the program. Also at this time, upon request of some obstetricians, the nurse of the Center made home calls on their private patients after dismissal from the hospital to help the young mothers with the technique of newborn care.

At the suggestion of Dr. Ina Richter, a cardiac diagnostic center was established. A grant of \$5,000. from the Rosenberg Foundation made the work possible. It was carried on in cooperation with the Health Department and the American Heart Association. After 4 years the cardiac diagnostic work was turned over to the Department of Health. The equipment was transferred from the Center to 101 Grove Street and Dr. John Sampson of the American Heart Association became director. It was still under the auspices of the Baby Hygiene Committee, staffed by their volunteers, the same volunteer doctors and a technician paid by the Committee.

Pertussis immunizations were started in 1942. The Department of Public Health was short of funds again and the Center offered to give the service. 1,200 children were referred from the Department of Public Health that year. To meet the costs, a fund was started in honor of Dr. Brown whose long and remarkable career had ended in 1940.

The years of depression followed by the war years caused many changes in health practices. At the end of 1942 the Community Chest discontinued

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support of the Baby Hygiene Committee. As a result in August Dr. J.C. Geiger wrote to Mr. James K. Moffitt, President of the Community Chest:

"the work of this group exercises an important influence on the development of community health programs and has in the past made far reaching contributions in this field. The valuable health work done by this agency falls into two main parts: 1. Service - healthy guidance to infants and runabouts; 2. Demonstration: studying, operating and getting projects ready for acceptance of the official health agency for city wide application".

Solicitation of funds then became an important item. The mothers who had come to the Center wished to help toward keeping the Center open- 238 mothers contributed \$1,700.. By this time, however, the Public Health Department had established several well baby centers in the city and the private pediatricians were doing more of this type of work in their offices. In 1944 therefore, the Baby Hygiene Committee initiated a new study to determine the possibility of establishing a mothers' milk bank for premature and sick infants. This too evolved in the mind of Mrs. Graupner. Mrs. Paul Dulfer was appointed to make a survey of milk banks in the United States. 135 letters were sent to San Francisco physicians furnishing them with data from these banks and asking if they believed such a bank would fill a need in San Francisco. The response was an enthusiastic one.

1945 was a difficult time for the Center as so many doctors were away in war service. It was decided therefore to close the Center and

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concentrate entirely on establishment of a milk bank.

The mothers of the Center were given a list of all the Public Health Centers. Mrs. Graupner was appointed permanent record chairman and records were stored in her home. The mothers were notified of this so they could have access to records when the children would become of school age and need their immunization or other information.

There is usually some humor in every situation and this is a story that must be told. The furniture and equipment of the Center were being sold prior to closing. There were some small chairs and tables that the children had used. Mrs. Graupner was eager to get as much money for them as possible and thought of the Golden Gate Kindergarten Association as a likely buyer. When she got in touch with them, Mrs. Henry said, "Well I really do not think we would be interested in buying them because we lent them to you ten years ago". Mrs. Graupner said her blush was all the deeper for she had been chairman at that time, 10 years previously.

In April, 1945 at the official closing of the Center, Mrs. Walter Hempy, chairman, stated in essence "off with the old on with the new - a fresh chapter in the history of the Baby Hygiene Committee is underway. There is a feeling of regret but also gratification that work first pioneered in the interest of child health had become an established part of the program of the Department of Health".

In 1946 and 1947 work toward establishing a milk bank proceeded with

continued investigation, raising of funds, search for a site and consultation with City and State Health Departments. Dr. Mary Mathes, chairman of the medical advisory committee during this period gave sound advice on many details. Concurrently, the educational program developed with emphasis on parent-infant relationships, the role of breast feeding and rooming-in. Rooming-in, the arrangement whereby the new born infant remains with its mother while in the hospital, was quite revolutionary at that time. During 1947, Mrs. Saper as Educational director carried on extensive correspondence with key pediatricians, obstetricians and psychiatrists over the United States, stating that the Baby Hygiene Committee was contemplating opening a mothers' milk bank and requesting data on the value of breast feeding and in addition, reports on their experience with rooming-in.

The Mothers' Milk Bank, Inc. finally opened at Children's Hospital in the summer of 1948. It was established by the Baby Hygiene Committee of the AAUW, San Francisco Branch. It was incorporated under the laws of the State of California as a non-profit corporation. It was to be governed by a medical advisory staff regarding all medical policies. The incorporation as well as the details necessary prior to incorporation was done gratis by Mr. Aaron Sapiro, later assisted by Nora Blickfelt. Dr. J.C. Geiger, chief of the Department of Public Health gave generously of his time and experience in starting the new service. The work appropriately was dedicated to Dr. Adelaide Brown, co-founder with Mrs. A.E. Graupner of the Baby Hygiene Committee. The first medical advisory committee were Drs.

Clain Gelston, Mary Mathes, Lois Brock, Martha James and Hulda Thelander. The founders are listed in the Appendix.

The stated purposes of the Mothers' Milk Bank were:

- (1) to collect surplus milk from healthy nursing mothers, pasteurize and distribute it on doctors' orders to premature and sick infants
- (2) to supply human milk for research
- (3) to serve as a demonstration center for medical and lay groups.

An annual grant from the James Irvine Foundation, made it possible to give milk free of charge. This donation plus the contributions of many friends of the Milk Bank meant that no charges were made for the milk until 1969.

The procedure as developed by the Mothers' Milk Bank is as follows:

Milk is collected two times a week from donor mothers. In each case permission is required from the prospective donor's obstetrician and pediatrician, plus assurance of the health of the donor and her baby. Milk is pooled, pasteurized and frozen, ready for immediate use or storage. The San Francisco Department of Public Health analyzes samples of individual and pooled milk each week for bacterial content.

This provision of mothers' milk for premature and sick infants was an appropriate tribute to a woman, Dr. Adelaide Brown, who had always advocated mothers' milk and had fought so valiantly for clean cows' milk. During the following years under the chairmanship of Mesdames

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Boland, Perkins and Saper the education program continued through several media. Several of the committee members at their own expense visited the milk banks in Los Angeles, New York, Chicago, Boston and Pittsburgh and the rooming-in procedure at Washington, D.C., Detroit, Yale University and Oakland. As a result of Mrs. Boland's visit to Jefferson Hospital, Philadelphia, the committee was able to show for the first time in San Francisco a film on rooming-in. Later that year as a result of contacts with Eastern doctors through correspondence a panel on "Rooming-In" was held at the Department of Public Health building during the week of the American Academy of Pediatrics Conference here. Each panel member represented a hospital where rooming-in was in operation. Dr. Earl Marsh of Franklin Hospital which had had rooming-in for a year was moderator. There was now enough material on parent-child relationships collected to warrant publishing a bibliography of 85 articles. These were distributed and used as references by doctors, hospital administrators, obstetrical teaching supervisors, mental health societies, recreation centers, public health departments, nursery schools, child care centers, family life workshops, student nurses, and other groups and individuals.

The committee had a number of public meetings on various phases of parent-child relationships. Many of these were in cooperation with other organizations such as the Department of Health, Parent Teachers Association, San Francisco Volunteer Bureau, Children's Hospital, Mothers' Milk Bank, Inc., Visitacion Valley Community Center. The Baby Hygiene Committee likewise co-sponsored, with other organizations, several series of talks on child psychology put on by the Adult

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Division of San Francisco Schools.

The above information has been gleaned largely from the accounts by Dixie Saper, Elise Graupner, Hellen Fell and the work of other members of the Baby Hygiene Committee of AAUW and the Mothers' Milk Bank. It reveals the foresight of these pioneer women in the field of health, hygiene and sanitation. Many areas pioneered by them are only now gaining prominence and emphasis in the Health Sciences. The translation of the instructions into French, Spanish, Italian and Portuguese sounds like the modern news releases on integration and bilingual education. Child psychology, mothering, home visits for instruction, the education of fathers as well as of mothers (maybe that has not caught on yet!), maternal education and pregnancy spacing before birth control was a respectable phrase, and all the while emphasis on breast feeding both for its superior nutrition and for fostering mother-child relations.

When Children's Hospital started on a major building program in 1960, necessitating the destruction of old buildings, the Mothers' Milk Bank, moved to Stanford Hospital (now the Presbyterian). Stanford Medical School had moved to Palo Alto thus leaving some space. The Mothers' Milk Bank remained there until 1973 when it returned to Children's Hospital. The new laboratory was dedicated to Sophia Pierce Brownell on December 15, 1973.

The desirability of a followup was recognized early and an alumni organization was formed. When an infant goes off the service or

graduates, a letter is sent to the parents telling the quantity of breast milk used, expressing good wishes for future health of the child and informing them of the alumni association. About 4 months after graduation an invitation to membership is sent including a request for a progress report and a snapshot of the child. This diploma is a simple unpretentious piece of pink paper but its context is different from anything the child will ever receive during the rest of his life. It has the child's name, date of birth, having received mothers' milk at the request of the doctor, the doctor's name, is enrolled or is a member of Mothers' Milk Bank alumni association. Mother's milk was given as an aid towards healthy childhood.

At the end of the first ten years of the Mothers' Milk Bank, Mrs. Saper summarized the work accomplished for the Board, the parents, the donors and other interested personnel. At that time 256,428 ounces or 8,013 quarts of breast milk had been dispensed to 702 premies or sick babies. By 1973 the amount had increased to 622,058 ounces. The detailed study of the first twenty-five years of the Mothers' Milk Bank has been made by Verrel Weber and this study follows.

A Study of A Quarter Of A Century Of Mothers' Milk Bank Recipients By Verrel Weber.

As the Mothers' Milk Bank neared its twenty-fifth birthday, it was deemed advisable to make a study of the babies who had been on the service during the past quarter of a century. This report is by way of an accounting to all those whose money, time, energy and devotion

have made it possible for the Mothers' Milk Bank to render this service to sick and premature babies; the donor mothers, the motor corps, the laboratory assistants, the officers and directors, and the generous contributors. It is to be regretted that much of the information is less complete than we would like, especially in these areas:

- 1- economic and marital status of recipients' parents
- 2- ethnic background - this information is not forthcoming because it is said to be "an invasion of the privacy of the recipients' parents and none of the Milk Bank's business"
- 3- reason for ordering mothers' milk - these are not always given freely or accurately
- 4- weight gain while on service

The only explanation for this lack of information is the fact that mothers' milk is dispensed only on the request of a physician. Such requests usually come to the Mothers' Milk Bank office from nurses in hospitals and physicians' offices. Our staff tries, but most times in vain, to get this information. Therefor, it is not possible to present a statistical survey. We must be content to draw such conclusions as we can from a broad overview of the whole situation.

Procedure This is not a random study but one based on a complete review of all of the material in the folder of every recipient. Each folder was examined, pertinent information abstracted, entered on a work sheet and later transferred to tally sheets, one for each year.

Number of Babies on Service Nearly 1,600 babies have received mothers' milk on prescription since the Mothers' Milk Bank began its operation.

The distribution over the years is as follows:

1948	51	1961	37
1949	82	1962	41
1950	86	1963	31
1951	63	1954	29
1952	53	1965	22
1953	52	1966	27
1954	50	1967	31
1955	51	1968	40
1956	61	1969	72
1957	85	1970	127
1958	70	1971	89
1959	96	1972	151
1960	79		

The small numbers served from '60 through '68 and the sharp increase in '70 - '72 in spite of the declining birth rate give cause for speculation. How can this be explained? It has been suggested that this could reflect a change in the thinking of neo-natologists regarding nutrition and its effects on the health of the newborn.

Location of Recipients 45% of babies were in San Francisco; 30% of babies served were in the Bay area and 25% of babies served were outside the Bay area. The very few outside the state were in Washington, New Mexico, Idaho, Texas, Hawaii, Manila and Mexico City. One baby was born prematurely in San Francisco while her parents from Venezuela were visiting San Francisco for a medical meeting. As mentioned in the introduction, information in this area is spotty.

Parentage (and woefully incomplete.) However, we do know that while most of the babies on the service have been caucasian, the Mothers' Milk Bank has served Blacks, Mexican-Americans, Chinese, Japanese and American Indians.

From 1970 to the present date, the number of recipients for whom no father is indicated has risen sharply - 32 in 1970, 24 in 1971, 19 in 1972 as opposed to an average of 2.9% from 1948-69.

It is interesting to note that among the mothers of recipients, two were former donors to the Mothers' Milk Bank.

Sex Each year male recipients have outnumbered female on the average of 55%-45%.

Multiple Births While most of the babies served were singles, there were 52 pairs of twins with 16 cases of surviving twin and 6 groups of triplets, with 3 cases of one or two surviving triplets.

Size-Age at Beginning of Service Roughly, 75% of the cases were put on the service during the first week of life. The birth weight of recipients ranged from 1½-10 pounds distributed as follows:

1-2 pounds	3½%
2-3	14.5%
3-4	14.5%
4-5	21%
6	23%

In some cases the baby was not weighed, or if it was, we have no record, hence, the failure of the percentage figures to check.

Reasons for Service Although the chief reason for the prescription of mothers' milk is prematurity, a listing of the myriad other reasons is interesting and informative:

Heart, Circulation, Blood

anemia

ABO Blood incompatibility

erythroblastosis

cyanotic

thrombocytopenia

congenital heart

congestive heart failure

Nervous

cerebral palsy

convulsions

fractured skull

hydrocephalic

hypertonic tremors

Gastric, Enteric, Digestive, Metabolism, Assimilation

allergy

bilirubinemia

bowel obstruction

diarrhea

feeding problem

intolerance to formula, cow's milk

malabsorption

malnutrition

metabolic dysfunction

pyloric stenosis

Respiratory

hyaline membrane respiratory distress syndrome

Infection

chickenpox (exposure to)

enteritis

hepatitis

meningitis

poliomyelitis

pneumonia

sepsis

toxic mother

Other

caesarian

congenital anomalies

calcium insufficiency

dehydration

difficult delivery

eczema

hernia

jaundice

losing weight

placenta previa

phosphorus level high

small baby

supplement for own mother's milk

surgery, both pre-and post

Turner's syndrome

ureostomy and urinary difficulty

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Physicians Using Service Dr. Hulda Thelander was the first physician to call on the Mothers' Milk Bank for mothers' milk for one of her patients. This request came on the first day of the Milk Bank's operation. The number of physicians using the service for their patients ranges from 12 in 1967 to 47 in 1972. Some used the service but once, others twice or more. In 1970 one San Francisco physician prescribed mothers' milk for 48 of his patients.

Results Babies have expired while on the service or soon after being taken off. Our records regarding this are woefully incomplete as we are not permitted to follow up each time an order is discontinued. Inasmuch as mothers' milk is issued only on prescription for a specific condition, babies are taken off the service as soon as the immediate need is over. So far as we are able to tell, the vast majority of Mothers' Milk Bank recipients have been taken off the service because of an improvement in the condition for which it was prescribed. In only 6 cases among our quarter of a century of recipients were babies taken off mothers' milk because they could not tolerate it or because no improvement was noted.

Many letters from grateful parents on file in the office are heart warming and a source of satisfaction. More than these, however, words of commendation from busy professional people mean a great deal. Busy physicians have taken time to write in detail of the beneficial results in their small patients. One physician in Texas wrote such a letter commending the Milk Bank, and sending a check asking to be included on our mailing list. A physician in Los Angeles wrote "The milk you sent saved the life of my brother's child". A superintendent of nurses in a

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Manila hospital wrote "The parents of Baby X turned over to us the surplus milk which he did not need; to date it has been a life saver for two babies and we are carefully hoarding the remainder for use in other emergencies". Comments from other physicians:

"Breast milk serves to get babies over a critical period where all else in the way of infant food has failed"

"I know that the breast milk helped pull him through these important first weeks of life"

"We believe that your help in providing mothers' milk for this patient helped carry her through a terribly difficult time and was probably life saving in this case"

"Her mother and I both felt that the use of mothers' milk from the Mothers' Milk Bank made a marked improvement in this child who had had very severe eczema and asthma"

"The - twins are doing remarkably well, particularly - who was 2 pounds 14 ounces at birth and today weighs 4 pounds 3 ounces (26 days old). He received breast milk until 4 days ago when we put him on formula"

"I feel sure we would have lost the baby without breast milk. Every other food in weak solution was not tolerated. This infant had a pyloric stenosis for which condition she underwent surgery. It is my opinion that the post operative progress

was definitely helped by the use of mothers' milk"

Conclusions This report suggests some interesting avenues for further study:

- 1- investigation of the fluctuation in numbers of babies served in the years 1960-68 and the sharp increase in 1970-72 despite a declining birth rate
- 2- an investigation of reasons for prescribing mothers' milk to discover if advances in pre- and neo-natal care have made appreciable differences.

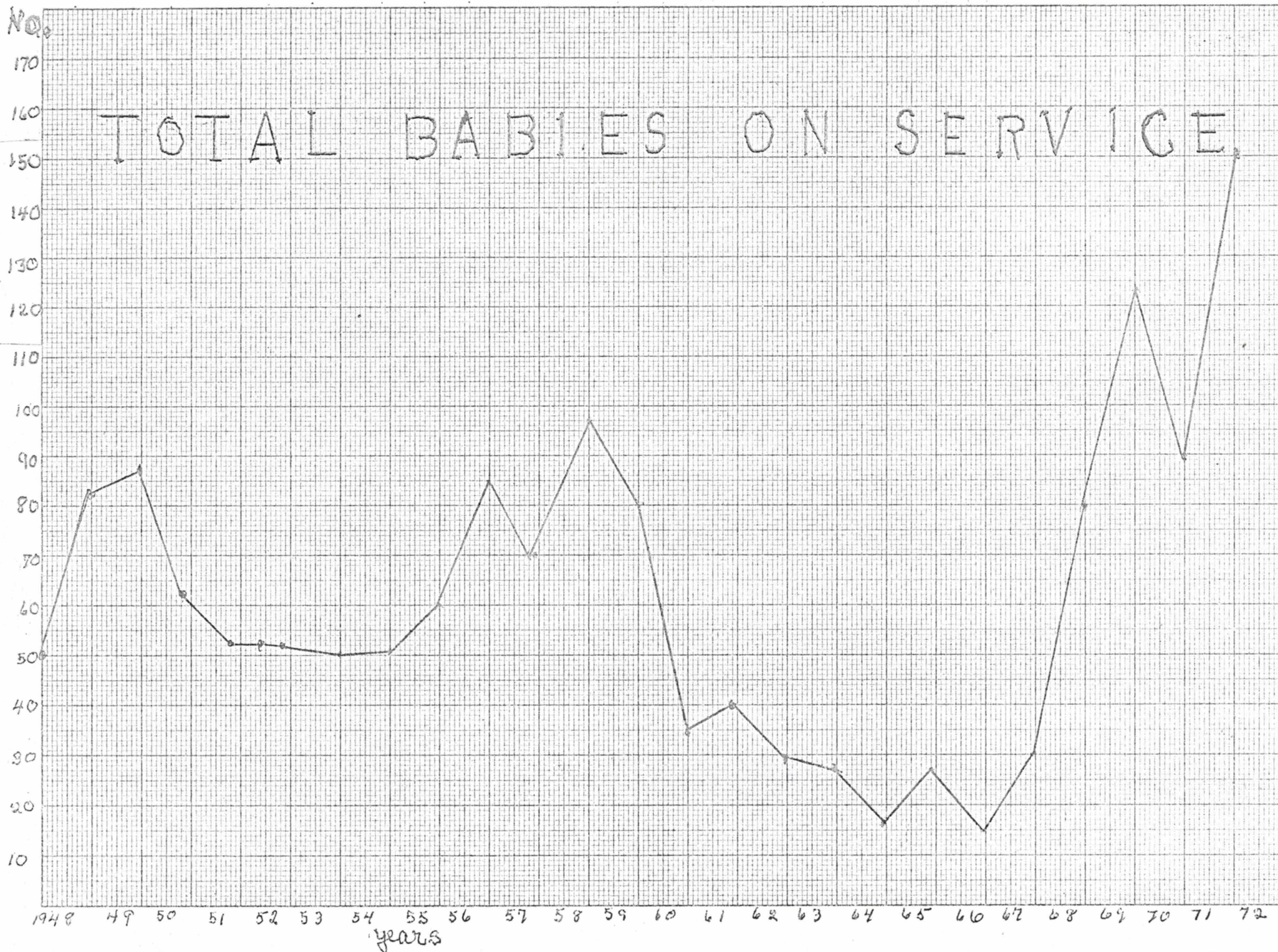
If the records of the Mothers' Milk Bank are to be more meaningful to health workers, neo-natologists and sociologists than the simple listing of name, address, attending physician, and amount of mothers' milk dispensed, some kind of procedure should be set up so that the Mothers' Milk Bank will be able to collect exact information regarding the items mentioned in the first paragraph of the introduction. This is particularly important in the light of the Mothers' Milk Bank's plan for expanded research.

Although, as noted in Verrel Weber's report, the Mothers' Milk Bank has not been able to carry out interesting clinical studies, it has contributed to research by supplying milk to numerous laboratories. In 1952 it financed the medical follow up studies of prematures born at Children's Hospital between 1947 and 1952. The major part of this work was done by Pilar Centano, M.D. then a fellow in Pediatrics at the Hospital. In 1951 it supplied Garnett Cheney, M.D. with milk for a study of gastric

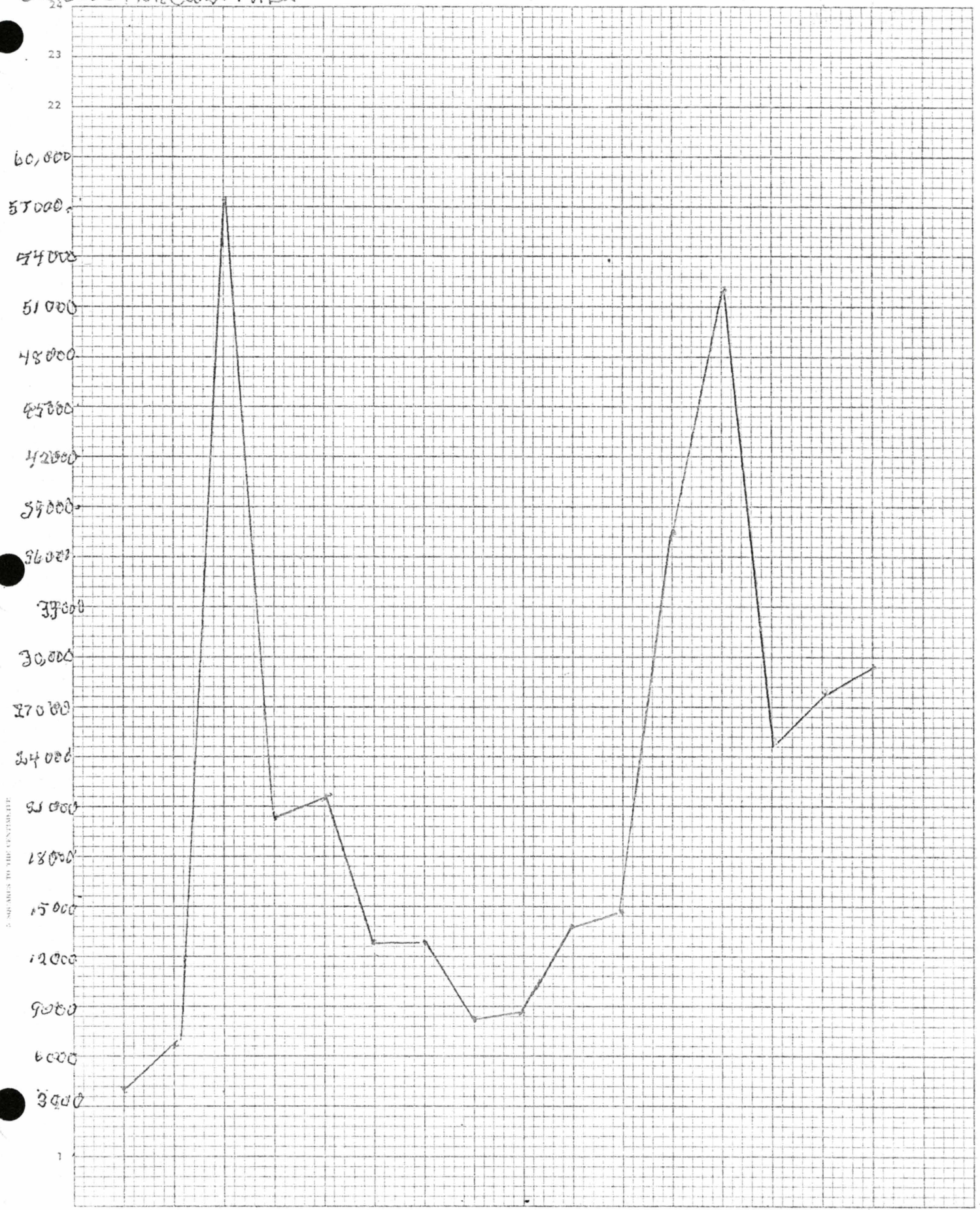
ulcers.. In 1951 and again in 1956 it furnished fresh, unpasteurized milk to the Research Laboratories of the Gerbers Products Co.. In 1955 the Mothers' Milk Bank financed the construction of a pneumotachygraph machine for Pieter De Vries, M.D.. It was used for the study of respiratory difficulties in premature infants and newborns in distress.

Many other studies have been conducted in laboratories across the country; these are listed in Appendix A. The Bibliography, Appendix B, lists articles published by participants at the Center and also articles from other Research Laboratories receiving milk from the Mothers' Milk Bank at Children's Hospital. Some research may not have been published and some may have been published but the Center does not have the record.

The promotion of breast feeding continues. Unfortunately there are still many infants who need it but are either too premature or they may be too ill to ~~do it~~ ^{nurse} as noted earlier. The last few years have witnessed a change of attitude, many young mothers now desire to nurse their infants. Practicing physicians and also the educators in medical schools are stressing it. This is encouraging, but the need for breast milk banking will probably persist for some years to come.



Ounces Breastmilk



years 1958 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73

APPENDIX A

Use of Human Milk for Research supplied by the Mothers' Milk Bank
Stanford University Hospital

Cheney, Garnett, M.D., Gastric Ulcers

Distillation Products Industries Research Laboratories, Rochester, N.Y.

Harris, Philip, M.D., Tocopheral Content, Vitamin E; Samples
of Different Stages of Lactation.

Gerber Baby Foods Co., Research Laboratory

Stewart, Robert A., Ph.D., Enzyme Alkaline Phosphatase
Content; Analyses & Composition of Protein, Carbo-
hydrate, Fat, Calcium and Phosphorus; Fatty Acid
Content As Compared With That In Other Milks.

U.S. Atomic Energy Commission Health and Safety Laboratory, N.Y.

Lough, S.Allan, M.D., Ratio of Strontium 90 in Human Milk
And Cows' Milk.

University of California, Crocker Laboratory - Berkeley, Ca.

Durbin, Patricia W., M.D., Ratio of Strontium to Calcium;
Spectroscopic Determination of Trace Minerals Present
In Human Milk.

University of California Medical Center, San Francisco, Ca.

Sussman, Sidney, M.D., Diarrheal Diseases; Ecoli Antibody
Titer.

Greenberg, Louis, M.D., Comparison of Formula and Human Milk
On Monkeys.

Gonzalez, Ernest, M.D., Study of Leukemia.

University of California, Dept. of Food Sciences, Davis, Ca.

Feeney, Robert E., Ph.D. and T.A. Nickerson, Ph.D., Bio-
chemical and Biophysical Properties of Human Milk;
Preservation of Human Milk.

Smith, Loyd M., Comparison of Milk Fats Used For Human Food
to Determine Distribution Patterns of Fatty Acids;
Triglyceride Structure of Human Milk As Compared To
Milks From Other Species.

University of Cincinnati, Dept. of Pediatrics

Effect Of Human Milk On The Clotting Mechanism

University of Minnesota, Dept. of Biochemistry

Proteins

The Australian National University, Dept. of Physical Biochemistry

McKenzie, H.A., Ph.D., Protein Composition - Comparative
Studies: 1. Women During Different Periods of Lactation
2. Women Of Different Ethnic Groups 3. Human milk
With That Of Other Mammals

Veteran's Administration Hospital, San Francisco, Ca.

Whitehead, James E., Ph.D. Studies of the Enzyme Responsible
For Formation of the Blood Type A Determinant.

APPENDIX B

Publications During The Baby Hygiene Committee Period:

Thelander, H.E. and Fitzhugh, Mabel L., Posture Habits In Infancy
Affecting Foot and Leg Alignments. Journ.Ped.Vo.21, No.3,
pp 306-314. Sept. 1942.

Fitzhugh, Mabel L., Straight From the Start. Dept.of Public Health. Ca.
Bureau of Maternal and Child Health.1944.

Thelander, H.E., A Five Year Clinical Study of Factors Affecting First
Dentition. Journ.Ped.Vol.20.pp 187-199.1942.
Above was abstracted and published by Dentistry.

Fitzhugh, Mabel L., Sitting and Sleeping Habits Of Children. Physio-
therapy Review. Vol.25, No.3, May-June, 1945.

Thelander, H.E., Factors Influencing Infection in Newborn. Arch.of Ped.
Vol.LVll, No.11.pp 685-693. With special comment on breast
milk pp 692.

Thelander, H.E. and Kilgariff, Kathleen, An Evaluation of Diphteria
Immunization. Journ.Ped. Vol.1, No.4.pp 470.1939. With
reference to studies by the Baby Hygiene Committee on pp 7.

Publications During The Mothers' Milk Bank Period:

Centeno, Pilar A., M.D.; Walter, Ruth, M.D. and Thelander, H.E., M.D.
Five Year Study of Prematurity, Ca.Med.84:269-278.1956.

Stewart, Robert A.; Platou, Elly; and Kelly, Vincent J. The Alkaline Phosph-
atase Content of Human Milk. Journ.Biochem.Vol.252.No.2.
June 1938.

Jack, E.L.; Freeman, G.P.; Smith, L.M.; and Mickle, J.B. Pancreatic Lipase Hydrolysis of Cows' Milk Fat. Journ. Dairy Sci. Vol. XLVI. No. 4. pp 284-290. 1963.

Windle, J.J.; Wiersema, Clark, J.B.; and Feeney, R.E. Investigation of the Iron and Copper Complexes of Avian Gonalbumins and Human Transferrins by Electron Paramagnetic Resonance. Amer. Chem. Soc. Reprinted from Biochem. 2. 1903 pp 1341.

Buttkus, Hans; Clark, Joan R.; and Feeney, R.E. Chemical Modifications of Amino Groups of Transferrins; Ovotransferrin, Human Serum Transferrin and Human Lactotransferrin. Biochem. 4: 998. 1965.

Greenberg, L.D. and Wheeler, P. Influence of Fatty Acid Composition of Infant Formulas on the Development of Arteriosclerosis and on the Lipid Composition of Blood and Tissues. Reprinted from The Symposium, Dairy Lipids and Lipid Metabolism. By Avi Publishing Co., P.O. Box 670, Westport, Conn.

Greenberg, Louis D. and Gonzales, I.E. Influence of Fatty Acid Composition of Infant Formulas on Development of Arteriosclerosis. Experimental and Molecular Path. 10: 240-249. 1969.

Kroger, Manfred. Insecticide Residues In Human Milk. Journ. Ped. Vol. 80 pp 401-403. 1972.

Tarasuk, N.P.; Nickerson, T.A. and Dr. M. Yaguchi. Lipase Action in Human Milk. Nature. Vol. 301. No. 4916 pp 298-299. 1964.

APPENDIX C

FOUNDERS

- Mrs. Tadini Bacigalupi
- Mrs. Francis H. Boland
- Mrs. E.E. Brownell
- Mrs. George A. Davidson
- Mrs. Paul A. Dulfer
- Mrs. Milton Eisner
- Mrs. Walter C. Fell
- Mrs. Harry Geballe
- Mrs. Adolphus E. Graupner
- Mrs. Walter J. Hempy
- Mrs. Robert D. Jessee
- Mrs. Richard J. Nasser

Mrs. Carl H. Riesen
Mrs. Milton Saper
Mrs. Arthur C. Sutton
Miss Ruth A. Turner
Mrs. Patricia Wyman

APPENDIX D

Chronology of services initiated:

1909 Certified Milk Fund Committee

1910 Opening of the first Well Baby Center

1910 Dr. Brown instituted a series of lectures on infant hygiene

1910 Publication of "Helpful Hints on Care of Babies". Translation into French, Spanish, Italian and Portuguese

1915 Panama Pacific International Exposition - Well Baby Clinic moved to Palace of Education at the Fair for demonstration purposes to the visitors.

1917 Film, "Motherhood" prepared and shown extensively for many years.

1918 Children's Year. Center used as a model for the State with emphasis on physical fitness in early life to prevent defects later. Home Visitor appointed.

1919 Services of Center expanded to include preschoolers. Pre- and postnatal classes started. Center opened in Visitacion Valley of San Francisco with Miss Florence Friedman in charge.

1920 Students from UC and Stanford Medical Schools participated in the Center.

1923 Open House and demonstrations were held for American Medical Association. Attendants at the Convention. Public Health

- nurses received instruction in pre-and postnatal care.
- 1924 Smallpox vaccination and Diphtheria immunization was given to the children. Psychologist added to the staff. Center hired its own nurse, Miss Frieda Caffin who assisted in the clinic and also made home calls.
- 1925 Dental hygiene introduced. Dentist appointed, Dr. Charlotte Greenhood.
- 1926 Publication and distribution by the local Call-Bulletin a series of articles on care of expectant mother and baby written by staff members.
- 1929 Introduction of information and services on family planning. Postnatal calls by the nurse on patients referred by obstetricians.
- 1933 Cardiac Diagnostic Clinic opened.
- 1940 Classes for fathers given.
- 1942 Pertussis immunization started for children referred by the Department of Health.
- 1945 Baby Hygiene Committee discontinued its well baby service.
- 1948 The Mothers' Milk Bank, Inc. was opened.

APPENDIX E

Locations of the Center

- 1909 1500 Jackson Street at the Associated Charities
- 1917 523 Haight Street
- 1927 526 Oak Street
- 1934 754 Oak Street
- 1948 Children's Hospital

1960 Presbyterian Hospital
1973 Children's Hospital

APPENDIX F

Chairmen of the Baby Hygiene Committee:

1909 Mrs. Adolphus E. Graupner
1912 Mrs. E. E. Brownell
1915 Mrs. Norman Livermore
1917 Mrs. Alfred McLaughlin
1919 Mrs. Ernest Mott
1922 Mrs. J. R. McDonald
1923 Mrs. Tadini Bacigalupi
1926 Mrs. Blake Darling
1928 Miss Edith Fullerton
1934-40 Mesdames Lorna Carroll, A. E. Graupner and Robert Jessee
1940 Mrs. Robert Gray
1942 Mrs. Walter C. Fell
1943 Mrs. Adolphus E. Graupner
1945 Mrs. Walter J. Hempy
Mrs. Paul Dulfer
Mrs. Francis Boland
Mrs. Edwin O. Perkins
Mrs. Milton Saper

APPENDIX G

Presidents of the Mothers' Milk Bank, Inc.

1948 Mrs. Paul Dulfer
1949 Mrs. Milton Saper

1950	Mrs. Adolphus E. Graupner
1952	Mrs. Walter C. Fell
1954	Mrs. Otto N. Miller
1955	Mrs. Fred Cebalo
1956	Mrs. Lawrence Billwiller
1957	Mrs. Walter C. Fell
1959	Mrs. Ferdinand J. Fernbach
1960	Mrs. Lawrence Billwiller
1961	Mrs. Adolphus E. Graupner
1962	Mrs. Robert D. Jessee
1964	Mrs. Willard L. Johnson
1965	Mrs. William H. Walley
1967	Mrs. Walter C. Fell
1971	Mrs. Stephen Lazzareschi
1973	Mrs. William E. Holt
1974	Mrs. Richard Leonards

APPENDIX H

Nurses attending Child Hygiene Committee Health Center:

Eleanor Stockton

Miss Van Winkle

Frieda Caffin

APPENDIX I

Mothers' Milk Bank, Inc. Nurses:

Mary Scroggs

Betty Adamich

Dorothy Zieger

Letitia White
Phyllis Schneider
Mary Issel
Sophie Besk
Karen Wasser
AnnMarie Nelson
Lavonne C. Johnson
Catherine Blakely

APPENDIX J

Original Sponsors:

Mesdames:

Charles de Young Elkus
Frank Gerbode
Robert Gray
Norman Livermore
Ernst J. Mott
E. B. Stanwood
Miss Lucy Stettias

APPENDIX K

Profession personnel serving the Center and the Mothers' Milk Bank:

Physicians:

Adelaide Brown, M.D.

Florence Holsclaw, M.D.

Anna Rude, M.D.

E. Charles Fleischner, M.D.

Anne Martin, M.D.

Ina Richter, M.D.

Gertrude Jones, M.D.

Mary Mathes, M.D.

Martha James, M.D.

Agnes Plate, M.D.

Lois Brock, M.D.

Charlotte Boehm, M.D.

Anita Faverman, M.D.

John Sampson, M.D.

Lester A. Luz, M.D.

Richard Leonards, M.D.

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Hooper Foundation

Dentist: Charlotte Greenhood

Physiotherapist: Mabel Fitzhugh

VIEWED FROM WITHIN

By H. E. Thelander, *Emeritus*

**Senior Medical Student
University of California, San Francisco**

Town-Gown, LMD, Ivory Tower—innocent enough words by themselves, but the tone of voice or facial expression with which they are said may give them sinister connotations. Most of my colleagues by now, know that when I retired from pediatrics after some forty years of practice, I returned to the medical school to repeat the course. I received my M.D. from Minnesota. I am now a senior at the University of California Medical School, San Francisco.

I have enjoyed my classmates. Most of them are great. Forget the long hair and shabby clothes. Maybe if we had been primped from infancy and wept in the barber's chair before two years of age we too would like to explore a change. When the demands, confrontations, strikes, parades and picketings of this period are history, it probably will be found that a new era of humanism has emerged with greater concern for all mankind. Doctor Breasted in his book "The Dawn of Conscience" attributes the "dawn" to the affluence in the Nile Valley. When for the first time, people had more than enough they could forget self and think of their neighbor. If we of the depression era will forgive some of the antics of the young, maybe when they have been a little more seasoned by the cares and burdens of medicine they will forgive us for some of our hang-ups on material things and the fears of unmet needs.

The administration not only took me in but invited me to participate in the discussions of the curriculum. The administration's job is not an easy one. To it come the demands of the students, the requests of the department heads and those of the sub-departments, the criticism from the practitioners in the field and the public, including Mr. Agnew's elite snobs. There is little appreciation of the time and effort involved to take a raw recruit and make a good physician. The administration has placed students on all the important committees; it sent recruiters to many of the colleges serving primarily minorities to encourage more of them to apply for entry to the medical school. This anteceded the students' demand by a couple of years. A massive study of the curriculum has been under way for some time. It has increased the enrollment including a considerable increase in minority students. They even are very kind and considerate to the oldest minority group, the women.

The full time faculty is caught in the middle. The classes get bigger every year, funds for increased staff

is denied them, they get the brunt of student criticism. The students now get "hand-outs" which cover the objectives of the course and contain a detailed outline of the subject matter, the kind of information you and I took long-hand notes on. The curriculum is changed on short notice which calls for revision of plans not only for themselves but for the rest of the staff with their varied commitments. The professor is criticized by the clinicians, graded or rated by the students and is under the surveillance of his contemporaries in the educational field. The practicing physician has the constant feed back of his grateful patients, the teacher, only that of the not-so-grateful modern students and the pleasure he gets in exploring the unknowns in his own field. Yet he remains an awfully nice guy.

The U.C. Medical School is the only medical school in San Francisco. It is a great institution. It deserves the united efforts of all of us, clinicians, students, faculty, administration and the public.

An Open Letter

(Continued from Page 16)

5. A Louisiana surgeon and a Washington dentist have now successfully countersued plaintiff and attorney and won substantial awards. While these cases are on appeal, there has been widespread interest in this turn of events. We would hate to see a rash of these actions, most doomed to failure, further poison the air. Nevertheless, the mood is now such that win, lose or draw, many of our colleagues may be tempted to try it.

In summary, it is my firm conviction that a crisis exists, that intelligent compromise is possible, that too much strident rhetoric is drowning out the voice of reason on both sides, and that no resolution of our conflicting views is possible until we can begin to understand each other's problems. The image of the abused, misunderstood, blameless doctor is just as false as that of the attorney as the righteous, altruistic champion of the deprived. Both are equally as hypocritical. I suggest, gentlemen, that if we are both interested in the patient's ultimate welfare, it would be to our credit if we could resolve our differences in a civilized fashion before the heavy hand of the Government descends upon all of us. The ultimate loser would inevitably be the American public.

MARK GORNEY, M.D.

*Chairman of the Medical Legal Survey Committee
American Society of Plastic and
Reconstructive Surgeons, Inc.*

APPLICATIONS FOR MEMBERSHIP

The following applications have been referred to the Credentials Committee. They are published for the approval or disapproval of members of the Society before being voted upon by the Board of Directors. Figure in parenthesis before name shows first or second publication.

FOR ACTIVE

NAME	MEDICAL SCHOOL AND YEAR	SPECIALTY	SPONSORS
(1) Anderson, William B.	George Washington University	1957..Radiology	{ John R. Bryan Peter C. Boudoures
(1) Bancroft, John E.	University of California	1950..Orthosurgery	{ Merrill C. Mensor Lloyd W. Taylor
(1) Byram, George N., Jr.	Tulane University	1960..Orthosurgery	{ Ralph Soto-Hall Lionel Saenz
(1) Carr, Ian R.	Cambridge University (England)	1958..Pediatric Cardiology	{ Frank A. Gerbode John J. Kelly
(1) Chan, David T.-C.	University of Oklahoma	1969..General Practice	{ Maurice E. Leonard John A. Driscoll
(2) Dowell, Charles E.	Meharry Medical College	1962..Anesthesiology	{ Howard Goldsmith Alfred Marquez
(1) Drake, Thomas E.	Western Reserve University	1963..Dermatology	{ Rees B. Rees James H. Bennett
(1) Farrar, Charles W.	Baylor University	1957..Radiology	{ Granville C. Coggs Walter A. Griesbach
(1) Giammona, Samuel T.	Yale University	1954..Administration	{ William Kiyasu Alvin H. Jacobs
(2) Gunn, Robert A.	Yale University	1966..General Practice	{ Robert R. Wall C. Allen Wall
(1) Hamby, Dennis L.	University of Louisville	1963..Internal Medicine	{ Dwight L. Wilbur William G. Burkhard
(1) Hoff, Julian T.	Cornell University	1962..Neurosurgery	{ Edward S. Connolly Charles Wilson
(1) Howell, Edward J.	University of Pennsylvania	1963..General Practice	{ Andrew D. Chigos Robert F. Gobar
(1) Jaqua, Richard A.	Ohio State University	1960..Plastic Surgery	{ Roger L. Greenberg Allen H. Long
(1) Keroes, Jonathan	State Univ., N.Y. (Downstate)	1964..Internal Medicine	{ Frederic Mintz Harold I. Griffeth
(1) Miller, Ronald D.	University of Indiana	1964..Anesthesiology	{ William K. Hamilton Francis L. DeBon
(1) Quock, Collin P.	University of California	1964..Internal Medicine	{ William A. Atchley John V. Carbone
(2) Rosen, Melvin S.	Wayne State University	1964..Radiology	{ Leland R. Felton Fred K. Sondheimer
(1) Rubin, Daniel J.	Yale University	1960..Pathology	{ Thomas E. Wynn, Jr. Dante Campagna-Pinto
(1) Safrit, Henry F.	Duke University	1963..Internal Medicine	{ John C. Henderson Kenneth D. Gardner

FOR NON-RESIDENT

(2) Lawrenz, Paul F.	Univ. of Hamburg (Germany)	1945..General Practice	{ Richard E. Gardner William L. Rogers
------------------------------	--------------------------------------	----------------------------------	---

FOR AFFILIATE

(2) Clay, Reuben A., Jr.	University of Rochester	1964..Obstetrics-Gynecology	{ Edward C. Hill Alan J. Margolis
(1) Cromwell, Thomas H.	University of Iowa	1967..Anesthesiology	{ William K. Hamilton Wendell C. Stevens
(1) Higashi, Jimmie	Univ. of Lausanne (Switzerland)	1964..Dermatology	{ Howard I. Maibach William L. Epstein
(1) Holbrooke, David R.	McGill University (Canada)	1969..Surgery/Research	{ Victor Richards Frank W. Spicer
(1) Lenahan, John A.	Creighton University	1967..Dermatology	{ James H. Bennett Howard I. Maibach

NEW MEMBERS

ACTIVE

Basford, Richard L.	Clever, James A.
Berman, Frederick H.	Mani, Carl J.
Casey, William J.	Spang, Roger S.

H. E. THELANDER, M.D.

IN DEFENSE OF THE BASIC SCIENCES

AFTER ALMOST a half century of pediatric practice, what is one's reaction to the medical school curriculum upon a return for a *second time around*? Science like technology has made tremendous advances in a relatively short period of time. A concern frequently voiced is, "How can all this new knowledge be learned in the old time period of four years?" This concern is unwarranted for several reasons. An important one is the student himself. He has grown up in the environment of these discoveries and consequently has acquired a great deal of the information from early childhood in school, from television, and from an abundant supply of educational books on almost any subject. The intelligent child is extremely well informed, if naive. The faculty frequently fails to appreciate this.

New discoveries often make it possible to delete old material. This is true not only for lectures and seminars but also, and maybe particularly, it is true for laboratory exercises. It seems a waste of time to go through the old basal metabolism test when in clinical practice it has been abandoned for newer methods. Even the prevalence of certain diseases has changed. Is a complicated animal test for diphtheria toxin appropriate when the modern student may never see a case of the disease?

Does this mean that the basic sciences can be abandoned in graduate education? On the contrary, for the continuous advancement of the health services, the basic sciences are even more important now than in the past.

The time allotted for these courses has been drastically cut over a period of years. The erosion began when the clinical departments requested more and more time for their subjects at the expense of basic training. It continued when the psychiatrists entered the field and pushed their instruction to an ever earlier period. Finally, the modern students, particularly the vocal activist groups with concern for the economic and social problems of the day, seem anxious to abandon all basic training for courses in the humanities and behavioral sciences.

Is there a happy medium? Do we still need physicians who know man—*homo sapiens*—his structure and function and behavior? Does structure in part determine behavior? The mechanic

is expected to know his machine and the veterinarian his animal. Is man alone going to be abandoned without anyone truly knowledgeable about him as a person?

Diseases change whereas man who has evolved over billions of years is not going to change much in a half century.

The end product of a fertilized human ovum like that of any seed depends on the quality of the inheritance, a favorable environment during

Dr. Thelander (ΑΩΑ, Minnesota, 1923) retired from pediatric practice in 1967. She is now Clinical Professor of Pediatrics emeritus at the University of California, and for a number of years was Chief of Pediatrics at the Children's Hospital in San Francisco. After retirement, Dr. Thelander "entered" the University of California Medical School at San Francisco in order to experience first-hand current approaches to medical education. She has kept a detailed journal of her observations, and this paper represents a report on one aspect thereof.

organogenesis, protection during fetal growth and subsequent delivery, and a milieu conducive to optimal development. It is difficult for a student taught Embryology in the twenties by Dr. Richard Scammon to accept preparation for the M.D. degree without knowledge of human development. Sometimes in the years after the twenties, embryology was pushed back to the premedical period and a recent survey of students shows a fair percentage have had no courses in it and it is often no longer a prerequisite for admission to medical school. It took two major tragedies, an epidemic of German Measles in Australia, and the Thalidomide disaster in Europe, to bring the fetus into focus again.

Teratogens may cause intra-uterine deaths and fetal abnormalities, but damage to the fetus is often far more extensive than the obvious changes indicate. When an organism is injured during its period of rapid growth and differentiation, the consequences are seldom confined to one tissue—the whole organism is apt to be involved. Indi-

viduals thus harmed are stunted in their total growth, and are more prone to infection and to degenerative changes of organs. The life span is shortened. Fetal injuries may be the antecedents to many diseases of a later period even in individuals who escape major evidence of anomalies.

The hazards of teratogens to the fetus must become a concern of all physicians. Regardless of his specialty, any doctor may be responsible for damage to the embryo; the internist who prescribes drugs, the surgeon who operates; the anesthesiologist who interferes with oxygen supply; the radiologist who may be called upon to x-ray the patient; and of course, the obstetrician who must appreciate that he is administering to two individuals or in the case of multiple births, three or more.

The quality of the inheritance of the child is transmitted equally by both parents. Heredity is an important element in the development of the individual. A field for investigation was opened up when Lejeune of France reported on the chromosome variation of Down's Syndrome. The importance of his discovery was immediately recognized by researchers the world over. New syndromes and variations due to translocations, mosaicisms and other chromosomal derangements are now glutting the literature. Families with inheritable diseases are seeking counsel regarding reproduction and all physicians must have a realistic knowledge of genetics. Again, this knowledge can be satisfactorily transmitted to all medical students only if it is presented in the Core curriculum.

The time allotted for Gross Anatomy in some instances has been reduced to 10 or 11 weeks or a total of 100 to 110 hours. Although learning-aids such as colored pictures, models, video tapes, films, stereos and predissected specimens have been added, these are no real substitutes for familiarity with the human body through dissection; attesting to this is the return of surgeons to the dissecting table. Utilization of surgical interns and residents in the dissecting room would be advantageous to both student and surgeon in training.

It is not unusual for students and even some physicians to cite psychiatry as the medical specialty in which the study of Anatomy is not very relevant, but a few patients diagnosed as psychotic who succumb to brain tumors will negate this assertion. It might be profitable to recall that

Leonardo da Vinci and Michelangelo resorted to robbing graves for corpses, in order that they, through dissection, might better portray the human form in art. In an era of organ transplants, kidney dialysis, cardiac surgery, and artificial pace makers, medical education cannot afford to neglect Anatomy. Instead it would be well to add some study of Anthropology to the courses. Work with handicapped children reveals marked variation from the normal in human design which is apparent in head size, minor abnormalities of ears and eyes, variations in dermoglyphics and so on. These types of variations also affect behavior. The 13-year-old boy who is 6 feet tall has environmental reactions different from his peers who are still little boys.

A two year old who is as tall as a four year old is confronted with different expectations than a little elfin fellow of the same age. The size of ears or the length of the nose may greatly influence behavior.

Modern technology especially electrophoresis has greatly enhanced our knowledge of the chemistry of the body and it is possible now to get a profile of an individual's enzymes, proteins, carbohydrates and lipids. The appearance of these in abnormal quantities, the absence of one, or a modified one, may be a clue to diagnosis before there are any visible changes. Although this type of work is done in the laboratory the physician needs a workable knowledge of it in order to utilize tests appropriately for diagnosis. The modern physician must be informed on the Biochemistry as well as the Anatomy of the body.

There is a tendency at present for a student to want to elect and pursue his own pathway toward a selected goal relying on counseling from members of the faculty. This methodology could become a sort of apprenticeship en masse. Apprenticeship training did not prove adequate originally and there is real danger that the new version likewise will prove ineffectual. The learning process like so many other human functions depends on early imprinting and repeated reinforcement. Learning cannot be once and for all. The present concern over teaching versus learning is largely a hang up in semantics. Information is acquired through all the senses, vision, hearing, smell, taste and touch. Some prefer reading to listening. The astute student, scholar or physician, trains himself to utilize all the inputs to gain information for storage and retrieval.

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LETTERS *to the Editor*

Medical Curricula: Relevance Then to Now, and Now to Now

To the Editor: Physicians who represent a variety of roles in medicine have been heard in the forum on Relevance in Medical Education,* but I am probably the first one to have taken the medical curriculum a second time around. I retired in 1967, after 40 years in the practice of pediatrics. During that time, I had taught students from both Stanford and University of California, San Francisco. Upon retirement, and with the permission of the Dean, I re-entered the University of California, San Francisco, School of Medicine as a freshman, and am now completing my junior year. My original training was at the University of Minnesota, where I received my Bachelor's, Master's, and Doctor of Medicine degrees (1922 to 1925). I interned at Children's Hospital in San Francisco.

Based on the above experience, I would design a medical curriculum something like this:

I. *Premedical training* would be reduced to two years, with required courses in biology, chemistry, physics, mathematics and Latin. Most students have been in school continuously since they were three to five years of age. They should have acquired the three R's and some knowledge of the humanities by the end of two years in col-

lege; if not, education at the lower levels should be upgraded. The brighter students should be able to finish high school in three years. Either after high school or after two years of college, premedical students should spend a year in gainful employment in a hospital or health center. This requirement could be waived for individuals who had worked during summer vacations.

II. *The basic sciences.* Two years should be allowed for these subjects; the time which has been eroded from the basic sciences by clinical courses should be restored. Physicians should know the structure and function of the body, in order to take good care of human beings. A mechanic is expected to know his machine and the veterinarian his animal. Why should we then accept physicians who do not know human anatomy, biochemistry or physiology?

In some schools, embryology has been deleted, even in premedicine. However, human development—including genetics, embryonic and fetal development, birth and early childhood influences—determines the end product, and injuries and abnormalities which arise during the period of rapid growth in the fetus or postnatally, may be the antecedents to many later ills.

Physicians and other health personnel are increasingly aware that medical students and house staff do not have a medical vocabulary; in one week I heard this from a pediatrician, an obstetrician, and a physiotherapist and earlier from several surgeons and a pathologist. In anatomy, where vocabulary should be learned, the course has been reduced to ten or twelve weeks or less. Students who have carried their childhood permissiveness into adulthood, at least in part, have been instrumental in bringing about this reduction in time and requirements. Instead of less, there should be more knowledge about the body;

*Relevance for today and tomorrow in medical education—A forum with a purpose. Calif Med 112: 1-11 Jan; 51-53 Feb; 51-55 Mar; 47-49 Apr; 68-69 May; 47-52 Jun 1970.

the children with PKU. It satisfies a basic need and is delicious. Generally speaking, I think the diet works out easier than anticipated.

We don't let DeLynn's diet restrict the family in any way. We eat out in restaurants, go camping, and eat dinner in friends' homes. There is always something on a restaurant menu that she can eat. When we go camping, we take our blender along and make her *Lofenalac* fresh every day.

I thought the biggest diet problems would occur when our daughter entered school. I knew children love to share food with each other and I assumed I would have to have her come home every day for lunch so she would stay strictly on her diet. I was wrong. Not long ago I entered DeLynn in a private school. She takes her own lunch to school and shares with her friends, but she will not accept any food from them that she is not allowed to eat at home. From the time she was a baby, she was learning for herself what she could and couldn't have to eat. She has it memorized. It really amazes me how strictly she adheres to her diet. I don't know what I've done to instill this in her, but I think it was because I *never* deviated from her diet list and gave her a forbidden food. (I'm sure it's harder on the mother than the child.) Food that she's never tasted she wouldn't touch with

a ten-foot pole. Recently we were at a big dinner party, and one of the women guests was giving the children pieces of cooked turkey. All the children but DeLynn took the meat. She told the woman it wasn't on her diet so she couldn't have any. This I learned later from the woman, not from DeLynn. This shows that a child will stay on the diet when out of the home if the proper foundation has been laid.

We have explained PKU to friends, relatives and neighbors countless times and I know their first emotion is sympathy and pity both for our daughter and for us. That was the first feeling we all have had about PKU. However, these feelings have changed drastically in the four years I have had my PKU daughter. They have been replaced by pride. We are really proud of our daughter. I think she is a living tribute to the doctors, dieticians and nurses who have devoted their time to solving this problem. Even though DeLynn has PKU, she is a very bright child and well liked by everyone (whether they know she has PKU or not). You cannot tell by seeing or knowing her that she has PKU. She is a beautiful and loving child and I am so thankful that PKU was discovered in time to allow her to be this way. We have nothing but good things to look forward to for discoveries are being made every day.

"DO-IT-YOURSELF" RENAL FAILURE

"It seems that the vast majority of patients we've been seeing with carbon tetrachloride acute renal failure have been so-called 'do-it-yourselfers,' individuals who during the wintertime are cleaning neckties or removing the finish of some furniture or maybe cleaning an outboard motor. They usually do this in a warm basement in the evening with the windows closed—there is very little ventilation. At the same time, they may like to enjoy a beer or two or three; and the alcohol in the beer is a potentiating agent."

—Panel Discussion on Drug-Induced Kidney Disease

Extracted from *Audio-Digest General Practice*, Vol. 17, No. 20, in the Audio-Digest Foundation's subscription series of tape-recorded programs.

genetic variations are almost always imprinted on the anatomy. To the usual course in gross anatomy, some instruction should be added in anthropology, anthropometry and dermatoglyphics, for the astute physician gets many of his clues from simple inspection. Recall that Leonardo da Vinci and Michelangelo resorted to grave-robbing in order to dissect and thereby better portray, in art, the form and function of the body. Should the modern physician be content with less knowledge of the body?

With such new techniques as electrophoresis, it is possible to have a complete pattern of an individual's enzymes, proteins, lipids and carbohydrates. Instead of complicating the study of medicine, these techniques simplify and elucidate the subjects of chemistry, physiology and endocrinology. In contrast to the anatomical and chemical studies, microbiology and pharmacology, which deal with external influences on the body, are more subject to change. Infectious diseases have been greatly modified, and many of them are practically eliminated by the discoveries in immunization and specific drug therapy, but it remains important to understand the basic principles of immunity, resistance, susceptibility and epidemiology. Practicing physicians must continue to be students always, if they are to keep abreast of advancements in knowledge.

The introduction of such courses as community medicine and psychiatric interviews in the first and second years, is largely a result of student pressure for relevance. If, as suggested earlier, students were required to have a year of employment in a medical center before starting their clinical training, they might appreciate the relevance of basic courses without such pacifiers so early.

III. *Clinical (junior) year* would be devoted to preparation for active participation in the practice of medicine under supervision, the most important part of which is patient interviewing and history taking. Although patient history is emphasized repeatedly in classes, its performance needs to be upgraded considerably. Everything from genetics to the social milieu is important in the understanding of the patient's medical problem, and history should include all of these phases. The classical "family history" should include not only the social situation but also the ethnic background of both parents, fertility, longevity, and causes and ages of individ-

ual deaths. This requires good rapport with the patient, and is rarely established in a first interview. If the patient's interest is aroused and the pertinence of the questioning is clarified, a more meaningful history can be obtained. The interviewer may even ask that the patient think over some of the questions and answer them at another visit. An outline is helpful for the beginner, but should be inconspicuous. The technique of physical examination is acquired at this stage of training, with sensitivity to the patient's total appearance, his expression and mood, as well as any obvious stigmata, followed by the detailed examination.

In addition to the history and the physical examination, laboratory tests should be learned wisely. There should be an opportunity for daily study of the patient, and discussion of findings with faculty or consultants. Since it is impossible to cover disease categories of all the systems with the clinical material available, there should be some time devoted to an organized approach to differential diagnosis, system by system. This information can be transmitted in seminars, at bedside rounds, grand rounds, and by individual assignments, as well as in lectures.

IV. *The fourth year* would be spent on rotating clerkships, with adequate access to senior faculty or consultants, covering not only the major specialties, but also subspecialties. Since the major clinical teaching is on the adult, and since this may be the last opportunity to reach all students regardless of future specialization, two areas should be covered: 1) the basic differences between the adult and the child—physically, chemically and emotionally; 2) the pregnant woman, since any physician—regardless of his specialty—may be called upon to administer to a woman *and a fetus*. If the numbers of infants born with defects are to be reduced, concern for the unborn must be shared by all physicians.

V. *The intern year* could be omitted or elected on a voluntary basis, and would reduce the course to an average of six years. The pursuit of further training would lead the student into his field of choice—general practice, internal medicine, surgery, obstetrics, pediatrics or other specialty or sub-specialty. Once in practice, however, continuing education is essential for all physicians.

HULDA THELANDER, M.D.
Tiburon

Population Control: Is There Another Side to the Coin?

To the Editor: We Americans, as a nation, tend to be thinkers and questioners. Yet we often demonstrate an ability to accept mere shibboleths and slogans as truth, often with very little critical appraisal: "Sleep with your windows open"—"Milk is a perfect food"—"Vitamins are good for you"—"Early to bed, early to rise"—etcetera.

A current sophistry which seems to raise very little debate is the concept that limitation of *our* population is necessary for our national survival. From Secretary Robert Finch and Patrick Moynihan on the Cabinet level to the barefoot coed on the Berkeley campus whose large No. 1 button refers to the number of her intended offspring, no one seems to argue the point that we are at a national population zenith and that slowdown in growth, not to mention decrease, is a mandatory national priority.

Like the policeman who finds himself in the position of having to enforce all laws whether he agrees with them or not, we doctors will inevitably be the technicians of this population control and it is high time we gave some thought to what we are racing into.

The fear that world population would some day outstrip the food supply began 200 years ago with the theories of Thomas Malthus. India offers the classic example of a population explosion run wild. Millions who inhabit the large cities of that country have no regular home—sleep, sicken and die by the thousands in the streets from disease and malnutrition. I am sure that similar catastrophe warps the life in parts of the Orient and Africa and perhaps even of South America. I would be among the first to agree with Malthus that in certain parts of the world where soaring birth rates erode the national economy, drastic attempts at population control *are* necessary for national survival.

But what does this have to do with limiting the population of the United States? Anyone who has driven an automobile across this country must be aware of its vast unpopulated areas—of its millions of vacant, arable acres. We are not only feeding ourselves but are hard put to it to find moral methods of disposing of our abundance. Certainly it cannot yet be fear of starvation that should force us to limit our national growth.

Pollution is the current scare headline! The standard method of disposing of waste materials in all large European cities even when the national populations were much smaller was to dump the chamber pot in the street and pray for rain. Our burgeoning population has improved vastly on that method. Pollution of our air and waters has not been a by-product of our population but represents an unthinking extravagance of waste. Non-rusting aluminum beer cans littering our beaches and our parks would have replaced other corroding metals; detergents would have replaced soaps; plastics would have replaced wood, whether we limited our population or not. Pollution is spawned by technology and will respond to an improved technology.

Over-crowding of the cities has been a pressure for limiting our national growth but large cities have been "over-crowded" since Dickens' London, or Nero's Rome, or David's Jerusalem. Technical improvement, better city planning, better methods of distribution seem to me to be the only answer to crowded cities which will continue to be crowded for some, whether they contain a thousand people or ten million!

Our founding fathers might have yielded to the same pressures in 1790 when Philadelphia and New York and Boston were the big over-populated cities. Who, after all, would want to live in the wilderness beyond the Mississippi?

Perhaps what worries me most about premature designs to limit our growth is the threat that it poses to our survival as a nation. With our traditional expertise *we here* can probably develop a sure, safe method of controlling birth rates in the very near future. Politically, by reversing the tax incentives for larger families (instead of a tax deduction for each child, say, for example, a surtax were imposed) we might be able to bring about a sharp limitation of our population in one or two generations! But who would get the word to Russia or China whose vast populations already outnumber us by 50 or 100 to 1. The hordes at our gates might literally overflow us despite our protective oceans. Not least responsible for the fall of Rome was the artificial limitation of her birth rate and the widespread practice of infanticide with the subsequent heavy dependence on foreign mercenary troops.

As I grow older and perhaps more philosophic, I realize more acutely that among man's most

Letter to the Editor

As a full-time practicing physician interested in medical education I had certain reactions to Dr. Snoke's article in the March issue of the *Journal* that I wish to express. I agree with Dr. Snoke that the tripod of education, research, and service is unbalanced. But need it be so?

Should not the major function of a medical school be to train the basic doctor? Does a medical school need to assume responsibility for all medical education, for all research, and for all health services? Is it not unrealistic to think that a medical school should be that omniscient?

Why not start the balancing at the undergraduate level by arranging teaching services and research in the right proportions to train adequately the basic doctor? To meet the health needs of the community a start can be made by asking for a definition of the roles of the following: (1) the medical school; (2) the practicing physicians and their professional societies; (3) hospitals and related institutions, not only those staffed by university professors; (4) other health agencies such as public health, dentistry, and nursing; (5) all the paramedical sciences. The focus should be on the patients and their health needs and the organization of the community to meet these needs. At present the above the agencies and individuals are suffering from myopia, astigmatism, and strabismus. Let us correct our vision and our focus.

Medical education is a lifelong learning, but the major problems confronting the practitioner who has been in the field for 20 or 30 years are very different from those of the medical student and are not readily solved by the youthful academic professor who may be a good research man but usually has had little preparation for either teaching or lecturing and even less experience in the rough and tumble field of the practitioner. On the other hand, this young protégé may cast a ray of light on one little facet of the senior man's problem. Let him limit himself to that facet and let other confrères more experienced in practice contribute from their source of knowledge.

Continued education, even at the house staff level, should recognize that this doctor also has had his basic training (or should have had it). He should now be a participant in the service team, education and research becoming secondary. There is an optimum time to assume responsibility. The medical student is adult. He has had a college education. If he is kept in a dependent position not only during his 4 years of basic training but also during his internship and residency he stands in real danger of being warped in assuming full responsibility as a doctor. There is a tendency at present in medical education to dabble with "family service" even at the freshman level and, I am afraid, often at the expense of basic training. This service is introduced at a time when the student is unprepared and uncomfortable in such a role and consequently does not benefit greatly. At the resident level, on the other hand, great stress is placed on courses in basic science. Practicing physicians are called upon to expand educational programs for residents in all hospitals, until more thought is given to courses than to patients. The resident needs to learn that he must

Present form of practice		No.
Number in general practice		162 (6)*
" " specialist clinical practice		100 (12)*
" " Hospital practice (full-time)		31 (3)*
" " University and Research		9
" " Preventive Medicine		3 (1)*
Miscellaneous		5
Total:		310

Place of Practice

Queensland—capital city, 162 (12)*; rest of Queensland, 82; rest of Australia and New Zealand, 46 (7)*; overseas, 20 (3).*

Present method of remuneration

Salaried, 62 (8)*; Self-employed, 248 (14)*.

* These figures in parentheses represent the number of women graduates included in the total.

SUMMARY

1. The careers chosen by the first 10 years (1940-49) of medical graduates from the University of Queensland were investigated.
2. During these 10 years 331 graduated and, by 1958, 310 were still practicing.
3. Approximately 40 per cent have or probably will have obtained some form of additional postgraduate qualification.
4. Of those still in practice 52 per cent were in general practice, 42 per cent in clinical specialist practice and hospital practice, and 4 per cent in preventive medicine, research, and University teaching.
5. Approximately 85 per cent are or will be self-employed.

depend to a great extent on his own initiative and curiosity to keep abreast of the expanding knowledge in the field of medicine. The present upside-down tendency in medical education has produced a house doctor who comes to an institution interested in the pay he may get and in the organized lectures that he can attend but with very little concern for the patient and no great feeling of responsibility toward the institution that hired him.

I cannot agree with the author that the best medical services are given the patients in university hospitals, I will agree that the maximum diagnostic procedures for a given disease may be administered; but total consideration for the patient's present, past, and future is very often better served in the nonuniversity hospital and usually with an accurate diagnosis. The medical school should recognize that it has a large supporting cast in the field of health and that a better total performance can be put out if each agency and individual plays his role optimally.

H. E. THELANDER, M.D.

*Chief, Department of Pediatrics
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ABSTRACTS FROM THE WORLD OF MEDICAL EDUCATION

ANGELA SANCHEZ-BARBUDO, PH.D.
Abstract Editor

Acceptance of Psychiatry by the Medical Student. DENIS HILL, D.P.M. *British Medical Journal*, pp. 917-918 (March 26), 1960.

The modern medical student, though little burdened by philosophy, shares the prejudices of his cultural setting and dislikes doubt and uncertainty. His attitudes toward psychiatry—too often found to be either uncritical acceptance or uncompromising rejection—depend to a large extent on his childhood, school, and preclinical training, and are liable to reinforcement by his clinical experience and first contacts with psychiatry itself. Numerous factors are invoked to explain the medical student's evident difficulty to approach this subject with the same objectivity which he can give to other subjects. Among these the following are stressed as undoubtedly playing a significant role: inadequate teaching of psychology and sociology in the preclinical period; the small place given to psychiatry in the clinical curriculum; the hostility toward psychiatry often found in admired clinical teachers with whose attitudes students tend to identify; an excessive emphasis on psychopathology and psychological determinism liable to arouse anxiety in the student himself, and the fact that there is as yet no body relevant to etiology and treatment which is generally accepted. The author (from the Institute of Psychiatry, London) suggests, however, that the basic reasons lie deeper and are, indeed, related to the "explanatory hypotheses which each of us must hold about the nature of man and about his behavior."

The student, he points out, is offered an immense array of technical knowledge, but what he needs above all is a satisfactory *explanatory hypothesis* about human behavior into which he may fit as best he can all the data of human disease and disorder which he will encounter in his patients in everyday life. Yet, while the great success of the anatomico-pathological concept of disease has abolished *teleological* explanations for biological events, it has never been possible, the author contends, to avoid the concept of purpose when we think of human behavior. Therefore, since the phenomena of mind and mental illness cannot as yet be explained within the system of physical determinism on which medicine as a whole rests, the student is offered rather late in his training a variety of other "explanatory hypotheses" which are foreign to his thinking and his conceptions of the nature of disease, because in the main they are based on psychological or cultural determinism, both including *teleological* ways of thinking. Furthermore, while psychiatry requires the vision of the patient as an individual, this is rarely the case in medical training (despite much lip service in favor of "treating the patient as a whole"), because the teachers are themselves specialists in the different branches of medicine and even during the clinical years the students' attention is constantly directed not to the patient himself but to parts of him only. As to the question of how to remedy this situation, the author admits that there is no easy answer. A reformed curriculum, including a larger rep-

LETTERS TO THE EDITOR

TO THE EDITOR:

The article "Are Medical Schools Obsolete?" in the last issue prompted this letter. Last year when making a study of Day Care Centers and Nursery Schools, I was impressed by the eagerness and enthusiasm with which the 4 and 5 year olds approached the learning situation. The teachers said there were more tears on their departure than on their arrival. Our experience at the nursery school for the handicapped was similar. This spirit of the very young was in great contrast to the boredom and fatigue that I saw in sessions at the Medical School.* Although in part, methodology might account for the difference, and higher education could profitably copy and learn from the techniques used with the young, what impressed me most was the long span of years, from 4 all the way to 25 in the case of professional education, of uninterrupted schooling that we tend to enforce on many of our young. It seems to me that the students, like the faculty, should be entitled to a sabbatical or two during those years.

For those not academically inclined, this break should come between the ages of 14 and 18 years, and should be spent at work, perhaps as an apprentice in one or another trade. This plan would give the youth a chance to test his interest and ability in this kind of ~~return, if he so desired, either to a trade school or to~~ ^{work} ~~return, if he so desired, either to a trade school or to~~ high school without being stigmatized as a "drop-out." Those students interested in the further pursuit of education, should have another "sabbatical" later, either after high school or during the college years. For those raised in affluence, the time should preferably be spent at manual labor and in getting acquainted with the

poor. This might be done through the Peace Corps or Vista. Those interested in the Health Sciences should spend some time with the sick, working in a hospital, a clinic or Public Health Department. I think it is mandatory that we consider seriously the need for a sabbatical year for students as well as professors.

Sincerely,
H. E. THELANDER, M.D.
ΑΩΑ Minnesota, 1923

* *Editor's note:* After her retirement from a distinguished career in Pediatrics, Dr. Thelander "entered" the University of California Medical School in San Francisco and audited the courses taken by the medical school class.

TO THE EDITOR:

Thank you for publishing two of Dale Beernik's poems in the review of his volume of poetry in the October, 1971 issue of THE PHAROS. I think I would call them "Great Poetry" but possibly only an M.D. would realize it right off. It would be appreciated if you were to insert one or two per issue.

I amuse myself trying to write in the form of the Japanese haiku. I've tried to say what Beernik has said but in 17 syllables. It goes:

I found Dignity in Life
Now Grant me Dignity
in the Dying

Sincerely,
H. D. BRUNER, M.D.
ΑΩΑ University of Louisville, 1933

The Physician as a Social Activist

(Continued from page 19)

demoralization, disorganization and resignation will not move us down that road.

This group is now coming into leadership. For a variety of reasons, those physicians educated before World War II have a limited ability to provide the leadership for social change in medicine. We must therefore move aside and make room for those of you who are flexible, resourceful, and willing to depart from the establishment in dealing with social problems.

Mutant CPC's

(Continued from page 29)

the situation in terms of the alternative judgments which need to be considered, together with their implications, consequences, and the value priorities which

are implicit in each. Social and ethical standards differ, legitimately. The differences are even vital to our continuing intellectual life (at least, if pluralism has any validity), and in many cases they are not only typical but essential in a democracy. One would not try to grind out "answers" to any of the questions posed by the suspicion that our civilization is facing survival problems. On the other hand, one can try to bring the sciences and humanities together somehow to reduce the time wasted on false questions and to build an agenda of questions that truly matter. It is entirely possible that one can expose some differences as an outcome of misunderstanding, while showing that other differences are actually creative assets.

THOMAS H. HUNTER, M.D.
Professor of Medicine & of Science

JOSEPH FLETCHER, B.D.
Visiting Professor of Medical Ethics
University of Virginia

MUTANT CPC's

The question we should like to ask is, "Would it be possible to design some exercises analogous to the CPC in which the focus would be shifted to an analysis of not so much 'What?' and 'How?' but 'Why?'" In other words, can one approach problems relating to values, ethical judgments, benefits and costs to individuals and society in some way which will have as many of the positive features of the CPC as possible? Could one substitute the ethicist for the pathologist, using somewhat different kinds of "cases" and protocols? Or could a lawyer or a sociologist or possibly a public health official be brought into the role of discussant?

The CPC has become a time-honored institution in most medical schools, and most will agree that it has been a useful exercise and an effective teaching device. It provides an opportunity for a group of wide diversity: students, house officers, faculty, nurses, social workers and, from time to time, interested people from other disciplines to view in panorama the course of a patient's fatal illness from its inception through the autopsy findings. One of the elements entering into its success has been the focus on a single completed episode in life and death, often with some of the elements of a "whodunit," culminating perhaps in a surprise *dénouement* on the part of the pathologist. Controversy and differing interpretations by competing clinicians add spice. Wide participation in preliminary discussion by various groups of students, each asked to commit himself, takes place; then everyone has an opportunity to hear the participants think out loud and develop reasons for their judgments.

Mistakes in management are brought out in the open and diagnostic errors as well as *coups* get their share of the limelight. As a result, the old adage about learning from one's mistakes is put to use, and it seems to work—certainly for the discussants and probably also for a good many spectators. Live controversy, together with a specific case upon which it is focused, is probably the most important factor in capturing students' attention and interest. They love to see the Dean out on a limb, and they probably learn more from it than from just reading about a disease in a textbook.

The questions asked in the classical CPC center around:

a) *What* was probably wrong with the patient? and *how* did it come about?

b) *What* information available before death was important in arriving at a diagnosis? and *how* could one have acquired better or more decisive information?

c) In the light of diagnostic probabilities, *how* did the management influence the outcome?

d) What do the autopsy findings teach us about A, B and C?

The focus once again is *what* was the matter with the patient and *how* was he managed.

Up to this time, most attempts to arouse student interest in the social aspects of disease and in the underlying ethical and/or moral assumptions upon which most of medical practice is based have fallen rather flat. Courses in social medicine, environmental health, medicine and society, and so forth have often been relegated to second or third priority in the curriculum, frequently as strictly voluntary sessions held in evening hours, with the result that attendance is usually poor and student interest is minimal.

On the other hand, there seems to be general agreement that the current crop of medical students has a greatly increased social awareness. Many of them want more discussion of social and ethical issues and seem to be strongly motivated toward concern for the deprived elements of society even to the point of activism. With this in mind, one wonders whether a series of socio-medical conferences, or SMC's, at regular intervals (monthly) might not be successful. Prime time (mid-week, 12:00 noon or 1:00 p.m.) would be important; the protocol of the case or specific situation to be discussed would be circulated in advance; and the discussant would be a senior member of the medical faculty. Topics or cases to be chosen should be:

a) Real life situations that could be analyzed in considerable detail.

b) Examples of problems that pose basic questions of value judgments as to *why*, to what ends, and with what consequences for individuals and society certain things are done or not done, and what alternatives might be entertained.

Some examples might be situations involving: abortion and sterilization, determination of cerebral death and termination of life-sustaining measures, when to resuscitate, organ donation, helping patients who want to be allowed to die, employment problems of an epileptic, a house-officer using marijuana, the right to medical care, triage in a disaster or shortage situation, treatment involving massive costs or scarce resources, psychiatric problems and the law, and so forth.

Finally, it must be realized that, unlike the CPC, the SMC will not come up with definitive answers. Rather one can only expect a careful and rational analysis of

(Continued on page 30)

If the medical schools are "not available," then the beginning of an alternative is to be found during "off-hours," directly in the community. This, of course, has already happened, and is still happening. Local free evening clinics—primarily poor white and poor black—have been set up in communities surrounding most medical schools. These clinics are usually staffed by medical student volunteers, nursing student volunteers, and various physicians from both medical school faculties and private (or group) practice. But why not broaden the commitment? Why not broadly involve the medical schools, for openers. (Besides, Dr. Coye is correct when he says that medical students will soon realize the immense potential power which they hold; as a result, the medical schools will probably eventually become involved either with *or without* initial faculty approval.) But, as they say nobody likes a confrontation, and I think there is probably no great eschatological necessity of having one.

Why not start working from the bottom up, since "the top"—the AMA—has shown what many physicians and students think is chronic rear-view-mirror thinking? If the concern is evolution, there already exists a (fragmented) core of concern—why not evolve from this? The answer is that some (but not enough) medical students, and some (but not enough) physicians are doing just that. If one wants to be "Worthy to Serve the Suffering," let him start right there—by serving the suffering. Initially, at least, medical "activism" is just that simple. But it will soon cease to remain that simple, unless rather far-reaching, visible changes occur in organized American medicine. The necessity for change in this area is compelling. And the basic goals—adequate health care in every community, and rapid changes to insure it—are simply not negotiable.

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To the Editor:

The last issue of THE PHAROS prompts these comments. When I retired from pediatric practice in 1967, I asked the Dean of The University of California Medical Center in San Francisco for permission to repeat the medical course. This had been a long-time desire and although I did it mostly for fun, I did want to look also at modern medical education from the student's perspective. I even discovered some of my former patients among the students.

My anomalous position has given me a chance

not only to get the student's point of view, but also to recognize some of the problems of the faculty and the administration.

The modern students, as has been noted often before, have grown up during a period of affluence, permissiveness and self-confidence. They are a part of the post-war baby boom—when having babies became a status symbol. Parents revelled in new-found wealth. They lavished gifts, clothes, and pleasures on their youngsters—and often on themselves—and many children had more personal contact with a governess or maid than with mother. If, as youngsters, they had had more mudpies and finger paint and fewer confrontations with barbers at age two, maybe they would not look as disreputable now.

This generation of students grew up *with* the scientific and technological explosion. They were exposed to the advances along with their parents and teachers. They take it for granted. They are bored by the emphasis that an older generation places on it. "What's wonderful about it?" is a frequent comment. How can they experience the same inner satisfaction over the recovery of a case of meningitis that we do who in the past had to inform a parent "This is a fatal disease."

Although smart and confident, the modern students often are naive. Life has been soft for them; they have not had the opportunity to test their mettle. Most of them have not known want. They have had no major frustrations. They have not learned restraint. Their idealism and social concern is commendable. Their hostility with its lack of discrimination toward the "Establishment" is not.

After World War II, the Committee on Child Health Services of the Academy of Pediatrics (of which I was a member) made a comprehensive study of health services and medical education in the U.S.A. At the conclusion of the study, the greatest concern of the committee members was the lack of adequate financial support for medical education. The recommendation was made, therefore, that Federal funds be sought to meet the need. This suggestion was appalling to and rejected by the medical profession. Since then, as we all know, a great deal of money has been funneled into medical schools as research grants from Federal sources such as N.I.H. In a relatively short period of time, medical students were complaining that faculty members were not interested in teaching. Their only interest was research; teaching was a bore; students were a necessary evil. It has been difficult to overcome this reputation. The present faculty almost to a man are eager and able teachers. It is very difficult to lecture to a hostile audience. The era of research is not to be totally condemned. In the

health sciences, the advances have been phenomenal. Most of the infectious diseases have been eliminated. The present students may never see diphtheria, pertussis, measles, mumps, polio, and typhoid. Tuberculosis, pneumonia, scarlet fever, meningitis and many other killers are largely controlled. Except for these advances, undoubtedly a fair number of the student body would have succumbed in early childhood.

Community changes contributing to present problems arose subtly. In the old tradition prior to World War II, physicians were concerned with the health of the populace. Free clinics were conducted in most hospitals and medical services rendered on a volunteer basis. Many of the hospitals had a visiting nurse as part of its staff and other relied on the V.N.A. (Visiting Nurses Association) to see patients at home. The migrant fruit pickers and field workers were served by a mobile Public Health Clinic in a trailer which plied between Fresno and Sacramento. I spent one of my vacations on it.

The bombing of our fleet a Pearl Harbor changed life in the U.S.A. Ship building on the West Coast Harbors almost doubled the population in a very short time. Temporary housing was put up in the areas. The problems connected with schools and health were staggering. Even so, California was so attractive that when the war was over, no one left. The temporary houses remained occupied. The baby boom was not limited to the native sons and daughters. In order to feed the increased population, farmers resorted to technical and more efficient harvesting of

crops than migrant pickers afforded. The Mexican workers did not return to their homeland either and did nothing to prevent the baby boom: hence, increasing social and medical problems that health personnel have been unable to cope with adequately.

The administration at the University of California Medical Center in San Francisco has shown foresight and patience. They sent out recruiting scouts before the students demanded it. They invited students to participate on committees including the admissions committee; they conducted a weekly "gripe" session during a noon hour. They set up tutoring facilities for those minority members accepted who might be deficient in certain subjects. The student welfare office has been available at all times to answer questions and help solve problems. Scholarships and loans are available. The students in general have responded favorably.

What of the future? The social concern of the present student population is laudable. History records an era of renaissance in art, a period of reformation in the church, a scientific and technological explosion. It is time for a universal social concern. Breasted in his book *The Dawn of Conscience*, attributes this evolution in man to abundance in the fertile valley of the Nile. When people had plenty, and did not need to struggle for mere existence, they looked to the needs of their fellow men. Are we possibly at the dawn of a new era? A social revolution. Much depends on the youth of today.

H. E. THELANDER, M.D.

INSTRUCTIONS TO CONTRIBUTORS

The Editor will be delighted to receive manuscripts dealing with broad aspects of medicine and medical education for review. The papers should be double-spaced and submitted in duplicate. In general, papers submitted for publication will be reviewed by two members of the Editorial Board and every attempt will be made to complete the review promptly.

In the case of papers accepted for publication, authors will be supplied free of charge with 100 reprints; additional reprints at modest charge may be purchased if desired. At the time galley proofs are submitted to authors, an appropriate form for ordering reprints will be included.

All correspondence relative to THE PHAROS and its contents should be directed to the Editor. Change of address should be sent to Mr. Richard S. Slottow, Assistant Secretary, Alpha Omega Alpha, 1725 West Harrison St., Chicago, Illinois 60612.

LETTER TO THE EDITOR

To the Editor,

Like Dr. Haggerty, I too have been concerned about "The Boundaries of Health Care." The gap, to use that somewhat tired word, between scientific advancement in medicine and health information provided the populace, is horrendous. I recently heard a young mother state with considerable anger that when she was faced with marriage and motherhood, she realized that throughout her grade school, high school and college education, she had had *no* instruction in health. She knew nothing about nutrition, the prevention of disease, safety or human development.

A graduate student in education chose for his Masters thesis a study of health education in the public schools. He told me that he was amazed to find that in most schools there was no health education at all. In others there were a few sporadic lectures or discussions on topics such as venereal disease, the Pill, or, as noted recently in the news, on homosexuality.

A populace with no realistic knowledge about matters of health is indeed vulnerable to exploitation. The advertising of over-the-counter drugs on all the news media is but one example. The "talk shows" promote food fadism and often play up sexuality in a distorted way. Reporters, looking for sensational news, report on such scientific subjects as genetic engineering and artificial insemination without due regard to the facts. It is not surprising that many parents are frightened to the point where they view health education as a detrimental subject and oppose its introduction in the school system.

Nonetheless there are some hopeful signs: although medical students have always been idealistic, the students in the sixties added activism to their idealism. It is true that some were so carried away by their enthusiasm for social change that they began to view such important basic sciences as anatomy, physiology and biochemistry as irrelevant. In retrospect, it is evident that the concern for social change, coupled with the stability of the old guard, has brought about a change in medical education, a change so great that future medical historians may well compare the period to that of the

Flexner era. In the new medical school curricula, one commonly finds courses on community medicine, human development and abnormalities of organogenesis, human sexuality, and techniques for patient interviews. Gross anatomy has been improved by the addition of surface anatomy, radiologic instruction and the use of much better audio-visual material. Evolution in medical education continues.

What is needed now is better health education for the public. The logical place to start would be in the teachers colleges or in the university courses that are a requisite to teaching certificates. Until we have teachers who are knowledgeable we cannot hope to provide a suitable curriculum for students in the elementary and secondary schools. As long ago as 1940, the late distinguished physiologist, Anton J. Carlson of the University of Chicago, made the following statement to a medical school graduating class: "We are slowly realizing that at all stages of education the traditional '3-Rs' must be rounded out with an 'H,' which stands not for hallelujah, but for health." Although progress is slow we must continue to try to achieve it.

A required health course for teachers should include structure and function of the human body; the availability of excellent audio-visual material makes it possible to teach human anatomy at various levels rather than attempting to demonstrate anatomy on frogs or other lower species. Instruction should also include nutrition, accident prevention, the prevention of infections (particularly venereal disease), the use and abuse of drugs, genetics, human development, reproduction with emphasis on the optimum age for pregnancy, the responsibility assumed in child rearing, and the joy and mystery of human development.

With a knowledgeable populace and the cooperation of those in the health sciences, the boundaries of health care might be expanded and actually contribute to solving some of our difficult social problems.

Sincerely yours,
H. E. THELANDER, M.D.
ANA, Minnesota, 1923

of bringing Western medicine to China as the medium for the introduction of inductive reasoning.

Harvard and Eliot sparked the reform of medical education in the United States, which reached its culmination in the founding of Johns Hopkins more than two decades later. Eliot had a harder road than his close friend Gilman at Hopkins—Eliot had to take on an entrenched traditional and powerful faculty. Nor did he have the wealth of The Rockefeller Foundation behind him—Abraham Flexner had his love affair with Hopkins and not Harvard. Indeed, one of Eliot's principal problems in achieving his reforms was the precarious financial state of the medical school.

Why was Eliot so committed to the reform of medical education? Was it the birthmark which covered a significant area of the right side of his face, the death of his first wife, the illness and loss of two of his children, the winter of teaching in the medical school, or the great advances in medicine between 1860-70—perhaps our most shining decade—that influenced him? Was it that, as an astute educator, he recognized the lowly state of medical education and decided to do something about it? In any case, we benefitted enormously from President Charles W. Eliot's singular dedication to the advancement of medical education—a dedication which deserves periodic examination and applause.

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REPLACEMENT INSIGNIA

Due to the rapidly escalating gold market and the supplier's charges to the Society, it becomes mandatory that we again adjust upwards the price of AΩA replacement insignia. Therefore, the replacement cost to members for the standard AΩA key has advanced to \$12.50, and for the miniature key to \$13.50. Canadian replacements of either size increase to \$13.00.

The price of the certificate remains at \$3.00.

Orders for replacements should be sent, as before, to the national office: Alpha Omega Alpha Honor Medical Society, 1725 West Harrison Street, Chicago, Illinois 60612, accompanied by remittance and data as to Chapter and year of election.

letters

Letters for publication should be no longer than 300 words, must be signed, and should be addressed to: Editor, American Medical News, 535 N. Dearborn, Chicago, Ill. 60610. AMN reserves the right to edit letters for publication.

Teaching the public about health

□ I would like to congratulate you on the tone of your editorial, "Teaching Americans to be healthier," (AMN, Dec. 25, 1972). Americans should be taught at an early age of the threats to good health made by too much smoking and drinking, poor nutrition, and insufficient exercise. They should become aware of the difficulties of obtaining a well-balanced diet in today's supermarkets because of the great amount of food processing, the addition of some 3,000 chemical additives, the anti-oxidants and preservatives, and residual toxic sprays and fertilizers, etc.

However, I do not believe that this educational program is really the responsibility of the medical profession, since doctors obtain their spiritual and financial rewards by healing the sick. Practicing medicine is far more satisfying to the individual physician than working in an impersonal way to keep people healthier.

It is my opinion that there is a difference between preventive medicine, as done by those in public health, and health pro-

motion. One keeps people from becoming ill, while the other makes them really healthy. Therefore, we may need new professionals who might be called "health promoters" and who would be trained in this field, but not expected to diagnose and treat disease. Their course of study would be much shorter than the years required for an MD degree, and they could be incorporated into our schools and colleges as part of the physical education programs for the young. If this were done, we might eventually have a greater degree of health and less sickness in the United States, with consequently less trouble coping with the flood of patients you predicted in the future. Paramedics are gaining favor; why not health promoters?

H. CURTIS WOOD, MD
Fort Washington, Pa.

□ Health education is a very important subject and grossly neglected.

During the past year, I reviewed the causes and possible causes of birth de-

fects and was forced to the conclusion that no progress could be made without a populace better informed on health matters, such as nutrition, genetics, safety, infections, drugs, toxins, etc., as well as structure and function of the body, reproduction, and human development.

Although various methods of education might be used, it seems to me the eventual logical place to give it is in the schools to all children. At present, for various reasons, this is opposed by a number of parents; one good reason being that there are very few, if any, teachers prepared to give such a course. Why not start, therefore, by making health education a required course in all colleges and universities for students majoring in education? If this were done, a great deal of information would rub off on the students, whether or not it was in the curriculum. Let's make this a part of our effort to improve health education.

H. E. THELANDER, MD
Tiburon, Calif.

washington's week

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struggle is popular

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Sen. Kennedy outlines plans for campaign to enact NHI

Sen. Edward Kennedy (D., Mass.) and other supporters of the labor-backed health security program said they will conduct a "nationwide grass-roots effort" to enlist public support for the sweeping national health insurance plan.

According to the Committee for National Health Insurance, "The effort is

designed to establish citizen lobbies in every state and major city," which "will attempt to influence Congress to pass the proposed plan" to finance through federal funds almost all health care costs of everyone at a cost of \$80 billion or more.

The so-called grass-roots campaign actually has been under way for several years, and is largely an educational endeavor carried on by labor unions at the state and local level. However, the committee claimed more than 40 major national organizations, including church groups and health and civil rights agencies, as well as labor organizations, are participating.

Sen. Kennedy told the news conference that he believes this Congress "will pass a comprehensive program of national health insurance that embodies the basic principles of the health security program."

He conceded, under questioning, that he has not reached any agreement with House Ways and Means Committee Chairman Wilbur Mills on the shape of a national health bill. Sen. Kennedy declared that he had no reason to believe that Rep. Mills, who is expected to play the most influential Congressional role

Hospital told to post bond

A Philadelphia hospital, owned by its staff physicians, has been ordered to post \$225,000 bond to obtain future payments from Blue Cross.

The amount was set by Common Pleas Judge James R. Cavanaugh as an amendment to a previous order in January, which set bond for Doctor's Hospital at \$50,000.

Blue Cross cut off payments to the hospital last December, on grounds that the hospital is obsolete, does not meet safety standards, and offers services in excess of community needs.

AMERICAN MEDICAL

news

PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION

MARVIN L. ROWLANDS, JR. / EDITOR

February 6, 1973

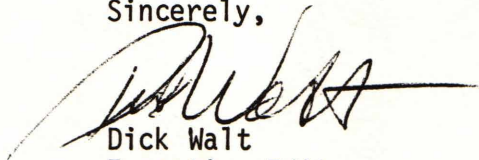
H.E. Thelander, M.D.
40 Leafinth Place
Tiburon, CA 94920

Dear Dr. Thelander:

Your letter has been shared with the readers of American Medical News. A copy of the page which included your letter is enclosed.

We appreciate your interest in American Medical News.

Sincerely,



Dick Walt
Executive Editor

DKW:bjs

enclosure



ALPHA
OMEGA
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HONOR MEDICAL SOCIETY

ROBERT J. GLASER, M.D., *Editor, THE PHAROS*
2 Palo Alto Square, Palo Alto, California 94304
(Telephone: 415-493-5900)

December 9, 1975

Dr. H. E. Thelander
40 Seafirth Place
Tiburon, California 94920

Dear Dr. Thelander:

As always it was very nice indeed to hear from you. I appreciate your sending me the brief communication entitled, "Intelligence Trap", and I read it with interest. I think what you have to say is obviously very important, but I am afraid it is a bit too technical for the Pharos. As you know, we have enjoyed ever so much publishing some of your pieces, and I find it difficult, despite your invitation to me to be absolutely frank, to say that we can't use this one. What I would like to suggest, however, is that you send it to one of the major pediatric journals for possible use as an editorial. It seems to me that that would be quite appropriate, and I should think that the American Journal of Pediatrics or Pediatrics would be glad to use it.

Please don't let the fact that we can't use this manuscript deter you from keeping us in mind for others. Let me say again it was nice to hear from you.

With warm regards and all good wishes for the coming holiday season, I remain

Very sincerely yours,

Robert J. Glaser, M.D.

12/5/74.

Robert J. Glaser, M.D. Editor

The Pharos

2 Palo Alto Square,

Palo Alto, Ca. 94304.

Dear Dr. Glaser,

I haven't been in communication with you for sometime, but enjoy as always "The Pharos" when it arrives.

The enclosed is submitted for your evaluation. Even in my retirement, I get messages from parents and even from some of the children who are trapped as it were with good or very superior intelligence in a near functionless body. I feel obliged to plead with my colleagues, especially the younger ones, to be sensitive to this possibility. We have come a long way in humanizing our care of the handicapped, but I am frightened by present discussions on euthanasia and whole sale abortions at almost any stage of development. We need to approach these problems more in the spirit we did the infectious diseases some 50 years ago, - prevention. I don't see that we have made much progress there. The only feasible approach that I can see, is in early and thorough education of our young in the understanding and reverence for their bodies and mind, - anatomy, function, reproduction and heredity.

If in your opinion, the short article has no real merit along this line, just say so, I am not sensitive about it.

Happy Holidays,

H.E. Thelander, M.D.

To: Charles Carman, M.D.

From: Jo Thelander, Post-graduate student!

Subject: The life styles of women physicians.

Dr. Lillian Cartwright held the first session with women medical students on Friday, Nov., 17 at Millberry Union. The graduate or practicing physicians asked to participate were, Carolyn Piel, Linda Clever, Carol Braga and myself.

Lillian estimated that about 25 medical students attended, there were some nurses and we did not know who the rest were, maybe some Women Libs! A few men stayed in the background.

An hour is a short time to present and allow for questions the life styles of four people but we did our best. Carolyn Piel is from the South and said there was prejudice against women entering the medical schools there at that time so she went north and took her training in Philadelphia and New York. She is married to John Piel, a practising pediatrician and they have four children. Carolyn was invited to Stanford by Dr. Anderson and John had been asked to join our office. Carolyn has taken no time off because of pregnancy and child rearing. She has a southern knack at keeping servants happy. Two of the children are adopted. When Stanford moved to Palo Alto, Dr. Shaw persuaded Carolyn to join him at UCSF. She felt that there was some prejudice in Pediatrics at UC especially in granting promotions.

Dr. Clever is also married to a physician and they have a little girl two years of age. She said her husband is very helpful and understanding so she has no discouragement from him, -quite the contrary. She is now working at St. Marys Hospital Clinic and finds Dr. Brad Cohn helpful. She found it extremely difficult to keep help. She stated that running a household and spending full time at a career was strenuous while the children were little, probably after they were older and in school it would be less difficult. A sympathetic and kind husband was a necessary ingredient!

Dr. Braga is from Hong Kong and is at present Asst. Prof. in OB and Gyn. She commented on the marked difference in attitudes between here and Hong Kong. She said there was no discrimination in admissions or promotions over there. She found the attitudes here strange and disconcerting. Here you are always a woman first and then a doctor. You are constantly reminded that you are a woman and it interferes with your freedom of expression and your aggressive approach toward problems. She is not married.

Everyone seems to think that because I graduated earlier I must have encountered much more prejudice, but this is not so. Perhaps Minnesota is a better place than most others (good old midwest) . I did not encounter any prejudice either as a pre-medic or in medicine. I was offered a fellowship in Physics which I turned down because I wanted to get on with medicine; then I was offered one in neuroanatomy which I did take and earned my M.A. (I was thrilled the other day when the librarian at Childrens showed me that a recent medical article referred to my masters thesis published in 1924.) I was invited to work with Dr. Adair when a junior and published my second paper. Even was elected to Sigma Xi and AOA in my junior year with recommendations from no less a personage than Scammon. (I didnt brag that much to the group.) But I did say that I had not encountered prejudice at UCSF either. They promoted me to Clinical Prof. and gave me an Honorary degree . I did point out to the girls that my "Life Style" of single blessedness was a boon and my male colleagues had often expressed envy of my freedom. If I had been reared a Catholic I probably would have been a nun.

There was not much time for feed-back; but one girl expressed regret that there was no opportunity to meet women from other classes or fraternize much with women faculty members. Maybe some more meetings will result in some type of arrangement to facilitate such gatherings.

At this meeting and also at a meeting of the Womens Medical Society, I emphasized that the Administration at UCSF favored women and had repeatedly tried to do

things to help them.

As mentioned in my diary previously, the Pediatric and OB departments seem to be the ones getting the most criticism. Maybe the men in these specialties feel more threatened because they are in a field where women by their very nature as women have insight and experience that men can not have. Even the Am. Acad. of Pediatrics has never had a woman on its Board. The Amer. Pediatric Society which is more Research oriented has been much friendlier to women. They have had a woman as president and "Honored" certain ones, notably Helen Taussig, Martha Elliott, Edith Potter and Hattie Alexander. It will be interesting to see what the other meetings bring forth.

I am enjoying my work with Dr. Monie very much and learning a great deal about the unresolved problems previously encountered in my work with handicapped children.

I attended the first lecture on genetics yesterday and will try to attend all, partly to get any new information on the subject and partly to see how the students accept the course.

11/24/1971.

10/19/1971

Robert J. Glaser, M.D., Editor
The Pharos
1 East 75th Street
New York, New York. 10021.

My dear Dr. Glaser,

This may be treated as a "Letter to the Editor" if you think it appropriate, otherwise consider it a personal note. The article "Are Medical Schools Obsolete"? in the last issue prompted this recall.

Last year when making the study of the Day Care Centers and Nursery Schools, I was impressed by the eagerness and enthusiasm with which the 4 and 5 year olds approached the learning situation. The teachers said there were more tears on departure than on arrival. Our experience at the nursery school for the handicapped was similar. This spirit of the very young was in great contrast to boredom and fatigue seen in the sessions at the Medical School. Although methodology, in part, might account for the difference and Higher Education and could profitably copy learn from their techniques, what impressed me most was the long span of years, from 4 to 25, of uninterrupted schooling that we tend to enforce on our young. It seemed to me that the students, like the faculty, should be entitled to a Sabathical or two during those years.

For those not Academically inclined, this break should come between the ages of 14 and 18 years and should be spent at work or apprenticed to some trade, giving the youth a chance to test his interest and ability and an opportunity to return to school if he so desired, either a Trade School or to High School without being stigmatized as a "drop-out". The students interested in the pursuit of higher education, should have a Sabathical later, either after High School or during the College years. For those raised in affluence, the time should

be spent preferably at manual labor and getting acquainted with the poor. This might be done through the Peace Corp or Vista. Those interested in the Health Sciences should spend some time with the sick either working in a hospital, a clinic or Public Health Department. I think it is mandatory that we consider seriously the need for a Sabathical year for students as well as professors!

Neonatal Extensive Care Unit Without House Officers

by JACK D. SCOTT, M. D., *Fresno*

At the present time we are attempting to maintain a neonatal intensive care unit without house officers at Valley Children's Hospital in Fresno. I did not intend to set a precedent when we began to care for very sick infants. However, as it became known that we were able to provide neonatal intensive care the demand has steadily grown. The unit has evolved so that we now utilize clinical specialists in the same manner in which many units utilize interns. These professionals are the only reason that our unit can continue in its current form. They permit me to function as teacher, director, and in some instances as a first year resident. In general they are competent to do the majority of necessary procedures including IA Cath, endotracheal intubation, and intravenous therapy on these very small infants. So far I have not yet been able to persuade them to place chest tubes but they do aspirate pneumothoraces with needle and syringe.

Currently we are attempting to coordinate the obstetrics and nursery services of St. Agnes and Fresno Community Hospitals with the unit at Valley Children's Hospital. They will maintain intermediate care nursery services for babies who require a 1 to 6 nurse to baby ratio, and transfer all babies who require 1 to 1 nurse to baby ratio to Valley Children's Hospital under the care of Dr. Devinder Chopra. We hope that this will enable the community to avoid duplication of services and personnel until such time as more bed space that we can provide is needed.

To achieve this coordination, I have persuaded St. Agnes, Fresno Community and Valley Children's Hospital to retain me as director of nursery services at all three institutions. In this role we have developed a transport system which permits the transport of sick infants safely. This system consists of an on call team (i.e., a respiratory therapist, a clinical nurse specialist and myself), and a well equipped transport van which is stationed at Valley Children's Hospital. We do not restrict transport to our local community but transport infants from as far north as Merced and as far south as Coalinga and Porterville.

It is as difficult for me to evaluate our success (or failure) as it would be for a new parent to evaluate his child. Some days, it seems as if we have achieved a great deal, and some days no progress. Statistics tell us that the average census has increased from 2 to 8, and our survival rate has increased from 67% to 82%. I think these differences can be attributed to our excellent nursing staff and the increased use of our transport system.

Phil Sunshine, M. D.

Plans for Postgraduate training at the medical schools in Northern California in various subspecialties will be an ongoing program sponsored by this Chapter. A subcommittee setting up such programs is under the chairmanship of Dr. Philip Sunshine, Stanford. Any members of this Chapter wishing to spend a week or more at one of the Northern California medical schools working as a resident in any particular field related to pediatrics should contact Dr. Sunshine for specific arrangements.

CALIFORNIA SOCIETY FOR THE TREATMENT OF ALCOHOLISM AND OTHER DRUG DEPENDENCY

by ARTHUR BOLTER, M. D., *San Leandro*,
Chairman, Steering Committee

We would like to bring to your attention the formation of this society for those physicians who treat alcoholics and other drug dependent patients. The California Medical Association has undertaken the project of developing such a society as a service to California physicians in order to increase communication and provide other means for the professionalization of drug dependency treatment.

Since the concerns of this new society parallel in some areas the concerns of the members of the Northern California Chapter, American Academy of Pediatrics, we request that you make its existence known to your members and announce in your publication the first annual meeting to be held at 3:30 p.m. on Sunday, March 3, 1974, during the Annual Scientific Assembly of the California Medical Association at the Hilton Hotel in San Francisco.

If you would like to know more about the incorporation of this new society and the projects it is considering, please write to me in care of Gail Jara at the CMA.

ROBERT H. GERDSEN, M. D., *Director, Medical Affairs, Children's Hospital*

Fifty-First and Grove Streets
Oakland, California 94609
Telephone: 654-5600

This is to confirm that Children's Hospital Medical Center would be pleased to participate in a post graduate educational program for members of the A.A.P. in Northern California. Likewise I would be most willing to coordinate these post graduate opportunities through my office at Children's. I have personally contacted the following department chiefs who have all agreed to offer one to eight weeks refresher preceptorships in their respective subspecialties. In order not to dilute the educational experience, they have elected to except no more than one physician at a time and have agreed to offer these opportunities year round provided they can be scheduled at least 3 months in advance.

All inquiries for the following programs should be directed to:

H. Taybi, M.D.—Radiology
B. Lubin, M. D.—Hematology
M. Sayre, M. D.—Neonatology
D. Guenther, M. D.—Allergy and Immunology
S. Higashino, M.D.—Cardiology
J. Whalen, M.D.—Chronic Respiratory Diseases
S. Sherman, M.D.—Multiple Handicapped Center
E. Senz, M.D.—Neurology
K. Schroeder, M.D.—Anesthesiology

HELEN M. WALLACE, M. D.

**Professor and Chairman
Maternal and Child Health Program
U. C. Berkeley**

The University of California School of Public Health at Berkeley has a number of Training Programs which may be of interest to you. They are:

Type	Duration
1. Basic Training in Maternal and Child Health (Community pediatrics)	9 months
2. Health of School-Age Children and Youth (including Adolescent Medicine)	9 months
3. Handicapped Children	21 months
4. Comprehensive Care	21 months
5. Perinatology	21 months

Tax-exempt Fellowships are available.

We are now accepting applications for the group to be admitted in September 1974.

Federal legislation in the 1960's has meant that many community health services for children are in need of pediatricians with this type of training for the following types of interesting and challenging positions:

1. As Pediatric Consultants or Directors of Maternal and Child Health to federal, state or local agencies.
2. As Directors of Programs providing Comprehensive Care to Children and Youth.
3. As Directors of Crippled Children's Programs.
4. As Directors of School Health Programs.
5. As Directors of community centers for the retarded or handicapped.
6. As Directors of University-affiliated Centers for the handicapped or retarded.
7. As Faculty members of medical schools.
8. As Directors of Perinatal Centers in hospitals, or as Consultants to Health Departments.
9. As Pediatricians in Maternity and Infant Care Projects.

Isreal in February of 1973

H. E. THELANDER, M. D.

On the way to Galilee we stopped at a Kibbutz, Nof Ginossar. This was one of the early Kibbutzes, started shortly after the migration of the Jews to Israel from Hitler's Germany. The history was told us by a man who was one of the founders of this Kibbutz. His description of the plight of the refugees was very moving. There were doctors, professors, educators among them, now all unemployed, no place, no money. They built some shelters, planted some vegetables, shared the work and created a society of "pure communism" for themselves. The first two years they were always hungry. It was very moving and the only time we heard anything about those bleak days.

The Kibbutz looked a bit like one of our better auto-camps. The living quarters were around the edge. There was a large dining area, a hall or class room where we met for the talk, and, of course, buildings for the utilities, storage, and so on. Only about 50% of the population live in Kibbutzes. Many young Americans and Europeans spend a year in one. Some studies have been made on the impact of this type of experience on the young but not enough time has elapsed as yet to evaluate it. Boys and girls work together and treat each other as brothers and sisters. It is interesting that marriages seldom occur between Kibbutz members. The young children, 4-9 years, sleep at home with their parents whenever this is possible. All learn Hebrew and the history of the Jewish people. Their education is complete from kindergarten on, with the additional experience of practical work in the fields and maintaining the Kibbutz. Boys and girls work alike and even in adult life and outside the Kibbutz, women are permitted to take any position for which they are qualified and receive the same wage as men. Young women shouldered guns and participated in the defense of their country.

10. As Pediatricians in Neighborhood Health Centers, or other programs for disadvantaged children.
11. As Directors of Adolescent Medicine Programs.

ADVANCE REGISTRATION

1974 COMBINED SOUTHERN CALIFORNIA PEDIATRIC POSTGRADUATE MEETING

PALM SPRINGS, CALIFORNIA

MARCH 8, 9, 10, 1974

DATE: _____

NAME: _____

STREET: _____

CITY: _____ STATE: _____ ZIP: _____

TUITION FEE \$65. (INTERNS AND RESIDENTS \$25.) \$ _____

FASHION SHOW BREAKFAST (\$4.50): _____

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TOTAL: \$ _____

NUMBER FOR: BRIDGE: _____ TENNIS: _____

WINE AND CHEESE TASTING PARTY: _____

No. IN PARTY _____

HOTEL ACCOMMODATIONS REQUESTED

☐ DOUBLE ☐ SINGLE

Arrive: _____ Depart: _____

HOTEL WILL CONFIRM AND BILL YOU

**COMPLETE PAYMENT MUST
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Please make checks payable to:

Los Angeles Pediatric Society

(REFUNDED IN FULL IF CANCELLED
BY FEBRUARY 24, 1974)

Return to:

Los Angeles Pediatric Society
P. O. Box 2022
Inglewood, Ca. 90305

phone procedures, reading skills, reading for pleasure (including newspapers), mental health, safety, first aid, disease, drug addiction, alcohol, hospitals, insurance, funerals, the family, child care, kitchen and food, housekeeping, self-concept, friendships, education, selecting clothes, mending, grooming, dating, and party etiquette.

Among the basic subjects there is math, which includes making change, measurements, personal budgets, figuring wages, taxes, Social Security, purchasing, and interest. In addition, there are courses which present American history, citizenship, voting, politics, laws and courts, transportation, conservation, the use of leisure time, application blanks, employment facts, work records, references, what employers want, employment agencies, and vacations.

Each of the subjects is presented with thoroughness. As an example, in the area of grooming these are some of the details covered: health and appearance, sleep, rest, posture, cleanliness, hair, hands, fingernails

feet, toenails, and skin. Under the topic of funerals are listed: what to wear, where to sit, selection of a site, costs, and markers.

On-the-job training, with the cooperation of the citizens involved in the cluster skills, provides for active participation. In the process, the students rotate through the various agencies and industries.

My enthusiasm is based not solely on impressive manuals or a tour of the facilities, but also on the program's effect on my nephew. As a result of meningitis in infancy, he has dyslexia and minor neurological signs. I had not seen him for three years, and the change was so marked that I felt obliged not only to visit the program, but to share with others my enthusiasm for the work being done. Jeff no longer stutters. He has poise; he is happy and confident. And he has a job in the Senior Citizens' home. He enjoys helping others. He has his high school diploma and was the happy recipient of the Athletic Trophy of the school.

A Story of Success

- A student said, "This can't be reading. It's too easy. Reading's hard for me, so this can't be reading."
- His teacher wrote, "I consider your materials to be 'painless learning,' especially effective with seriously handicapped non-readers."
- Another teacher commented, "I am using the New Streamlined English books with an educable mentally retarded class with amazing success. The content material is really appealing to the boys and girls in this intermediate age group."

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Remedial reading teachers are surprised to find the New Streamlined English series so easy to use with their slow readers, and so effective.

Trial evaluation kit (Skill Books 1, 2, 3, and Teacher's Manual) is available at \$5.00.

Order from: New Readers Press
Box 131
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Teacher-prepared vocational training materials

by Donald M. Hayes

Rather than use textbooks that have abstract names and places, I often compose our own stories, using names and places which are familiar to my class. The narratives are correlated with slides I prepare. These help the students to associate what they read with businesses and industries in our community. After completing the stories, we plan a tour of the places we read about.

Through such materials the students learn firsthand about the kind of work available. The research involved in preparing the stories familiarizes me with jobs which they can study. Businessmen are also made aware of the retarded student and the kind of employment he can master.

Various stories are developed to provide insight to employment situations. In addition, facts are presented about problems which may arise on a job and ways in which they may be handled. For the companies in our area, stories are included about their

products, how they are manufactured and distributed.

(It is suggested that school districts hire the teacher during the summer break to prepare vocational training materials, for a more thorough job can be done when his time is unencumbered.)

The students attend school for three years and then are placed in a full-time job training station in the community during their senior year.

Our educational work-experience program is based on the assumption that the mentally retarded child learns best through realistic, concrete activities. Hence, before he graduates, he learns the meaning of a real job, a real boss, real wages, and a real budget to follow.

Donald M. Hayes teaches high school in New Milford, Connecticut.

Successful secondary program

by Hulda E. Thelander, M.D.

On a visit to my home town, I found a model vocational training program. Little Falls, Minnesota, is located on the Mississippi River at a site that gets its name from the dip in the river bed. It is a beautiful area with a population of about 7,000.

The senior high school has a vocational development program for handicapped students. The three-year curriculum starts at the sophomore level and leads to a graduation diploma. The special education section of the county and the State Department of Education have recognized the need for something other than purely academic training for young people with learning problems or other handicaps that may interfere with normal progress in the regular classes.

The goal is "to give the vocationally handicapped student a chance to become a wage earner through participation in an adequate high school program, to be reasonably happy as an adult, and to be a contributing member of his community." The specific aim is to utilize the strengths rather than the weaknesses of the handicapped child.

The staff consists of teacher-coordinators with competency in the following areas:

1. Business education and interrelated cooperative techniques
2. Home economics
3. Trade and industry

4. Agriculture

The administrator and faculty have enlisted the cooperation of the citizens of the community for trade-related on-the-job training. The cluster skill areas are grouped as follows:

1. Business and clerical
2. Farming and forestry
3. Service (laundry, maid, etc.)
4. Health occupations
5. Food service
6. Transportation
7. Mechanics
8. Construction trades
9. Industrial production (factories)
10. Appliances and repairs

The first year (sophomore) is spent in integrated training in the mornings and vocational development in the afternoons. The next two years continue the morning integrated training and or trade-related sessions, while the afternoons are spent with on-the-job training.

The amount of material and the detail with which it is given is outstanding. It covers such subjects as effective speaking and listening, group discussion, appropriate language, introductions, interviews, tele-

Hulda E. Thelander, M.D. is Director Emeritus at the Child Development Center in the Children's Hospital, San Francisco, California.

wood from splitting. A satisfactory drill bit can be made by cutting the head from a nail the size you are using and inserting it in the bit of a hand drill.

10. Catalogs from large mail order companies are a prolific source of wood-working ideas. When you visit stores, be observant. Most of the wood furnishings you see can be simplified, adapted, or varied to fit your woodworking material.

Management tips

11. The privilege of working on wood projects can be used as a lever to promote good classroom behavior.
12. When student interest lags, reduce wood-working time.
13. Make the shop area "out of bounds" during other classroom activities.
14. When the teacher sees a tool being used improperly, he should stop work at once and talk about the misuse.
15. Troublemakers should be barred from the shop area for a defined period of time.
16. Reckless swinging of hammers and saws or throwing nails and pieces of wood can be stopped by seating the class at once outside the work area.
17. Explain the dangers of misbehavior to the individuals and to the group.
18. *Always* be in the work area when tools are being used. This is also for your own legal protection.
19. Keep an especially close watch on the hot-tempered or hyperactive child.
20. Spend several days explaining and demonstrating the proper use of the tools. Also hold short review sessions.
21. Keep your working group to eight students or fewer.
22. At cleanup time, seat the class and assign two or three reliable children to tidy the shop area and put the tools away.
23. Discuss needed shop rules with the students. Then post the rules, and provide frequent review.

Purchasing tips

24. White glue is much cheaper when purchased by the quart or half-gallon. Cut the top half off half-pint milk containers, and put in about a half-inch of glue at a time. This will save glue and cut down on messes. Use short-handled stiff paint brushes for applying glue.
25. If paints, varnishes, stains, and fillers with turpentine and petroleum bases are used exclusively, only one solvent (turpentine or paint-thinner) need be kept on hand for thinning, cleaning brushes, and wiping up spills.
26. One inch and 1½-inch brushes are generally large enough for applying finishes. Also, a lint-free rag can be used for applying finishes.
27. Small nails, ¾" and 1" brads will probably be the most commonly used fasteners.
28. The children can bring articles from home to be repaired and refinished; the school will save by not having to buy new materials for projects.
29. Don't let students start large projects unless they furnish their own material.

Share new ideas with *The Pointer*!

Special class teachers are invited to send their ideas for classroom projects, methods, and techniques to *The Pointer*. By doing so, they will add to a pool of practical experience through publication to a highly interested audience.

Contributions of ideas and methods aid not only special class teachers and educators in the United States, but in foreign countries also. Much of *The Pointer* is reprinted in foreign journals and in the Japanese edition of *The Pointer*.

N.S.W. RIGHT TO LIFE ASSOCIATION

Sir: We wish to inform you that a Hospital Branch of the New South Wales Right to Life Association has been formed.

The aim of this Branch is to promote life values by taking a firm stand against abortion on demand and euthanasia. It is open to all hospital personnel: administrators, surgeons, anaesthetists, trained and trainee nurses, clerical and catering staff, pathologists and orderlies.

This Branch is firmly convinced that hospital personnel who are informed, who have the expertise, and who will have to perform these duties, should be in the leaders when objections are raised against these serious social issues. We are equally convinced that positive social alternatives should be taken—solutions such as genetic and marriage counselling, adequate social support for the unmarried mother, adoption facilities and sensible sex education in our homes and schools.

The people who state that abortion is primarily a matter for a woman and her doctor are simply deceiving themselves or they are ignorant of how a hospital—not to mention an operating theatre—functions. Clearly, many people are involved and the so-called Medical Practice Clarification Bill of May, 1973, was an attempt of major social legislation.

During the debate on the above-mentioned Bill, Mr Beazley, Fremantle (then Minister for Education), stated,

And the Bill does dare to utter in law what it will force in practice, namely, that the obligation to endeavour to resuscitate the life of an infant no longer rests on doctors and nurses. They are both turned by groundless abortion from being healers to being killers. From a purely medical viewpoint, abortion conflicts with the only valid ideals and principles of the medical profession, namely that it exists to protect life.¹

That was almost 12 months ago. The struggle to find sane solutions to the issues of abortion and euthanasia still goes on. This is why we have formed our Branch.

Those interested in joining should contact: The President, Hospital Branch, N.S.W. Right to Life Association, Suite 4A, 6th Floor, King York Building, 32 York Street, Sydney, N.S.W. 2000. Telephone: 29-8350.

We wish to emphasize that the N.S.W. Right to Life Association is a non-denominational, non-party-political body.

General Operating Theatres,
St Vincent's Hospital,
Darlinghurst, N.S.W. 2010.

M. LABOURE,
Assistant Matron.

¹ Australian Parliamentary Debates (Hansard), 28th Parliament, 1st Session. House of Representatives, Thursday, May 10, 1973: 1977.