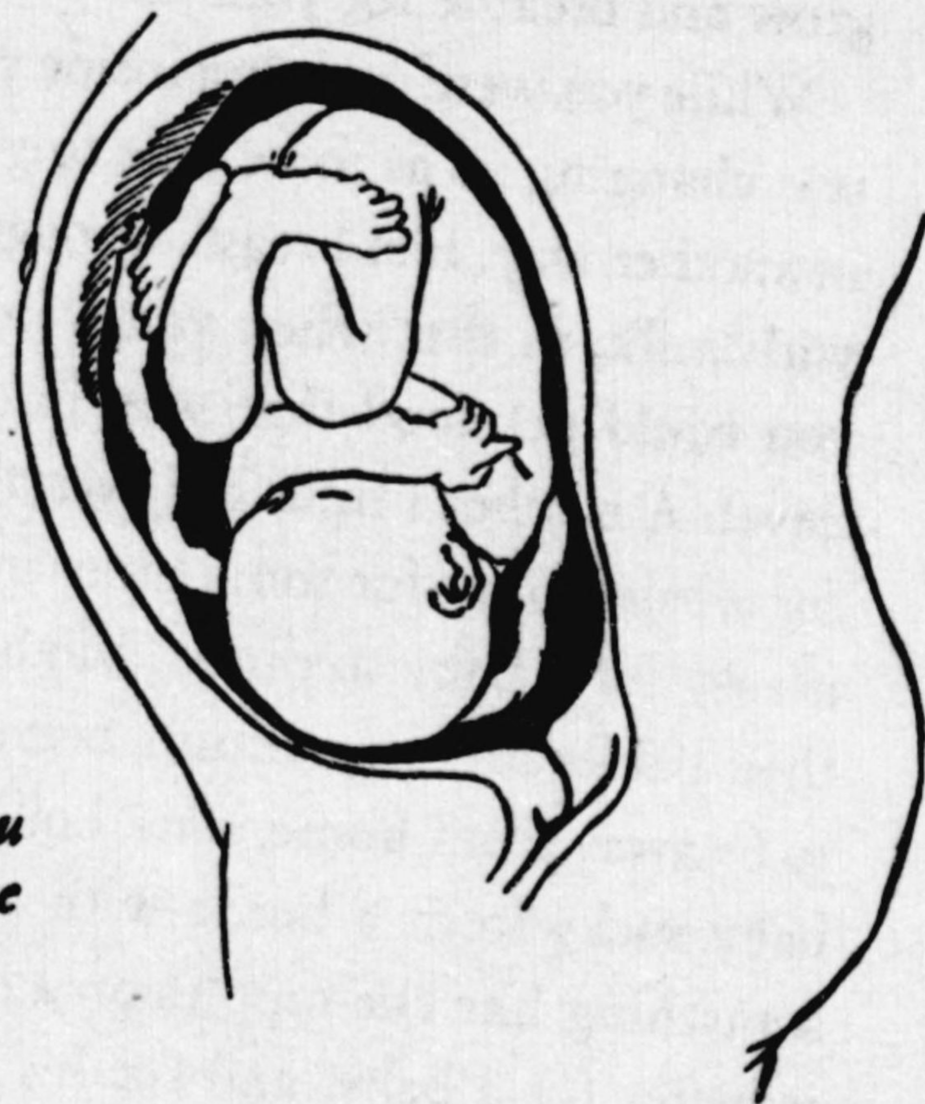
in that egg must be much better protected than the eggs of mother creatures that have a great many at one time. Once in a while a human mother has two eggs at a time and twins are born, and very, very rarely a mother has as many as five!

The pictures on the next page will show you what a good arrangement is made to take care of the human baby. At first it isn't even called a baby, you remember, but an embryo, because it hasn't yet developed the form of a baby. But after the egg has grown about five weeks the parts that are going to become the head and arms and legs and eyes begin to show, and from then on until the baby is born it is called a fetus. It's called a fetus instead of a baby because it doesn't breathe and eat for itself; those necessary things are all taken care of by the mother's body.

In the picture you can see how the fetus is attached to the mother and how, through the connecting cord, nourishment can pass into it from the blood of the mother and waste matter can be carried back for the mother's blood to get rid of. The nourishment makes it possible for bone and blood and muscle and skin to be formed, as well as hair and fingernails and all the other parts that make up one's body. After a baby is born he will suck to

This is the way you looked when you had been growing about two months.

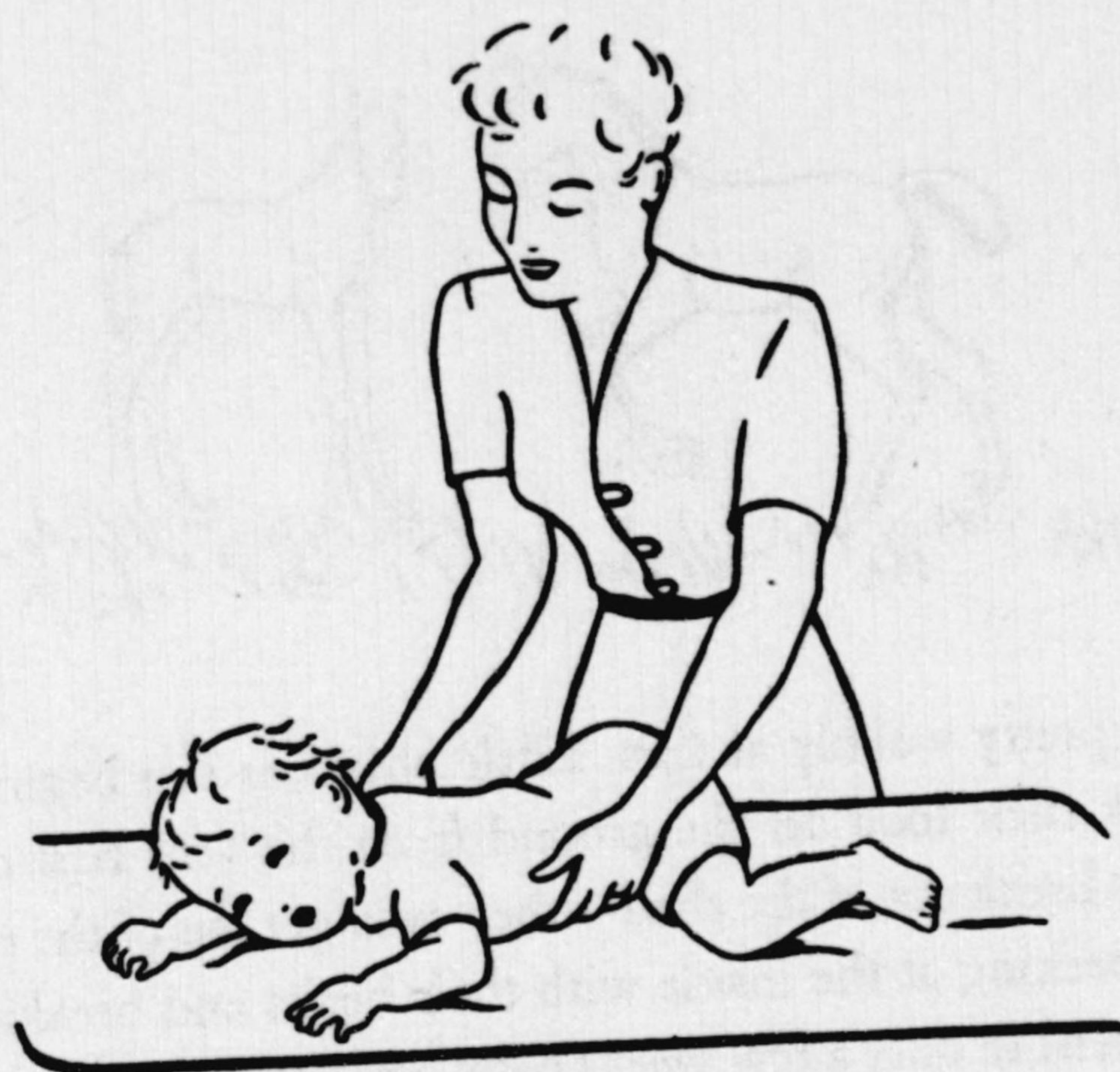


And here is the way you looked when you were ready to be born.

get his food, but before birth nourishment just flows into him. Everything he needs comes from his mother's blood stream, through the cord and the placenta.

If you look at what you probably call your stomach, but what should really be called your abdomen, you'll see your navel, a little dented-in place which is all that is left of the opening that once attached you to your mother's body by a cord. When you were born, the doctor or whoever helped to bring you into the world cut this cord, or tube, because you were now ready to eat and grow and breathe for yourself.

While you were growing inside your mother her body was changing so as to be able to give you nourishment in another way. Her breasts were getting ready to fill up with milk, so that when you were big enough to suck you could get food that way instead of through your navel. A mother's milk has everything that is necessary for a baby to eat for some time, and it is made so that it is easy for a baby to digest. Mothers who cannot nurse their babies for some reason, because they are ill or have to be away from home, must boil cow's milk, which the baby sucks from a bottle with a rubber nipple that is something like the nipples on a mother's breasts. But it is better for a baby, and for his mother too, if she can



nurse him, because mother's milk is easier to digest and is pure and fresh.

Nursing a baby is, of course, only a small part of the loving care that human mothers give their babies. For when babies are born they are so helpless for many months that they can't do anything for themselves but cry and sneeze and wiggle their arms and legs; they can't even turn over alone. The babies of some animals can in a very few days after they are born do many things by themselves. Young colts can run, though their long legs

are pretty wobbly at first. Little chickens can begin to peck their food off the ground from the very first day they break out of the shell—they even get out of the egg by pecking at the inside with their beaks and breaking it open! In only a few weeks baby birds can fly, and they don't even come back to the nest at night to have their mother cover them with her wings. Although the baby opossum is no bigger than a bee when he is born, and is just strong enough to climb into his mother's pouch, he can manage for himself in only two months!

Human babies take much longer than *that* to grow big and strong! Their fathers and mothers must take care of them not for a few weeks or a few months but for many years. That is why people have learned, through the ages, to make safe, warm houses in which families can live

together and take care of their children while they are growing up. That is why fathers, and sometimes mothers too, learn to do some kind of work for which they will be paid, so that they will be able to furnish all the things their babies will need.

When you were born you needed a little basket to sleep in, and pretty soon you had to have a bigger bed. You needed a tub to be bathed in and a baby carriage to ride in and, a little later on, a chair to sit on and some toys to play with, as well as warm clothes and food. You can see why fathers and mothers have to work hard to keep up with their children's needs.

But they don't mind. They like to work for their children, because they love them so much. Each day that parents take care of their children they love them more. In this they aren't like animals that care for and know

The baby zebra is nourished by the milk from its mother.

their own children only when they are newly born. The mother seals, whose babies come into a very cold world up on the shores of Alaska, can tell which their own children are by calling to them and listening for an answer. After the mother has been out in the ocean getting fish to eat, she finds her way back to her own baby on shore, even though there are hundreds of seals all crowded together, because one voice sounds just a little different to her from all the other voices. But a year or two later she won't have the least idea which of the seals are her children, any more than the mother sheep in a flock know which sheep were once their lambs. Seals and sheep have new babies every year, and forget all about those they had before.

Can you imagine your mother forgetting all about you, not even knowing who you were, just because you were a year old or because she had a new baby? Aren't you glad that it works the other way around with our parents—that they love us *more* from year to year? Most of the nice things in the world have come about because people love their children and want to give them good care. Churches and schools, parks and playgrounds, gardens and farms, where food can be raised, books that have beautiful pictures and interesting stories, hospitals that

care for sick people and for mothers while their babies are being born—these things all came about because people wanted their families to enjoy better conditions, to be safer and healthier and better educated.

You remember we said that human mothers usually have only one egg at a time, and that this is the reason the human baby has to be so carefully protected before it is big and strong enough to come into the world? Among creatures that have many eggs, the young, when they are born, are much nearer the time when they can take care of themselves. But even so, there are many interesting ways in which the parents protect their babies

from harm. For instance, some spiders carry their eggs about with them in a silk cocoon until the eggs hatch. Sometimes it is the father who carries and looks after the eggs; the little father seahorse that you see in the picture has a sort of breast-pocket to carry the eggs in. One fish, the sculpin, after he has poured the milt, or sperm cells, over the eggs that the mother fish has let loose into the water, clasps the mass of eggs with his fins, and thus keeps them from danger. Another fish, one that lives off the coast of South America, takes the eggs into his mouth after they are laid, or spawned, as it is called, and carries them about until they hatch. While he carries them he can't eat at all! So you see that many parents besides human parents must make sacrifices for their children.

But human fathers and mothers keep their children together in a family, so that they may be taught useful things and so that they may learn how to care for the children *they* will have when they grow up. A mother mouse nurses her babies for only ten days, and they are full-

This baby walrus has not yet grown tusks.

grown when they are a month old, but they, like all animals except man, know how to care for their babies without being taught how. The walrus must suckle her young for two years, because not until then do they grow strong tusks, which they can use for digging the mussels that become their food after they leave their mothers' breasts.

If an animal has many enemies it usually becomes able to take care of itself fairly soon after birth, or else so many young are born at a time that some will be sure to live, even though a great many are killed. Another way that nature works is to give some animals a means of protecting themselves, so that even while they are very young they can look after themselves. The baby porcupine has

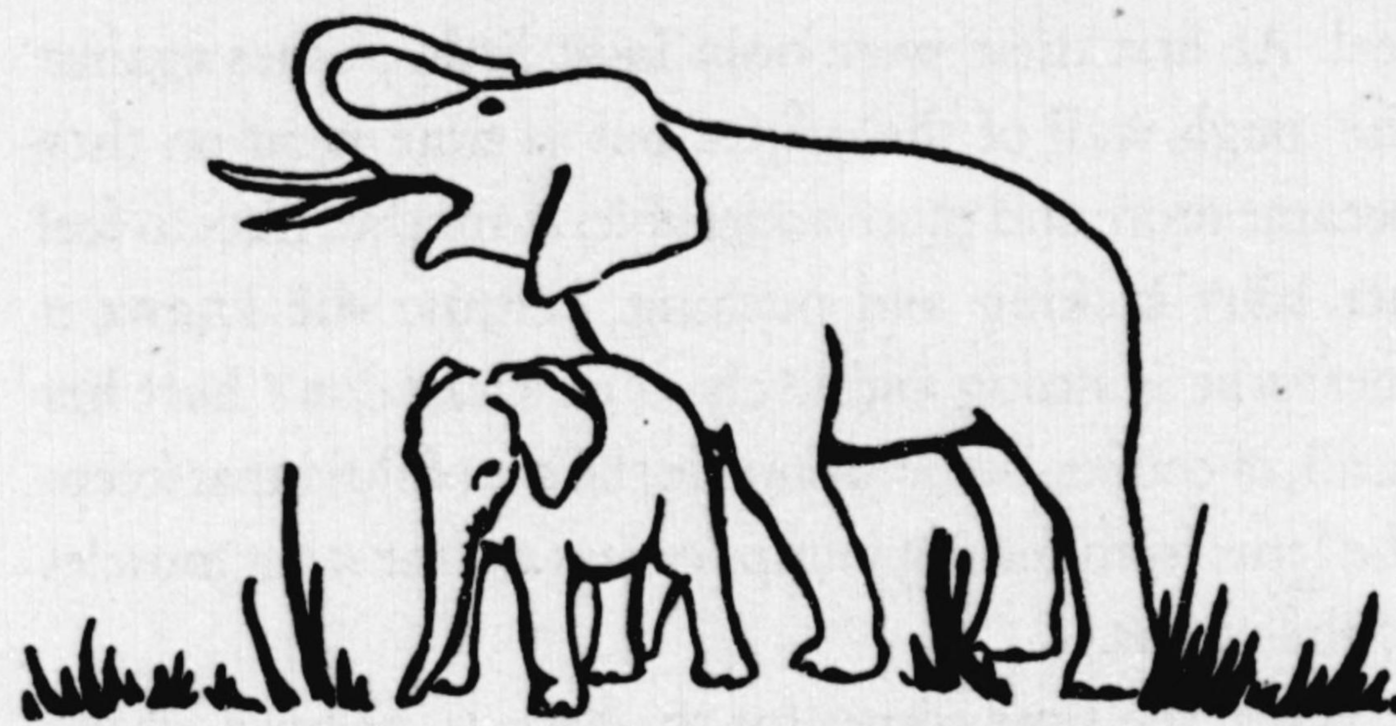
Baby opossums cling to their mother's back, while she climbs in the trees.

sharp teeth when it's born, and the needle-y spines that cover its body soon become stiff enough so that it doesn't need its mother's care after it is a week old. Animals that are its enemies don't want to risk having those sharp spines run into them! But among the opossums, where the baby is so helpless that it must live for two months in its mother's pouch, there must be several babies born at a time, so that if anything happens to one, another will live to grow up.

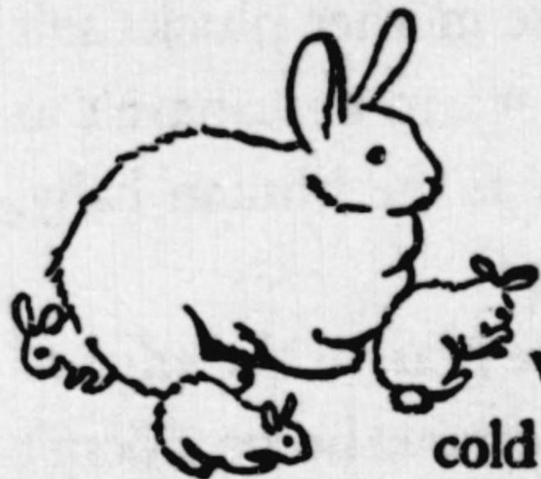
No matter what kind of animals we look at we find most interesting arrangements by which the parents look after their young. Wouldn't it be queer to be a baby bat in a red bat family and cling tightly to your mother while she went skimming through the air every night in search of her food? Or do you think you'd rather be a baby bear, and have your mother take your whole head gently in

her mouth when she wanted to carry you from place to place? Even the baby rabbit, whose mother plucks soft fur from her own breast to line a warm nest, hasn't as wonderfully cozy a place to lie in as the human baby, who is cuddled in his mother's arms!

A rabbit's nest, well hidden in the grass at the edge of the garden, sounds like a very comfortable home, doesn't it? It is fine for baby rabbits, which come into the world with nice warm fur on their bodies. But it wouldn't do at all for human babies, who are so delicately made that they must have clothes put on right away. It is quite a change to come from the inside of the mother's body, where it was just the right warmth all the time, into a



Baby elephants take many years to grow up.



world that may be hot one day and cold the next. But human mothers and fathers make careful plans so that their babies won't get chilled or overheated. They have many months after they know a baby is coming in which to get ready for him.

When you had been growing about four and a half months in the well-protected little dwelling place of your mother's body, you were big and strong enough so that you began to make movements that your mother could feel. At first these were only faint little pushes against the tough wall of the uterus, but as time went on they became more and more noticeable. A mother likes to feel her baby kicking and pushing, because she knows it means he is strong and lively. The kicks don't hurt her at all, of course, because outside the sac of fluid that keeps the fetus from feeling bumps or jars are the stout muscles of the uterus.

When the time comes for the baby to be born—after he has been growing for about 280 days—the muscles in

the wall of the uterus begin to contract, or squeeze together, so as to make the opening at the bottom of the uterus larger. It doesn't seem as though anything as large as a baby could possibly get through the opening of the uterus that you see in the picture on page 13, does it? But gradually the opening is stretched by the pushing muscles so that the baby begins to come out.

Usually it is his head that comes first; and because, as you can see in the picture, the head is the largest part of his body, it isn't very hard for the rest of him to be born after the head comes through. If the baby isn't lying in the uterus so that his head comes just where the opening is, the doctor who is helping at the birth of the baby takes special care to see that he isn't injured as he comes into the world.

"But doesn't it hurt the baby," some children say, "to be squeezed and pushed so hard while he is being born?" There is a reason why the baby isn't harmed by having the muscles of the uterus force him downward and out—his bones are very soft and haven't hardened yet, as they will when he is older. His skull, the bony framework of his head, is tender and yields to the pressure that comes as he moves along. Sometimes his head looks a bit odd when he is first born, because it was pushed a little out of shape as it squeezed through the opening, but it soon gets back its right form. It hurts the mother more than the baby, while he is being pushed out. But she is glad to put up with this pain, which doesn't last very long, because she has been so eagerly waiting for her baby to come.

What do you think is the first thing a baby does when he slips out of his mother's body? He cries! The reason for his beginning to yell is not because he is hurt, but because it is necessary for him to stretch his lungs so they'll begin working right away. You see, now he must breathe for himself since he is no longer a part of his mother; otherwise he couldn't live. His journey, though it is a very short distance, has taken him several hours.

And now the cord that has so long connected him with his mother must be cut, and the end tied up; he must be

The baby they have been waiting for is really here.

bundled into a blanket and put into the snug little bed that his parents have already prepared for him. He must rest a great deal, so that he can grow and get used to his new home. For many weeks he will sleep most of the time, waking only to be fed and bathed, to stretch and wriggle, and then go back to sleep again.

What fun his father and mother have, holding him and looking at his tiny hands and feet, with their perfect little finger- and toenails! How delighted they are when he opens his eyes and waves his little fists in the air! They stroke his soft, fuzzy hair, and laugh over his rather red

and crumpled skin, and say, "His forehead is like yours" or "He has long fingers, like mine."

Whether he is short and fat or long and thin, whether he weighs five pounds or eight (most babies weigh about seven), they think he is the most wonderful baby in the world. And so he is, to them, for he is *their* baby. All the long time of waiting is over. He is really here. Before he was born they couldn't tell whether he would be a boy or a girl. But now that he has come they can use one of the many names they have talked about giving him. If it is a boy they say, "We'll call him Malcolm or John or Paul or . . . [child's own name].

If it is a girl they think Mary or Susan or Charlotte or . . . [child's own name] will just suit her.

Now that the baby has really come they feel even more closely united and joined together than they did when they were making the baby, by lying tight and closely hugged together so that the sperm cells from the father could find their way through his penis into the opening in the body of the mother. Their bodies were joined together then, and they were very happy in the thought that their coming together might mean they'd have a baby. But now they are joined together in a new way, by having a child to love and watch over and care for. They will be needing each other more than ever. Sometimes they will laugh over him, sometimes they will cry, sometimes they will scold him and sometimes praise him. But always now they will be happier than they were before, for they have a baby to love and to love them.

TO PARENTS

To Parents

A GREAT deal has been said and written in recent years about how many responsibilities have been removed from the home. It is true that boys nowadays no longer learn their trades at home and that girls go to school to get the kind of education that will suit them for almost any work they may want to do, from nursing to a musical career. But with the ever increasing study and understanding of children, just as many responsibilities are added to the home as are taken away. The more scientists find out about human behavior and relationships, the more background parents must have to enable them to guide their children into happy and useful adulthood. Although it may be the school that finds out that Peter has a very high type of intelligence, it is Peter's parents who must do the greater part of the planning to see that his intelligence has a chance to develop. If Jane shows signs of being a timid, shy child, her parents know that it is up to them to try to develop her self-

confidence before lack of belief in herself gets so well established that her fear of meeting people and facing new situations becomes habitual.

One field in which many parents seem to feel themselves especially handicapped in guiding their children is that area of experience known as sex behavior. Even the wisest among us know all too little about this basic need, which runs through every life like the woof threads upon which the warp of a fabric is woven. In simple societies, where man has not built up such complex ways of living, there are not so many chances of this urge being wrongly directed, but in an elaborate structure such as ours there are so many "musts" and "must nots," there are such strong feelings and prejudices, that he who would find his way in the maze of social adjustment must walk warily.

Comparatively few parents of today feel that their own sex education was handled in such a way as to leave them free from embarrassing inhibitions and prejudices. Because for so long this part of life was one about which little was accurately known, many taboos came into being that gave evidence of the importance of sex in people's lives but did little or nothing to encourage normal adjustments to it.

When the parent education movement got under way in the 1920's many of the mothers who showed great interest in a better understanding of children and parent-child relationships used to ask, "*Should* we try to explain sex to our children?" Nowadays that question is no longer heard; the question that has been substituted for it is, "*How* can we best help our children to have wholesome attitudes about sex? *How* shall we give them this education?" No one knows the answer. It is too soon for anyone to say, "*This* plan will bring *this* result." There are as yet no blueprints for the development of attitudes, and that is largely what training in sex behavior must be. We do have a few clues, however, that may be useful to the thoughtful parent who is willing to make some effort to fit himself to be a good guide.

We have the testimony of grown people who say that their lives have been happier and better adjusted because of the frankness and naturalness with which their parents treated the subject. We have evidence, from careful observations of many marriages, that there is a decided tendency for married couples to be better adjusted to one another if their parents had a good adjustment and their childhood homes were pleasant.

We also have some negative evidence. We have plenty of indication that the ignorance of many young people about sex is in part responsible for the scrapes and delinquencies they get into. We see many otherwise normal grown people who are confessedly so inhibited and repressed that their lives are twisted and warped away from the normal channels of love and marriage. We find that emotional (often called "mental") breakdowns occurring in middle life often betray the sex maladjustment of the individual.

All this makes us certain that *some* kind of education is desirable, that people in our complex society do not stand a very good chance of developing control over this fundamental drive without some background of understanding. Just *how* to build up good attitudes is still very baffling.

RESPONSIBILITIES OF PARENTS

One thing we know can be accomplished—parents can fit themselves to answer their children's questions on sex naturally and straightforwardly. The plea that some people make, that they "don't know enough," doesn't hold water. It is not hard to give satisfactory answers to the simple questions of young children if one takes the trouble to become familiar with those parts of the human

body that have to do with reproduction and with the processes of reproduction. It will help a lot to learn something about the life histories of some of the birds, insects, and mammals, whose habits make fascinating true stories for children to hear. In the books of Fabre, Thomson, Pyecraft, and other naturalists who write in an absorbingly interesting way there is much material that can be read aloud. Informal conversations, such as are bound to occur when one is reading to children, offer a wonderful opportunity for intimacy, and intimate companionship with young children is a fine basis for establishing an atmosphere that encourages them to feel free to ask anything they wish.

There is another type of parent, who feels that it is not so much his ignorance as his own sex attitudes that make him a poor person to teach children. There is an answer for him, or her, too. Inhibitions and repressions caused by inadequacies in one's own training and experience may be lessened, and even removed, by deliberately exposing oneself to the best that has been thought and written on the various problems relating to sex. Feelings of fear or distaste may have caused one to push out of one's thoughts anything that has to do with the sex side of life. But by reading, one often becomes better able to under-

stand the cause of these feelings, and comprehension usually results in the release of some of the tension. Oftentimes knowledge gradually breaks down the uncomfortable and distressing taboos that have been harbored.

From the day a child is born we begin to train him, consciously or unconsciously. We try to help him acquire those ways of behaving that will make him an acceptable member of the society he lives in. His original impulses are neither good nor bad; they are simply the result of his efforts to fill his needs. When he cries or grabs or strikes out, he does so because these are the only ways he knows of answering his needs. Bit by bit, by our training and example, we help him substitute other ways that answer his purposes without interfering with other people's comfort.

Our training with regard to sex will be no different in its underlying features than training in eating or in any other habit. We ask a child to restrain his desires and to eat what is prepared, at certain times and places; likewise we ask him to modify his sexual desires to fit into the pattern of life around him.

Just as we get better results by showing a child how to share his toys than we do by scolding him for being selfish, so we get better results by positive training in other

kinds of control. We show approval when he learns the dry habit, saying little about the accidents and lapses. Instead of making a great fuss over his running out-of-doors with no clothes on, or handling his genitals, we simply say that people always wear clothes when they go outside, and that all parts of our bodies, our ears or noses, eyes or sex organs, are better kept clean and let alone.

Most of a child's early training will be indirect, rather than pointed and obvious. We should take pains to answer questions truthfully, but we don't need to try to do more than answer his immediate needs; it is no more necessary to give complete and detailed sex information in the early years than it is for us to begin to teach a child reading or writing before he needs those skills.

INFORMATION THE YOUNG CHILD NEEDS

Most children begin to have an occasional flicker of interest in the origins of life before they reach school age. Much, of course, depends on the surrounding circumstances. The child into whose family a new baby is born is almost certain to want to know where the baby came from. In the mind of another child the first question may arise when he hears his parents talking about something

that happened before he was born; "Where was I when you lived there?" he may ask. Still another child may have his curiosity aroused by something he hears from his playmates. In one way or another children are certain to have stirrings of interest that will open the way (provided they are not afraid of being laughed at) for giving the necessary information.

The answers to a child's first questionings need not be elaborate and detailed. When he wants to know where babies come from he can be told simply that they grow in the body of their mother until they are big enough to come into the world. A picture showing the cozy way baby kittens or puppies are curled up in their mother's uterus will serve to illustrate, along with the drawing on page 13, how the plan is the same in man and in all animals with backbones.

A child under the age of seven or eight cannot be expected to understand more than the mother's part in reproduction. He probably will be quite content with this, but if he does ask how the baby first got into the mother's body he can be told that a tiny egg grew there. He will be much more interested in hearing about the arrangements that have been made by nature for the baby's safe care during the nine months of prenatal growth, and

about how the young of other creatures are cared for, than in asking questions that you don't feel he is ready to have answered. If you prepare yourself to tell him the life history of a number of different kinds of creatures—such as the frog, the bee, the ever-useful and familiar chicken—you will find him intensely interested. At the same time you will be laying the foundation for his understanding of one of the most important facts about sex—that it has, through the care of the young, gradually developed from a simple animal reaction into the parental love that forms the basis for family life and for all that is finest and best in the relationships of human beings. This explanation of the underlying *meanings* that have come to be associated with sex is quite as important a part of your guidance as the actual giving of information. Thus, a child on a farm may acquire an accurate idea of the way in which reproduction takes place and still gain no inkling of anything beyond the physical facts. Mothers who live on farms often express the feeling that their children's familiarity with mating and birth processes may actually handicap their sex attitudes unless they are given an interpretation of the way in which human sex values have added to and enriched the original biological behavior.

Oftentimes parents are puzzled because, after they have painstakingly told a child about his origin, he forgets all about it and comes to them later on with the very same question. This is a pretty good indication, isn't it, that his curiosity was satisfied at the time and that he hasn't been mulling the thing over in his mind? It suggests that those parents did a very good job of answering his questions the first time.

One of the important parts of fact-giving by parents has to do with the correct names of the parts of the body and their functions. False modesty has resulted in the use of many substitute words and phrases in connection with urination, defecation, and the functions of the sex organs. Instead of being helpful in establishing modest attitudes, this practice only causes confusion and fosters a feeling that there is something coarse about using words that are not veiled with roundabout-ness. It is the parents' responsibility to give the child a vocabulary that will adequately meet his needs, and to give it early enough so that the child's first acquaintance is with the correct terms rather than with the often vulgar and rude expressions that he may hear on the street or playground. Such a vocabulary may be acquired by a child in connection with bathing, for example, when it is natural to say,

"Wash your vulva gently," or "Be sure to clean your navel and your penis carefully." A child who is told something about how his digestive system works will think of "bowel movements" as being a matter-of-course way of expressing what takes place when waste matter is gotten rid of.

Of course it is necessary that the use of such terms shall be unforced. This can be true only if the parents themselves have become accustomed to using the words and expressions they want their children to learn to use. It is harder to talk matter-of-factly about the sex organs and their functions than it is to explain the way one's heart works, or the way the lungs do their job, only because most of us were brought up to avoid mentioning the sex act and the genital organs. But a new attitude and new feelings *can* be learned and made a part of us. This must be done if we are to be able to talk openly and frankly with our children.

WHEN DO CHILDREN NEED FACTS ABOUT SEX?

It has been said before that young children do not need to have information beyond their years. But by the time they go to school, and mingle with children from many different backgrounds, they should be familiar with such

terms as breast, nipple, navel, abdomen, buttocks, and with the names of the organs, male and female—vulva, vagina, uterus, tubes, and penis, scrotum, testes, etc. Such words as cell, egg, sperm, and other commonly used biological terms should be explained. Although such terms as seminal fluid and menstruation will have little meaning in their lives at this early period, there is no harm in their being explained if the occasion arises. Certainly these words and what they imply should be familiar to boys and girls some time before they themselves go through the process of sexual mauration.

One thing must be kept in mind: the *amount* of information a child has is infinitely less important than the way it is given to him and the circumstances connected with his receiving it. Thus, one little girl carried into adulthood an impression of the birth process as being something repulsive because a shocked grandmother hushed up the child's father when he came in to announce, "The sow is about to have a litter of little pigs, and maybe the children would like to see them born." Another child, watching a mother dog give birth to puppies, was rather overwhelmed at the behavior of the dog in getting rid of the placenta, but bore it with good grace because she was laughingly reassured by her mother that

when human babies are born the doctor and nurses take care of this part of the birth. In both of these cases it is clear that the behavior of the adults is the deciding factor; in one instance the child was lastingly alarmed because of the emotion shown by her grandmother, and in the other the little girl's feelings were calmed because her mother showed amusement, understanding, and freedom from emotion.

It is as necessary to find appropriate times to talk these things over with children as it is to find appropriate words. A mother who is really aware of her privilege in being the child's first teacher will be on the alert to take advantage of any opportunities that may open up, in order to make this kind of discussion seem an everyday matter, no more outstanding than the answers she makes to any questions. In other words, she will neither drag in what she feels they should know, when they aren't interested or are busy with something else, nor will she neglect the openings that do arise, even if they come at times that are not exactly the ones she would have chosen. When she is hurrying to get the chicken on stewing it may interrupt her schedule to answer the four-year-old who is peering curiously at the lungs or the little eggs that are forming. But next time she's cutting up a chicken

he may not be around! It may involve some effort to take the child across town or out in the country to visit a new baby of the opposite sex at the time of day he is having his bath. But there's no better or more natural way to satisfy a young child's natural interest in the physical differences between the two sexes. Whenever opportunities come up we must be ready to take advantage of them, for these casual moments are the times when some of the most important education will be carried on.

When parents complain that children ask their questions at awkward moments they don't stop to think that the only ones embarrassed are the other adults who are around, and that the easy acceptance of a child's curiosity may have a good effect on the adults as well as on the child. A child is quick to sense the feeling of those around him, and mishandling an instance of this sort may result in the negative education which is just what we want to avoid. When it is impossible to answer a child's question on the spot, he should be told that when there is time, the matter will be taken up, and then *without fail* time must be found, very soon, to help him learn what he wants to know. Studies have revealed that children actually do not ask a great many questions along this line. The questions they do ask stand out because the adults in the case

are oftentimes unprepared to do a good job answering them.

WHEN CHILDREN DON'T ASK QUESTIONS

"But what about the child who doesn't ask any questions?" Some parents have been confronted with this problem, of which there are various explanations. In the first place, we can't be sure that because a child doesn't come out with questions he actually doesn't have any. Perhaps his silence means that he has sensed that there are some things that are not supposed to be talked about. He may have acquired a feeling that people's bodies are something to be slightly ashamed of because his mother and father have been unduly modest about letting him see them unclothed. Their practices in this matter, of course, have been based on a desire to teach him decorous behavior. Actually, they need not have worried. For boys and girls, as they reach an age when they become conscious of sex differences, and as social customs about such things as clothing, toilet, and bathing are forced upon them, begin very readily to adopt appropriate behavior. The parent who has been taken aback by the complete nonchalance with which a three-year-old sheds all his clothes in the front yard needn't for a moment fear that this means that the same child at twelve or fourteen will

go flaunting himself about in immodest clothing. By the time a child is ten or eleven (or even earlier) he has had society's taboos impressed upon him in so many ways that there is almost more danger of his being *over*-modest than otherwise.

Another reason for a child's lack of questions may be that he has found that his mother was likely to say, "Oh, that's something you're not old enough to understand," to many of his inquiries. It doesn't take long for a child to feel, "Oh, what's the use!" if he finds that his parents are impatient or evasive in response to his curiosity. Again, some parents just don't converse much with their children. If there isn't a natural, free flow of conversation between mother and child, many opportunities will be lost because the habit of talking over anything and everything puzzling or interesting is not established. Still other children don't ask questions simply because they are not very observant, or because their interest has never happened to light on subjects connected with sex.

Because a child does not ask questions doesn't excuse his parents from the responsibility of finding occasions to acquaint him with the kind of facts he needs to know. It means instead that the parents of these children must ready themselves to take whatever chance opportunities

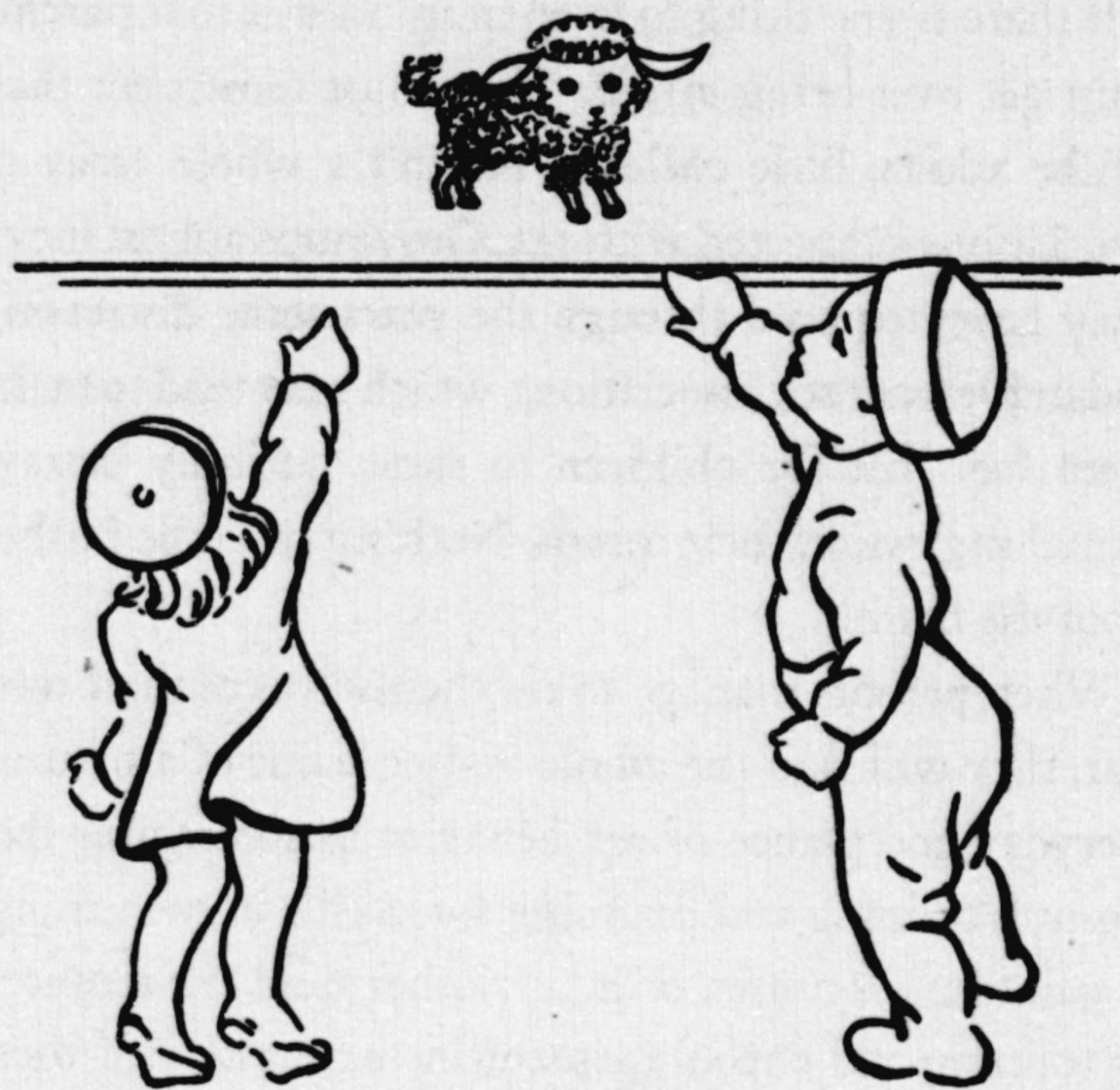
there may be to give desirable background information. It means that parents must scrutinize their own attitudes and behavior to see if they themselves have any inhibitions that are causing the child to feel stiff and awkward about approaching them.

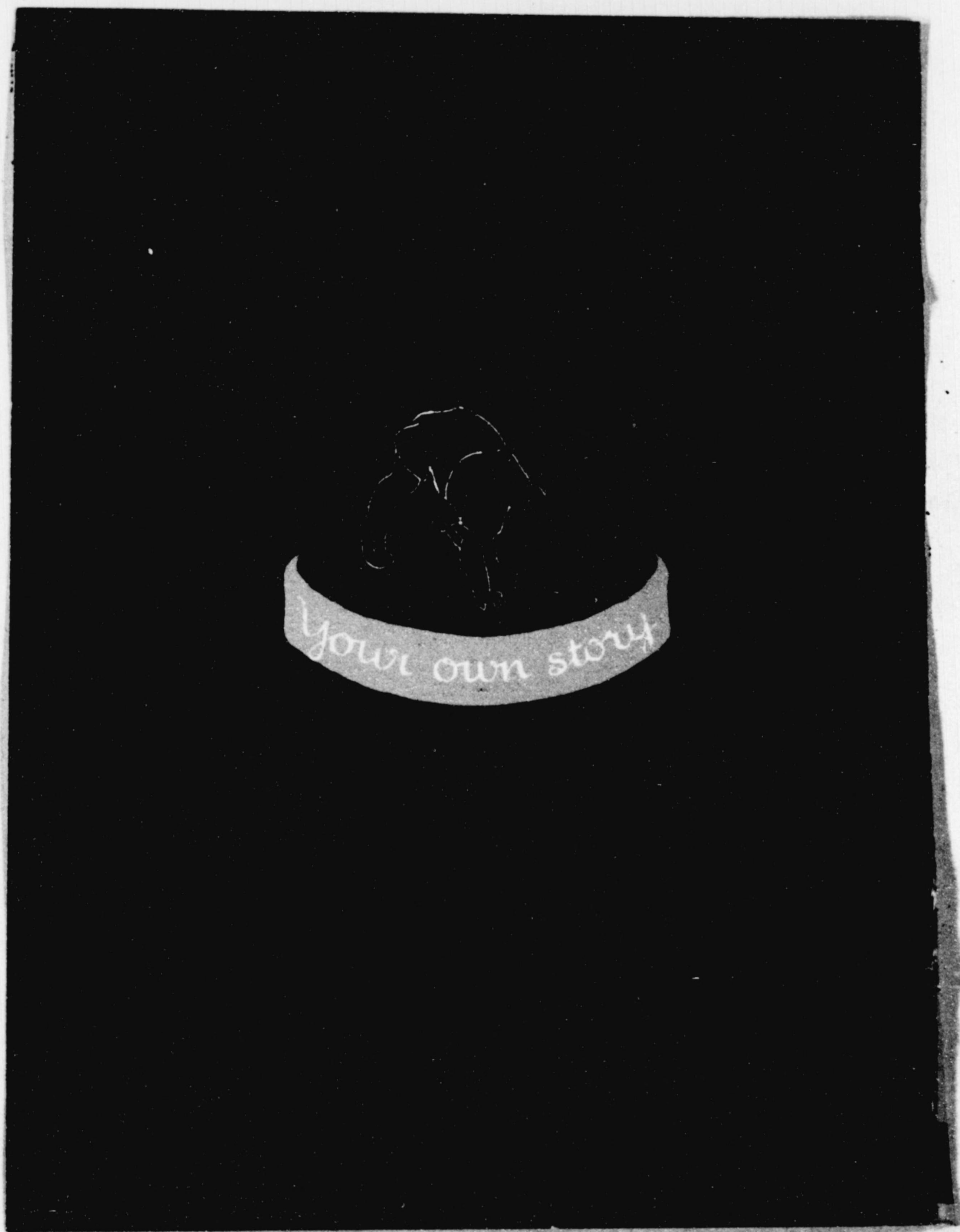
THE PARENTS' MENTAL HEALTH IS MOST IMPORTANT

If there is one thing to keep in mind it is that parents must get over being *afraid*. They must remember that, unlike adults, little children haven't a whole array of associations connected with sex. Grownups almost inevitably have acquired through the years some distressing and unpleasant sex associations, which may tend to make them feel that for children to show curiosity betrays something evil in their minds. Nothing could be farther from the truth.

When parents manage to rid themselves of their own fear, they will find the whole matter is one of a natural, everyday acceptance of sex behavior as something that requires training and planning for. Skills in swimming, in painting, in music, or in any other field are acquired by training and encouragement in the mastery of these abilities. Skill in living demands that we know something about our deep needs and how they are satisfied,

so that we may better understand and get along with other people. A child's parents should be constantly trying to qualify themselves to furnish the best guidance they can in the precarious but fascinating business of growing up.




Your own story

Standards and Recommendations For Hospital Care Of Newborn Infants

Full-Term and Premature

Bureau Publication 292

United States Department of Labor

Children's Bureau

1943

LETTER OF TRANSMITTAL

United States Department of Labor,
Children's Bureau,
Washington, March 5, 1943.

Madam: There is transmitted herewith a bulletin, Standards and Recommendations for Hospital Care of Newborn Infants, Full-Term and Premature.

The bulletin was written by Dr. Ethel C. Dunham and Dr. Marian M. Crane of the Division of Research in Child Development of the Children's Bureau, under the general supervision of Dr. Katherine Bain, director of that Division. The manuscript was reviewed by three committees of physicians; namely, the Bureau's advisory committee of obstetricians, its advisory committee of pediatricians, and the American Academy of Pediatrics committee on the fetus and newborn infant.

Respectfully submitted,

Katharine F. Lenroot, *Chief.*

Hon. Frances Perkins,
Secretary of Labor.

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Standards and Recommendations for Hospital Care of Newborn Infants

In the present war emergency provision of adequate hospital care for newborn infants is becoming more and more of a problem. With the increasing demand for hospitalization of maternity cases, especially in defense areas, hospital nurseries are overcrowded, with a resulting increase in the hazards to the infants The fate of newborn infants depends largely upon the medical and nursing care they receive, and, on account of the wartime shortage of professional personnel, it is becoming increasingly difficult for many hospitals to maintain the high standards that have been developed in recent years for the care of newborn infants.

To assist hospitals in modifying some of their procedures while maintaining the recognized standards, this pamphlet presents a statement of such standards, representing in general the consensus of present pediatric opinion, along with certain recommendations that may be helpful in the hospital's efforts to maintain these standards under wartime conditions.

The standards presented here are not minimum standards, pointing out the least that can be done for infants in hospital nurseries without jeopardizing their lives. Rather they are standards pointing out the type of care for such infants that will best safeguard their health.

It is realized that many hospitals may not be able to attain all these standards at once, especially during the wartime emergency. It is expected, however, that such hospitals will find this statement of standards useful in evaluating their present methods of care and the adequacy of their equipment and in setting a goal for future attainment.

MEDICAL SERVICE

The medical staff for the nursery service should be so organized that it will be the duty of one physician, or a committee of physicians, to maintain standards for the care of all newborn infants. Close cooperation should be maintained between the physicians caring for the mothers and those caring for the infants.

A physician with special training and experience in the care of newborn infants should serve as chief physician to the nursery service. He should visit the nursery at regular intervals, should be available for consultation, and should conduct ward rounds and staff conferences in relation to problems concerning the newborn infants. With the cooperation of the obstetric

service, he should outline a plan for care, the details of which should be made available in written form for the use of physicians and nurses. He will be responsible for analysis of records to determine the causes of morbidity and mortality among both full-term and premature infants; for making such data available promptly to the hospital authorities; and for holding regular clinical-pathological conferences.

There should be at least one physician, preferably a resident physician, assigned to the nursery, who will be on call day and night. He should visit the nursery at least once a day.

A physician should examine each infant on admission to the nursery and before discharge, and at other intervals as indicated. Careful records of each infant's clinical course should be kept.

NURSING SERVICE

If the quality of nursing care is to be maintained in spite of war-emergency conditions, it is necessary that hospitals study and evaluate their nursing procedures with a view to making the most economical use of nursing time without lessening the adequacy of the care given.

The procedures described in this bulletin have been planned in an effort not only to improve the care given to newborn infants but also to promote economy in the use of nursing time. It is hoped that many hours of such time will be saved through the recommended modifications in procedure, such as omitting from the delivery-room routine the weighing, measuring, and oiling of the infant; omitting the bath for the first week or 10 days of the infant's life; lengthening the intervals between weighing; reducing the number of garments put on the infant; substituting care at the individual bassinet for the use of common bathing and dressing tables; and assigning nonprofessional duties to workers other than nurses.

The staff [1] of the nursery unit should be under the supervision of a graduate nurse with advanced training in the care of newborn full-term and premature infants. The less well qualified the staff, the greater the need for expert supervision.

It is recommended—

That all graduate and student nurses and auxiliary workers, before being assigned to a nursery unit, should have had supervised pediatric experience, and should have demonstrated aptitude for such work.

That the care of premature infants be entrusted to graduate nurses only, or, if this is not possible, only to student nurses who have had training in the care of such infants.

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[1] In the preparation of standards and recommendations with regard to the nursing staff the following publications have been consulted: Manual of the Essentials of Good Hospital Nursing Service (1942, 202 pp.) and Administrative Cost Analysis for Nursing Service and Nursing Education (1942, 50 pp.), both published by the American Hospital Association and the National League of Nursing Education, New York, and Distribution of Nursing Service During War (1942, 23 pp.), published by the National Nursing Council for War Service, New York.

That graduate and student nurses and auxiliary workers assigned to the care of newborn infants have no other patients—adults or children—under their care.

That no one—graduate or student nurse or auxiliary worker—be assigned to the care of newborn infants (1) unless approval of such assignment has been given by the hospital's employee-health service, or, in the absence of such a service, by a physician authorized by the hospital to approve such assignments, and (2) unless the worker's previous assignment has been on a noninfectious service.

Graduate nurses.—Efforts should be made to staff the nursery unit in such a way that the proportion of graduate nurses to other workers—student nurses and auxiliary workers—will be as large as possible.

Day and night, there should be at least one graduate nurse with advanced training and experience in the care of newborn full-term and premature infants assigned exclusively to the care of such infants or the supervision of their care.

Student nurses.—If student nurses are assigned to the care of newborn infants they should have had previous supervised pediatric experience.

Auxiliary workers.—Although the ideal nursery staff is made up of either all graduate nurses or graduate nurses assisted by student nurses, the present war situation has made it necessary to consider supplementing the services of graduate and student nurses with those of auxiliary workers.

It is recommended that auxiliary workers, compensated or uncompensated, be assigned so far as possible to nonprofessional duties. If assigned to the care of newborn infants they should have had instruction and supervised experience in the nursing care of children, during which time they should have demonstrated ability, interest, and a sense of responsibility. Their duties should be clearly defined; they should be adequately supervised, and the work assigned to them should be commensurate with their training.

In planning for the use of part-time workers it should be remembered that the fewer the workers that enter a nursery the less is the danger of introducing infection.

Ratio of nurses to infants and hours of nursing care.—At least 3 hours of nursing care per 24 hours should be provided for full-term infants and 6 hours for premature infants. This will require that at all times, day and night, nurses (or nurses and auxiliary workers) be provided in the ratio of at least one for each eight full-term infants and at least one for each four premature infants.

NURSERY UNIT [2]

Nurseries

In every hospital with a maternity service there should be provided at least one nursery for well infants and at least one separate nursery, the so-

[2] The term "nursery unit" is used here to include the nursery or nurseries proper and all accessory rooms adjacent to them and used in conjunction with them. The term "nursery" is used solely for a room in which infants are housed.

called "suspect nursery," for infants under observation either because they have been exposed to infection or because it seems likely that they are developing an infectious condition. Except in small hospitals, in which fewer than four premature infants are expected to be under care at one time, there should be at least one separate nursery for premature infants. Provision should be made also for space remote from the nursery unit for the care of infants who are ill and for infants who, though not born in the hospital, are admitted in the early weeks of life.

Size and Construction

It is recommended that each nursery house relatively few infants (1) because it is recognized that individual care of each infant is desirable and that the smaller the number of infants that are cared for in a given space the less the danger of infection and (2) because the fewer the number of individuals entering a given room the lower the bacterial count of the air.

For these reasons a standard has been set of one nursery for each eight full-term infants, the maximum number that one nurse can care for satisfactorily. (See Nursing service, p. 2.)

Since premature infants require more nursing care than full-term infants, a standard has been set of one nursery for each four premature infants, the maximum number that one nurse can care for satisfactorily.

In small hospitals, in which it is anticipated that less than four premature infants will be under care at any one time, space for premature infants should be provided in the nursery for full-term infants, rather than in a separate nursery. Suitable environmental temperature and humidity may be maintained for these infants by use of incubators or heated bassinets.

The suspect nursery should contain not more than three bassinets. One bassinet in the suspect nursery should be provided for each five bassinets in the nursery for well full-term infants. (Even the smallest hospital should have at least two bassinets for suspect cases.)

The suspect nursery should be completely separated from the nurseries for well infants.

For the care of infants that are ill, isolation facilities should be provided in a part of the hospital remote from the maternity unit. Even in small hospitals the suspect nursery should not be used for infants who have conditions that have been definitely diagnosed as infectious.

The nurseries for full-term and for premature infants should be located near the maternity ward, but out of line of traffic from other services. There should be outside windows to admit daylight and sunlight. Provision should be made for controlling the sunlight in hot seasons and hot climates.

In the planning of a nursery consideration should be given to the amount of air space and floor space needed for the proper care of each infant. The floor space should be sufficient (1) to permit each bassinet to be separated from any other bassinet and from any wall or partition; (2) to

provide room for the needed furniture and other equipment, including that needed for bedside care of each infant; and (3) to permit attendants to give bedside care to each infant and to pass easily from bassinet to bassinet.

It is recommended—

That the total nursery space be adequate to provide an *average* per infant of 300 cubic feet of air space and 30 square feet of floor space.

That bassinets be separated by partitions forming cubicles, each cubicle sufficiently large so that the bassinet will stand at least 6 inches from any wall or partition and so that there will be at least 2 feet of floor space beside each bassinet to permit bedside care. Even if the bassinets are not separated by partitions, these same space measurements are recommended.

That aisle space at least 2 feet wide—preferably 3 feet—be planned, to provide a passageway for attendants.

For each suspect nursery, a minimum of 40 square feet and 400 cubic feet should be provided for each bassinet. This will give adequate space not only for bedside care but for bedside treatment.

Control of Atmospheric Conditions

Adequate ventilation and control of temperature and humidity contribute to the welfare of newborn infants, especially premature ones. The ideal arrangement is complete air-conditioning.

It is recommended that the nurseries be equipped with complete air-conditioning; that is, controlled temperature, humidity, and air motion; that the air be filtered and that it be sterilized by ultraviolet light or by some other method.

In plans for new hospitals, if installation of air-conditioning is not possible at the time of construction, space for ducts at least should be provided, so that later installation of air-conditioning will be facilitated.

In the absence of air-conditioning, windows or air ducts must be depended upon as the source of fresh air, and they should be so arranged that there will be circulation of air without drafts around bassinets. The air current should be directed so that it will not strike the infants. Partitions forming cubicles should reach only part way to the ceiling so as to allow for ventilation. There should be thermostatic control of room temperature. Sterilization of air at entrances to cubicles provides added protection. For premature infants, who require relatively high temperature and humidity, the environment may be controlled by the use of specially equipped incubators.

Walls, Ceilings, and Floors

The walls, ceilings, and floors of the nurseries and accessory rooms should be constructed of nonabsorbent material that can be washed, and it is preferable to have all corners rounded to facilitate washing. Soundproofing is desirable. As was previously stated, it is recommended that partitions be placed between bassinets and that the partitions in non-air-

conditioned nurseries should reach only part way to the ceiling so as to allow for ventilation. A section of each partition, extending about 18 to 24 inches above the bassinet level, should be transparent in order to permit the nurse to view all the bassinets from her station.

A viewing window should be provided between each nursery and the nurses' station, and one between each nursery and the corridor so that relatives may see the infants without coming in contact with them.

Furnishings and Equipment

Bassinets.—Each bassinet should be of the type that consists of a single metal stand with a steel-band basket, which is removable to facilitate cleaning.

Bedside tables.—A bedside table with a drawer and a lower compartment with a shelf and a door should be furnished for each bassinet, to serve as a work table and as a cabinet for storage of a 24-hour supply of equipment needed for care of the infant. The top of the table should be about 16 inches by 20 inches.

Lavatories.—In each nursery there should be a lavatory with hot and cold running water. Faucets should have knee or foot control.

Diaper cans.—In each nursery there should be at least one metal sanitary can for diapers, with the top controlled by foot pedal. Removable paper bags for lining this can should be provided.

Linen hampers.—In each nursery there should be at least one hamper with removable bag, for soiled linen other than diapers.

Incubators.—Nurseries where premature infants are expected to be cared for should have incubators. The incubators may be either commercial or home-made. They should conform to specifications that have been prepared by the National Bureau of Standards and the Children's Bureau.[3]

Accessory Rooms

Chartroom.—The chartroom should serve as a "control station"; that is, it should be so situated that it serves as the main entrance from the corridor into the nurseries for well infants.

A viewing window between the chartroom and each of the nurseries adjoining it should be provided.

The nurse's desk should be so placed that she will be in a strategic position in relation to the viewing windows and the door from the chartroom to the corridor.

Nurses' work space.—The nurses' work space is a combined supply and utility room. In smaller hospitals the work space may be a part of the chartroom. In larger hospitals a separate workroom should be provided. Its minimum equipment should be: A sink, an instrument sterilizer, a bottle warmer, a table or shelf, and a cupboard.

[3] Dunham, Ethel C., M. D.; H. C. Dickinson, Ph. D.; Grace J. Gowens; and Juanita Witters: Incubators for Premature Infants. American Journal of Public Health, vol. 30, no. 12 (December 1940), pp. 1415–1421.

Examining room.—In order that traffic into the nursery may be reduced to a minimum, it is recommended that an anteroom be equipped as a physicians' examining room.

Between the examining room and the nursery there should be a sliding window or a Dutch door, with a shelf or table in front of the opening to serve as an examining table upon which the nurse places the infant. This will permit the physician to examine the infant without going into the nursery.

The examining room should be well lighted, preferably with natural light in the daytime, and it should be provided with a lavatory, a table for use as an examining table, and a desk.

Treatment room.—In smaller hospitals the examining room may serve also as the treatment room.

In larger hospitals a separate room outside of the nursery unit should be provided as a treatment room for infants other than suspect or isolation cases. This room should be furnished with a treatment table, a lavatory, a small instrument sterilizer, and a cabinet for supplies. It is assumed that solutions and other supplies used in giving treatments will be requisitioned from the general hospital supply room and that instruments and needles suitable for use in treating infants will be made available.

Demonstration room.—Facilities should be provided so that the nurses can instruct mothers, before discharge to their homes, in methods of feeding, bathing, and dressing their infants. In larger hospitals a demonstration room should be provided for this purpose. In smaller hospitals demonstrations may be given in the nursery, in front of the viewing window, to the mothers seated in the corridor. The nurse's instructions may be made audible to the mothers by means of a loud speaker.

Milk room.—The location of the milk room and the supervision of the work of making up the feedings will vary with the type of hospital, its personnel, and its special administrative problems. Under any circumstances it is essential that a separate room be provided for preparing the milk mixtures and that this room be used for no other purpose. The milk room should be situated where the danger of contamination is least and where the most adequate supervision can be given, by a dietitian or nurse who is experienced in milk-room procedures. If the hospital has a dietitian it may be best to locate the milk room near the general diet kitchen and to have the preparation of the milk mixtures supervised by the dietitian.

It is recommended that the milk room be divided into two sections by a partition in which there is a Dutch door, a sliding window, or a sterilizer with doors on each side. This permits the exclusive use of one section of the room for receiving and washing glassware and other utensils used in feeding the infants, and of the other for sterilizing the utensils and for preparing and storing milk and milk mixtures. There should be two Dutch doors on the corridor side of the milk room, one for each of the two sections of the room; one of these doors is for receiving used bottles, the other for distributing sterile feedings.

The minimum equipment of the milk room should be: A refrigerator, a sink, a lavatory, sterilizers, a device for cooling the bottles of milk mixture after sterilization, cupboards, and a work table; all these should be so constructed that they can be readily washed.

Milk-room procedure should be carried out with strictly aseptic technique. Milk mixtures should be poured into sterile bottles. It is recommended that nipples and nipple caps be put onto the bottles in the milk room and that final sterilization of the milk mixtures in the bottles be done by autoclaving. Cooling should be rapid and should be complete before the bottles are placed in the refrigerator. The temperature inside the refrigerator should be between 40° and 45° F.

Nurses and others working in the milk room should wear gowns and surgical caps. It is best that these workers have no other responsibility besides their work in the milk room. During the entire period that these workers are assigned to milk-room duty they should have no contact with patients that have infectious conditions.

TECHNIQUE OF CARE

The nursing procedures to be followed in the care of the infants should be planned jointly by the medical and nursing staffs and should be available in written form to attending and resident physicians and to nurses.

The superintendent of nurses should have the responsibility for seeing that the technique of caring for the infants is carried out.

Certain recommendations in regard to the basic principles of care are made here with full recognition of the considerable diversity of opinion that exists with respect to some of the details of technique.

Delivery-Room Care

The care that the newborn infant receives at the moment of birth and in the period after birth while he is still in the delivery room plays an important role in his future well-being. The abrupt change from uterine to extra-uterine environment requires major adjustments in the infant's circulatory and respiratory systems during the period immediately after birth. Proper delivery-room care, aimed at prompt initiation and maintenance of respiration and carried out in such a way as to conserve the infant's body heat, will facilitate these adjustments.

Preparation for care of the infant in the delivery room should include provision of adequate personnel as well as of suitable environment and equipment.

Staff

It is recommended—

That a nurse trained in the care of newborn infants be assigned to the delivery room, to have as her sole responsibility the care of the infant.

That a physician trained in the care of newborn infants be on emergency call at all times and be present in the delivery room during premature and other abnormal deliveries.

Environment and Equipment

The delivery room should be warm, and the temperature should be maintained at the level considered by the medical staff to be optimum for mother and infant. In addition, the following equipment should be always ready in advance:

- A smooth flannel blanket, in a sterile package, warmed and ready to receive the infant at birth. A heat lamp on a standard is helpful in keeping the infant warm.
- A safe, suitable type of suction device for cleaning the infant's upper respiratory tract of mucus and other fluid.
- An oxygen tank with mechanism for measuring and controlling the amount of gas and with a suitable mask or other device for administering oxygen to an infant.
- Equipment suitable for clamping, cutting, and tying the umbilical cord and for dressing it. It is recommended that the clamping of the cord be delayed until pulsation has ceased, so that the infant may receive the full complement of placental blood.
- Some type of heated bed or incubator—warmed in advance. (See p. 6.)
- Provision for prophylactic treatment of the infant's eyes.
- A supply of vitamin K for parenteral use.
- Some device for identifying infants before they leave the delivery room—beads, footprinting equipment, or other.

It is recommended that the weighing, measuring, bathing, and oiling of the infant be omitted as part of the delivery-room routine. Any of these procedures that the medical staff considers desirable may be carried out later in the nursery after the infant's temperature has become stabilized. Weighing may be necessary to determine an infant's need for special treatment.

Transit From Delivery Room to Nursery

Provision should be made for keeping the infant warm and protected from exposure to infection during transit from delivery room to nursery.

It is recommended that a heated bed or a warm carrier (sometimes called a "hand ambulance") be used for transfer of the infant. If the infant is carried by a nurse he should be wrapped in a warm blanket and the nurse should wear a mask and a gown.

An elevator when used by an attendant transporting an infant should be free of other passengers.

Nursery Care

Environment

Space.

The amount of space needed for the care of the infant is discussed under Nurseries, page 3.

Control of temperature and relative humidity.

It is recommended that the temperature of the nurseries for full-term infants be controlled at about 80° F., day and night, and that the relative humidity be about 50 percent.

For premature infants higher temperature and greater relative humidity may be required. A separate air-conditioned nursery is desirable, but if this is not to be had, proper environmental conditions may be obtained for them by the use of incubators. It is recommended that before an incubator is made or selected, the specifications published by the National Bureau of Standards and the Children's Bureau be consulted. (See footnote 1, p. 6.)

Observation and Examination

The newborn infant should be seen by the head nurse as soon as he is admitted to the nursery. Observations of his condition, as indicated by color, breathing, activity, evidence of bleeding, and so forth, should be made without removing him from his crib.

A physician should see at once every premature infant and any infant in whom the nurse has observed any abnormality.

Every infant should receive a complete examination by a physician as soon as, in his judgment, the infant's general condition warrants it. The examination should be conducted in such a way that the infant's body heat will be conserved.

It is recommended—

That full-term infants be examined by the physician in an anteroom to the nursery, especially equipped for examinations.

That premature infants be examined by the physician in the nursery, the infant remaining in the heated bassinet or incubator during the examination. If treatment of a premature infant is necessary, this also should be done with the infant remaining in the heated bassinet or incubator, if possible.

Special Measures To Protect Infant From Infection

The infant should be cared for in such a way as to guard him against infection. No infant born outside the hospital should be admitted to the nursery for infants born in the hospital. Visitors should be excluded from the nursery.

It is recommended that care be given to each infant at the bedside, with strict aseptic technique. *Common bathing and dressing tables should not be used.*

Hand-washing technique.

Strict hand-washing technique should be maintained by physicians and nurses. Hands should be washed with soap and running water before and after handling, diapering, or feeding each infant. It is especially important that the nurse wash her hands *after* diapering the infant and *before* feeding him. If this technique is to be carried out it is essential that lavatories be conveniently located inside each nursery as well as in each service room.

Gown, cap, and mask technique.

Gowns.—A gown should be worn by anyone working in the nursery. Fresh gowns should be provided daily.

Caps.—If the use of caps is required by the medical staff, they should completely cover the hair.

Masks.—If the use of masks is required by the medical staff, they should be so made that they are effective in preventing droplet infection and they should be changed frequently—at least every 2 hours.

Suspect cases.

Any infant who has such symptoms of infection as loose stools, frequent stools, or fever, or who has eye, skin, vaginal, or other infection, should be removed to the suspect nursery without delay. The head nurse should have the authority to order this on her own responsibility. If the infant is found to have an infectious condition, he must be transferred promptly to an isolation nursery elsewhere in the hospital.

Ritual circumcisions.

Provision should be made to have ritual circumcisions performed elsewhere than in the nursey unit. Aftercare should be given in the suspect nursery because of danger of infection.

General Care

Care of skin.

The proper care of the skin of newborn infants is important in preventing infection. At present the consensus seems to be that the less manipulation the less danger of infection. It is recommended that no water or oil bath be given during the first week or 10 days after birth, and it may be wise to postpone the premature infant's bath for considerably longer. The vernix may be gently wiped away from the folds of the infant's skin with warm sterile mineral oil on sterile cotton or soft sterile gauze. Each time the diaper is changed, sterile oil should be applied to the soiled or wet areas of the skin.

The oil for the infant's skin should be kept in a sterile glass container. Before oil is applied, a small amount should be poured into a dish into which a piece of cotton can be dipped easily. Any oil remaining after use should be thrown away.

Care should be exercised to keep the cord dressing and umbilical area sterile. The binder used to hold the cord dressing in place should be made of soft, sterilized gauze.

Diapers and other clothing.

It is recommended that only one piece of clothing besides the diaper be worn—a gown open in the back—cotton in summer, flannel in winter. The diaper should be of soft material.

For premature infants under suitable environmental conditions, the same type of gown should be used. Diapers should not be used for premature infants; a small pad of absorbent cotton or disposable tissue, covered with gauze, should be placed under the infant to serve as a diaper.

A 24-hour supply of clothing should be kept at the bedside.

Bedclothes.

A 24-hour supply of bed pads, sheets, and blankets should be kept at the bedside.

Taking infant's temperature.

It is recommended that each infant's thermometer be kept at the bedside in a suitable container.

It is recommended that consideration be given by the medical staff to taking the temperature by axilla in suitable cases.

It is recommended that in suitable cases (normal infants) the temperature be taken not oftener than twice a day.

Weighing infant.

Each infant should be weighed in his blanket at the bedside. The scale pan should be freshly covered with paper for each infant. It is recommended that the scales be kept on a table with wheels, so that they may be moved easily from bassinet to bassinet.

It is recommended that well infants be weighed daily for the first 4 days; then only every other day, or, in some cases, only twice a week.

Feeding

It is recommended that efforts be made to have every mother of a full-term infant nurse him. The efforts should include encouraging the mother's cooperation, withholding artificial feeding even in the presence of early weight loss (provided this is not excessive), giving only water until the mother's milk begins to come or until it is evident that the mother is not going to be able to supply an adequate amount of breast milk.

It is recommended that no premature infant be put to the breast without an order from the resident physician. It is recommended that for premature infants every effort be made to maintain the mother's milk supply and to have the infant nurse as soon as he is physically able.

Whenever any infant is being fed from a nursing bottle the bottle should be held, not propped.

Technique of breast feeding.

Preparation of mother.—It is recommended that the nursing mother wear a nightgown that opens in front; that her hands be washed with soap and water before nursing and her breast be washed before and after nursing; that the baby lie on a clean paper or cotton towel during nursing; that all visitors, even members of the family, be excluded while the mother is nursing the infant.

Transportation of infant to mother.—The infant should be wrapped in a blanket and carried to the mother by a nurse who wears a gown and a mask, or wheeled in his own bassinet.

Expression of breast milk.—If an infant cannot nurse, particularly a premature infant, the mother's milk should be expressed and fed to him. Since

opinions vary in regard to techniques for expressing breast milk and for storing it, those approved by the medical staff should be set down in writing and closely followed.

Milk mixtures.

The formula for the milk mixture ordered by the physician for each infant should be in writing, and any changes should also be in writing.

The 24-hour supply of milk mixture should be stored in the milk room.

The bottles for each feeding, with sterile nipples and sterile caps on them, should be sent to the nursery from the milk room at the feeding hours.

Milk mixtures should *not* be poured into nursing bottles from a larger utensil in the nursery or in the workroom.

There should be provision for warming the bottles in the nursery unit.

Nipples should *not* be handled by the nurse who feeds the infants.

Used bottles, nipples, and caps should be returned to the milk room after each feeding.

Drinking water.

It is recommended that sterile water be given to normal infants between feedings at least twice a day; in very warm weather oftener.

Supplies

Equipment for special treatments.

It is essential that a suitable suction device, a supply of oxygen, and suitable apparatus for administering oxygen, be always at hand.

It is recommended that special needles, tubing, glassware, and other equipment suitable for use for newborn infants be kept in the workroom in sterile packages, ready for emergency use for infusions, transfusions, lumbar punctures, and so forth.

Linen.

Clean linen should be delivered to the nursery unit each morning in an amount to last 24 hours.

It is recommended that the supply of linen for each infant be prepared in the laundry in three packages: (1) diapers, (2) bed clothes, (3) clothing.

Oil.

Fresh sterile oil should be supplied daily in small glass sterilized containers.

Cleaning Nursery Unit

No dry dusting or cleaning in a nursery unit should be allowed; walls, floors, and ceiling, as well as furniture and other equipment, should be washed. Maids should wear gowns, caps, and masks while cleaning.

Care of Soiled Linen

It is recommended—

That soiled diapers be placed in a special diaper can, separate from the hamper for soiled clothing and bed linen.

That all soiled linen be collected at least twice a day—preferably oftener.

That the diaper can and the soiled-linen hamper be put outside the nursery by the nurse so that the collector need not enter the nursery.

That diapers and other soiled linen be taken to the laundry without being removed from their respective containers.

That diapers and other soiled nursery linen should be washed separately from each other and from other hospital linen. Special care is needed in the washing so that the garments will remain soft and will be free from any substance that might irritate the infant's skin, such as strong soap or chemical.

Rules for laundering—making up the packages, sterilizing (preferably by autoclave), and delivering them to the nursery—should be worked out with the medical, nursing, laundry, and administrative staffs of the hospital. (See also Supplies, p. 13.)

Records

It is recommended—

That there be a clinical record for the infant, separate from the mother's.

That the mother's hospital number be entered on the infant's record so that information pertinent to the infant's welfare will be available in regard to the circumstances of pregnancy, labor, and delivery.

That complete daily records of the infant be kept—medical and nursing.

Preparation for Discharge

Before she leaves the hospital the mother should be instructed in regard to the care of her infant, including maintenance of her breast-milk supply. For mothers who need such services, arrangements should be made with a public-health-nursing agency for early and continued instruction of the mother at home.

Consideration should be given to the home situation (including a visit to the home if necessary), in regard to such matters as—

The health of the other persons living in the home.

Whether the mother will be able to care for the infant herself.

Whether the housing arrangements are suitable for care of the infant.

Whether the parents are financially able to provide proper food, clothing, and other essentials for the infant.

If the home situation is unsuitable for the infant, arrangements should be made with a family-service agency or other agency to assist in preparing the home for the infant and to help in making necessary adjustments.

If, after discharge from the hospital, the infant is not to continue under the care of the same physician who cared for him in the hospital, the family physician or a community agency should be notified that the infant is to be discharged, so as to insure continuous medical supervision for the infant, including supervision of diet and hygiene, and medical care.

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UNITED STATES DEPARTMENT OF LABOR
FRANCES PERKINS, Secretary
CHILDREN'S BUREAU • KATHARINE F. LENROOT, Chief

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The Child-Health Conference

Suggestions for Organization and Procedure

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CONTENTS

	Page
Introduction	1
Functions of conference	1
Community responsibility for child health	2
Relation of child-health conference to local and State health departments	2
Local situations affecting the organization of a conference	2
Organizing the conference	4
In an area having a full-time health department	4
In an area having a part-time health department	5
In an area having no organized health department	6
The conference center	7
Division of space in conference center	7
Preparation of conference center	8
Reception and waiting room	8
Weighing and measuring room	10
Physician's consultation room	11
Regularity and frequency of conferences	14
Appointments for examination	15
The conference staff	16
The public-health nurse	16
The volunteer helpers	18
The conference physician	19
The nutritionist	28
The dentist	29
The social worker	30
Procedure for mother and child visiting the conference	31
In the reception and waiting room	31
In the weighing and measuring room	32
In the consultation room	33
Examinations, immunizations, and tests needed	34
Medical examinations	34
Screening tests for vision and hearing	34
Urinalysis	35
Dental examination	35
Immunization	35
Record forms and record keeping	37
Appendix A.—Suggestions for organization and functions of local conference committee	38
Appendix B.—Sources of posters	42

THE CHILD-HEALTH CONFERENCE

INTRODUCTION

Functions of Conference

The purposes of the child-health conference are to educate parents in better methods of child care and to provide or stimulate the provision of continuous health supervision for all children of the community from birth through school age. Being part of a broad public-health education program, the service of the child-health conference, particularly in rural areas, should be available to all parents whose children are not under the supervision of a private physician. *Its function is to keep the well child well and to promote his best possible state of health.*

The plan for the accomplishment of these purposes includes: (1) Review of the child's physical and mental health record and examination of the individual child by a physician at regular intervals; (2) the physician's conference with the mother, at which he discusses with her all aspects of the child's health and development, advising her regarding the child's special needs, including the correction of any abnormal conditions, the solution of behavior problems, and the performance of accepted immunization procedures; (3) service at the conference by the public-health nurse, and when feasible, although not necessarily at every conference, by nutritionist and dentist; and (4) follow-up service by the public-health nurse and, as needed, by other specialists such as the nutritionist, social worker, and child psychiatrist, when these workers are available.

Community Responsibility for Child Health

While it is well recognized that the health of the individual child is the responsibility of his parents, parents must have an understanding of the fundamentals of child health in order to discharge that responsibility. In addition to the necessary knowledge they must have access to facilities for the protection and promotion of child health. Many parents have no way to acquire the needed knowledge of child care, nor have they access to the necessary health facilities except by means of provisions made through organized community resources.

The organization policy for the child-health conference should be to bring together in a cooperative community undertaking the public and private health, education, and welfare agencies that are interested in child health so as to eliminate duplication of expense and to develop unity of service.

Relation of Child-Health Conference to Local and State Health Departments

A child-health conference in a district, county, city, or town having a public-health department is developed as part of the local public-health program under the supervision of the local health officer. The State health department can assist also with organization and supervision through the professional staff of its maternal and child-health division and by provision of literature and exhibit material. The local health department or, if there is none, the local organizing group will obtain full information on the assistance that is available from the State department of health and take advantage of all it has to offer.

Local Situations Affecting the Organization of a Conference

In both rural and urban areas the various community situations that need to be considered when establishing a child-health conference are:

A. A district, county, city, or town having a well-developed health department with a full-time health officer, which assumes full administrative responsibility for the conference.

B. A district, county, city, or town having a health department with a part-time health officer and a public-health nurse, where a local voluntary agency or group of individuals takes the initiative in organizing and conducting the conference.

C. A district, county, city, or town having no organized health department but having a public-health nurse, where a local voluntary agency or group assumes responsibility for the conference.

A county or a community without a public-health nurse should not attempt to organize a child-health conference. Conferences without public-health-nursing follow-up service are of doubtful value.

ORGANIZING THE CONFERENCE

With conditions differing as they do in communities throughout the country, it would be impossible to offer suggestions for the organization of child-health conferences that would meet the requirements of all situations. It is the purpose of this outline to present the fundamental principles of the organization of a conference with suggestions for working them out in certain situations. The details of organization procedures in each locality will need to be developed according to the local requirements.

A. In a district, county, city, or town having a well-developed health department with a full-time health officer, which assumes full administrative responsibility for the conference.

A child-health conference in such a community is organized by the health department and conducted under its supervision. As it is a combined public-health, medical, and community undertaking, the cooperation of local physicians and the support of intelligent, interested, and representative community groups and individuals is necessary. To gain such support for their programs many health departments have developed community health councils which serve the needs of child-health conferences as a part of the whole health program. (See appendix A, p. 38.)

Where child-health conferences are being established for the first time, the health officer will probably wish first to discuss the proposition fully with the local physicians and gain their support for the undertaking. Where there is a community health council the matter would then be taken up with that group for the purpose of discussing the need for the proposed conference, its functions, and the local resources and facilities available for its maintenance and operation. In some cases it may be wise to have a subcommittee of the health council appointed to study the matter and assist the health officer with the details of organization and conduct of the conference.

In communities where there are pediatricians or physicians giving special attention to pediatrics, their advice will be particularly helpful in the planning and their services should be obtained, if possible, to conduct the medical conferences.

B. In a district, county, city, or town having a health department with a part-time health officer and a public-health nurse, where a local voluntary agency or group of individuals takes the initiative in organizing and conducting the conference.

The realization of the need for the conference in such communities usually originates within the community. Whatever the origin of the initial action, the official county or local health department should be consulted early in the planning, and in turn the health department should give all possible assistance. Where the promotion is done by local groups, the public-health nurse usually provides leadership in organizing the conference, with the local health officer and local physicians represented on the organizing committee. The State department of health should be consulted regarding the assistance it can give.

When the health officer and local physicians are thoroughly familiar with the proposal and have agreed to give their support, a meeting of local groups representing the community to be served by the conference may be called for the purpose of discussing the need for the proposed conference, its functions, and the local resources and facilities available for its maintenance and operation. The nonofficial or voluntary agencies, including the local medical and dental associations, nursing groups, voluntary health and welfare groups, parent-teacher associations, men and women's civic and service clubs, churches, and other organized groups of citizens are invited to participate in the organization meeting. The local board of education should be represented. Local boards that are responsible for the expenditure of public funds for health and welfare are urged to attend, and the economy of providing services for health education and prevention of disease should be called to their attention. A careful inventory is taken of the assistance that can be given by each group represented.

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If the group agrees on the desirability of proceeding with the establishment of a conference, an organizing committee is appointed.

C. In a district, county, city, or town having no organized health department but having a public-health nurse, where a local voluntary agency or group assumes responsibility for the conference.

The procedure here would be similar to that described under *B*, except that there would be no health officer to assist. It is emphasized that where conferences are being organized by voluntary agencies, there is need for medical counsel all along the way.

Before the service is undertaken a local conference committee should be appointed by the sponsoring agency and the cooperation of local physicians should be assured.

For a discussion of the organization and functions of the local conference committee see appendix A, p. 38.

THE CONFERENCE CENTER

In planning for a child-health conference, early consideration should be given to the conference center. In a county or community having an established health center or having available the office of the public-health department, the conference would naturally be held there if it is conveniently located for the majority of mothers who will bring their children. In larger communities a location convenient to families of low income is important. Communities of more than 10,000 population will need more than one conference center to give adequate service.

Certain minimum requirements for the conference are mandatory in even the smallest rural community; in the following pages *these requirements will be italicized*. Beyond this there can be such expansion as funds will allow for meeting further needs and providing additional conveniences.

In small communities a *centrally located place* is best for the conference center. Where possible, rooms on the ground floor are obtained, with facilities for *light*, *ventilation*, *heat*, running water or *convenient water supply*, and with windows and doors well screened in warm weather. *Safe drinking water and paper cups*, and a *toilet* which is in sanitary condition are essential. There should be no hazard to the safety of small children in or about the building. In a town where mothers will walk to the center, a protected space for baby carriages is needed.

Division of Space in Conference Center

Many types of quarters are used for conference centers, such as hospitals, schools, libraries, and clubrooms. Space and facilities for the conference will vary with the community to be served. When the attendance is too large to allow adequate service in small quarters, this difficulty can be met by holding conferences on two successive days or in two successive weeks, adhering in either event to a definite regular day and hour.

It is desirable to have three rooms: one for a reception and waiting room; one for undressing, weighing, and measuring; and one for the physician's consultations. Where only two rooms are available, one of these may be divided by screens or a curtain. Similarly when a single large room must be used, some *privacy* for history taking, for weighing, and for the examination can be provided by means of screens or curtains. A quiet corner of the waiting room is selected for history taking, arranged so that the mother sits at one side of the nurse's table with her back to the waiting group; a screen will provide further privacy. This same corner can be used for the nurse's conference with the mother.

The rooms used for undressing and examination should be provided with *heat* and, if possible, with running water, and the room in which immunizations are done must have *means for sterilizing equipment.*

Preparation of Conference Center

Well before the time for the conference to open, the rooms are made ready for use. In cold weather the waiting room is kept at a temperature of 70° to 72° F. and the weighing and measuring room and the consultation room at about 74° to 76° F. It is important to arrange ventilation throughout so as to avoid drafts. The nurse will make a final inspection of each room and of all equipment to be sure that everything is in its place and ready for use.

The conference rooms are made as inviting and attractive as possible. Clean light-colored walls, bright-patterned curtains, and suitable posters (see appendix B, p. 42) help to accomplish this. Needless to say the rooms are kept clean and in good order at all times.

Reception and Waiting Room

Room is needed to seat comfortably as many adults and small children as are expected to be present at one time, with space also for a desk and two tables.

Equipment (Essentials are in *italic*)

A desk or writing table for use in taking histories; blotter, pen, ink, pencils, paper clips, and scratch pad.

Record file for conference cases. This may be only a box or other small compartment for keeping records.

Infant and preschool record forms.

Telephone.

A table for exhibit material.

Chairs or benches.

Several small chairs, a low table, and large washable toys for children.

Hooks on the wall for wraps.

Clock, wall thermometer, and wastebasket.

A blackboard for teaching purposes.

Educational Material.

Exhibits.

Excellent use can be made of good exhibit material, and this phase of the conference service is worth considerable thought. The material could be made up by local groups under the direction of the public-health nurse. It might include demonstration material pertaining to both mothers and children.

For the baby.—A layette, utensils used in preparing milk formulas, approved infant garments, bath equipment, a miniature baby bed, display of foods for children of various ages.

For the child of preschool age.—Proper clothing, toys, especially home-made toys, and appropriate picture books.

For the mother.—Approved garments for the expectant mother, obstetric supplies, a miniature obstetric bed, and display of foods for the expectant mother.

To be most effective, an exhibit is limited to a single subject, a new exhibit being shown, if possible, at each conference session. For example, one exhibit might include the utensils used in preparation of milk formulas; another exhibit might be clothing appropriate to the season, such as winter clothing for the baby and the child of preschool age, out-of-door play suits, and clothing for the baby's out-of-door nap in cold weather; or foods needed for an adequate diet during pregnancy or during the preschool age.

All exhibit materials should be clearly labeled and kept fresh and clean.

It is important to make all exhibits *practical* for the group to be served.

Some State health departments have exhibits for loan.

Posters.—The best obtainable posters on maternal and child-health subjects should be procured. (For suggestions see appendix B, p. 42.)

Literature.

A supply of *all the literature pertaining to maternal and child health* distributed by the State department of health should be available. The Children's Bureau, U. S. Department of Labor, Washington, D. C., will supply lists of its publications, some of which can be obtained without charge. These publications are not to be placed where they can be taken indiscriminately; they are given out by the nurse to provide information on specific questions. It is important to have literature printed in the language spoken by groups attending the conference.

Play Space for Children.

When a very large room is available, a good play space for little children can be made in the center or in one corner of the room by placing chairs or benches together facing outward. These seats can be used by the mothers if desired. The play space may contain a low table, small chairs, and toys. Noisy toys are best avoided. Where a trained play supervisor is available she could be helpful in demonstrating the proper handling of children.

Weighing and Measuring Room

It is convenient to have the weighing and measuring room between the waiting room and the physician's room. A space of about 8 feet by 10 feet is needed, *well lighted and ventilated, heated in cold weather, and free from drafts.*

Equipment (Essentials are in *italic*).

Closet or wall cabinet for supplies.

A *table* about 60 inches by 30 inches, or 2 smaller tables for scales and measuring board.

Two tables for the convenience of the mothers in undressing and dressing the babies, *or*

A shelf about 30 inches deep by 48 inches long, with ends about 12 inches high, and divided into two equal compartments by a partition of the same height. This makes a convenient arrangement for undressing and dressing the baby. Two such shelves would be adequate for both undressing and dressing. Similar cubicles with a back the height of the partition can be made by a carpenter to fit over the top of a kitchen table. These have the advantage of being portable.

Baby scales.—Balance platform type.

Measuring board or *stationary tape measure* on the table.

Standard platform *scales* and *measuring rod* for older children. In case there is no measuring rod on the scales a metal tape line secured straight and flat against the wall will serve. It should be attached at a point where there is no molding at the contact angle of wall and floor.

A desk or small table for use in recording; pen, ink, pencils, and scratch pad.

Clinical thermometer.

Four chairs.

Wall thermometer.

Wastebasket or pillowcase on chair back or large paper bag for paper that has been used on the scales.

Supplies (Essentials are in *italic*).

Pads about 16 inches by 30 inches for measuring and dressing tables with rubber sheeting or oilcloth slip cover for each.[1]

Several baby blankets for mothers who may come unprepared.

Scale paper,[2] *soft paper towels, or sheets of tissue paper for baby scales, measuring board, and dressing and undressing tables.*

Safety pins.

Baskets, shopping bags, or large paper bags for carrying clothing while child is undressed. Mothers ordinarily should supply their own.

Physician's Consultation Room

Minimum size of room needed is about 6 feet by 8 feet. *Good light* (natural light if possible) and *heat* in winter are essential.

Equipment (Essentials are in *italic*).

Examining table. A shelf underneath is a convenience.

Steel *tape measure, otoscope, stethoscope, flashlight,* and percussion hammer if not provided by physician. An extra battery for the flashlight should be on hand.

Table for trays, and for pen, ink, *pencils,* laboratory blanks, scratch pad, *sample diet lists, leaflets, and literature,* and printed or typed instructions for mothers.

Posture charts.

Samples of proper shoes for infant and preschool child.

Chairs.

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[1] Made like pillowcasing and left open at both ends. This has the advantage of completely covering the pad and it will not slip out of place on the table.

[2] Paper that has been sized so as to be semiresistant to moisture, such as the paper used by retail meat dealers.

Blanks for report to family physician or specialist or to clinic if family has no regular physician, on abnormal conditions found on examination.

Bowl with hot and cold running *water*. If this is not available, *a basin and pitcher*, *hot plate* for heating water, and *pail* for waste water. *Soap*.

Closet or wall cabinet with lock for supplies.

Wall thermometer.

Wastebasket or large paper bag for waste.

Supplies (Essentials are in *italic*)

Pad, or blanket, about 16 inches by 30 inches, for examining table, with rubber sheeting or oilcloth slip cover.

Scale paper, *soft paper towels*, or *sheets of tissue paper* for examining table.

Specimen bottles.

Tray containing—

- Small-size *tongue depressors*.
- Throat swabs.
- Glass slides.
- Gauze sponges in jar.
- *Cotton sponges* in jar.
- Roll 3-inch *adhesive tape*.
- Roll sterile 2-inch *gauze bandage*.
- Blunt-pointed *scissors*.
- Alcohol.
- *Tube of petroleum jelly*.
- *Silver-nitrate pencil*.

Immunization and venapuncture equipment and supplies:

- *Sterilizer* or *basin for boiling syringes and needles*.
- Tray containing—
  - *Tuberculin-test material*.[3]
  - *Smallpox vaccine*.[3]
  - *Diphtheria toxoid*.[3]
  - Wassermann tubes.
  - *Syringes*, two 2-cc., marked for ½-cc. doses.
  - *Syringes*, two 2-cc., marked for 0.1-cc. doses, one of which is kept for tuberculin tests only.
  - Syringe, 10-cc.
  - *Needles*, 1 dozen ½-inch 26 or 27 gauge.
  - Needles suitable for venapuncture.
  - *Forceps*, straight, 8-inch, 2 pairs.
  - Iodine, 3-percent solution.
  - *Alcohol* or *acetone*.

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[3] These must be kept in a refrigerator between conferences.

Green soap.
Cotton.
Applicators.
Spirits of ammonia.
Sterile towels.
Tourniquet.

(The articles provided for the immunization tray need not be duplicated on the regular tray for the examining table.)

Equipment for urinalysis:

Test tubes.
Test-tube rack.
Test-tube holder.
Test-tube cleaner.
Urinometer.
10-percent acetic-acid solution.
Blue litmus paper.
Red litmus paper.
Alcohol lamp.
Benedict's solution, qualitative.

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REGULARITY AND FREQUENCY OF CONFERENCES

The primary aim of the conference is to *provide continuous health supervision for the child*. In order to do this it is considered that a regular schedule is essential—weekly, biweekly, or monthly, depending on the size of the community and the attendance at the conferences. It is important to set a definite day and hour for the conference—for example, the first and third Wednesdays of each month at 2 p. m.—and adhere to the schedule. When conferences cannot be arranged for throughout the year they are planned for as much of the year as is feasible.

In some areas annual itinerant conferences are held. Conferences held as infrequently as this, or even those held twice a year, do not meet the requirements of general health supervision. They do, however, serve to demonstrate the need for and value of such service, and to call the attention of parents to abnormal conditions and give them some information on child care in general. For these reasons they are considered worth while, even though far from adequate.

APPOINTMENTS FOR EXAMINATION

The advantage of appointments for examination is unquestioned and in most places they have been found feasible even in rural areas.

When making appointments the hour as well as the day is specified. As a rule it has been found best to schedule new cases and the more urgent cases first. An appointment for a new patient is given for about an hour before the time when the child will be seen by the physician. For example, when the conference is scheduled to begin at 2 o'clock, the first appointment would be made for 1 o'clock. This allows time for the child's history to be recorded and the height, weight, and temperature to be taken, so that no time will be lost by the physician between his consultations with mothers. Since taking the history of a new patient, or of several children of one mother, requires considerable time, it is a good plan to schedule ahead of new patients, one or two children who are making revisits. Having all in readiness beforehand gives the public-health nurse more opportunity to be present at the physician's conference with the mother; her presence is desirable although not always possible.

There is a tendency in some communities to make the child-health conference a social occasion, the mothers congregating early and staying until the last examination has been finished. This custom provides good opportunities for group instruction. It has disadvantages, however, particularly in winter, when colds are prevalent and rooms may be poorly ventilated; but even this situation could be utilized for health education, such as teaching the mothers the needed precautions against transmission of colds.

THE CONFERENCE STAFF

The minimum conference staff includes the physician, the public-health nurse, and from one to three volunteer helpers to work in the reception room, the weighing and measuring room, and, if desired, the physician's room.

When available and where facilities permit the services of a nutritionist, a dentist, and a social worker, especially in the capacity of advisers and consultants to the medical and nursing staff, add to the completeness of the conference service. These special consultants need not all be present at each conference. When any are present additional room is necessary so as to avoid confusion.

The conference staff should keep in mind always that the purpose of the conference is to serve the individual mother and child. To do this best, it must make all service as considerate and prompt as possible; each mother is made to feel that her individual problems are being given careful consideration and she is given such satisfactory service that she will wish to return and will influence other mothers to come for similar service.

Such things as a friendly reception, assistance in disposing of wraps and in finding a place to sit while waiting, a simple explanation by the nurse of conference procedure and especially of the need for the information asked in taking the history, aid greatly in the psychological preparation of the mothers. Likewise a quiet understanding manner on the part of all conference workers in handling the children not only will do much to help overcome apprehension on the part of the children but is an excellent demonstration for the mothers.

The Public-Health Nurse

The effectiveness of a child-health conference depends in large measure upon the services of the public-health nurse. The quality of her services, in turn, depends upon her qualifications for public-health nursing in the field of child health.

In most communities the public-health nurse, because of her acquaintance with many families through her general health services, will know of the children in need of conference service and will refer the parents to the conference.

Because of her knowledge of the health, economic, and social conditions of the family, the public-health nurse can at the time of the conference supplement the information of the doctor. At the same time she can interpret to the parents, in terms of their particular home situation, the medical, dental, and nutritional advice given at the conference and will show them how they can put it into practice.

Although the efficient management and smooth operation of the conference are a responsibility of the public-health nurse, they are only a part of her larger responsibility of making sure that the educational potentialities of each conference are fully realized for each mother. Efficient management is important because it facilitates the creation and utilization of opportunities for teaching by public-health nurses, as well as by other members of the professional staff.

The number and types of services performed by the public-health nurse at the child-health conference are influenced by the physical arrangements of the conference, the number of public-health nurses present, and the number of other types of workers assisting. As the most important services for her to perform are those that contribute most to the educational value of the conference, the duties of the public-health nurse may be summarized as follows:

- General management of the conference.
- Taking part of the histories of newly admitted children. (This may be done in the home before the conference takes place.)
- Conferring with the mother before she sees the physician.
- Observing signs of illness of children as they come to the conference and isolating or excluding them as indicated.
- Instructing and supervising volunteer aids in the performance of their nonprofessional duties.
- Carrying on individual or group instruction or demonstrations of exhibit materials for waiting parents.
- Introducing to the physician the mothers and children who come to the conference for the first time.

Discussing with the physician any facts related to the progress being made or to home conditions.

Being present, whenever possible, during the physician's conference with the mother.

Conferring with the mother before she leaves the conference concerning the recommendations of the physician, to give her an appointment for her next visit to the conference, to determine whether or not her questions have been satisfactorily answered, and, if indicated, to make an appointment for a home visit.

If indicated, referring parents to other community agencies, such as hospital, clinic, welfare agency, school, or private physician.

Participating in joint conferences of professional staff following the conference to review recommendations and plan jointly for carrying them out.

Seeing that individual service records and activity reports for each conference are complete.

Probably the most important function of the public-health nurse is further to interpret medical advice and to give practical help to the parents in carrying it out by means of visits to the home. This type of individualized health service is a necessary supplement to the service of the child-health conference and an effective method of health teaching.

The number of the public-health nurse's visits to the home and the intervals between them are governed by circumstances such as the intelligence and cooperativeness of the parents, the condition of the child, the economic and social conditions in the home, regularity of attendance at the conference, and the progress being made in carrying out the medical recommendations.

The medical examination at the child-health conference can be regarded as the incentive for continuous health supervision of the child, to which the public-health nurse contributes in other environments and in other ways.

The Volunteer Helpers

Volunteer helpers not only give valuable service in the conference by releasing the nurse from the more routine work so that she may confer with individual mothers but widen the interest in and understanding of the work in the community.

These helpers are selected for their intelligence, dependability, and interest in child-health work. *They must be*

impressed with the need for guarding honorably all information of a personal nature that is acquired in connection with the conference. It is important that they refrain from giving advice to mothers from their own experience. It would be helpful if volunteers could be found who had had some special training pertinent to the functions of the child-health conference, such as nurses, nutritionists, nursery-school workers, laboratory technicians, social workers, or teachers. It is important to have a substitute for each volunteer.

The volunteer staff is under the direction and supervision of the public-health nurse. Each helper must be individually instructed in the duties she is to perform. Group instruction also may be given and conferences held with the volunteer staff for the purpose of improving individual efficiency and developing teamwork.

When possible without hardship, volunteers might wear simple smocks to identify them as members of the conference staff. Superfluous jewelry should not be worn.

All volunteers will be at the center ready for duty at least half an hour before the conference is scheduled to start. *When one cannot be present she will arrange to have her substitute attend and will notify the nurse in charge.*

One volunteer may be made responsible for opening the center and seeing that it is properly heated and ventilated before the scheduled time for the conference to start. This duty might be rotated among the volunteers.

At the close of a conference each volunteer sees that the equipment in her department is properly cared for; that the paper towels and other waste are disposed of; and that everything is left in good order.

The Conference Physician

Choosing the physician is a matter of particular importance. The success of the conference will depend to a large extent upon the qualifications of the physician in charge. A pediatrician is chosen when at all possible. When a pediatrician is not available an endeavor is made to procure a physician having special training in child-health work. If no such physician is available in the community, the State health department

may be requested to assist an interested local physician to acquire the necessary experience in conference work. It may be possible to enlist the aid of a pediatrician to act as consultant to the regular conference physician and to conduct demonstration conferences from time to time for local physicians to observe. It is advantageous to have a pediatrician or a physician who has shown an interest in the public-health phases of pediatrics or in general public health, and who has the confidence of the community. In some areas it will be necessary for the health officer to do the work. It is important to have the same physician serve regularly at the conference.

A substitute physician also is chosen having the same qualifications, if possible, as the regular conference physician. *An agreement is made with the regular physician that he will arrange for the substitute physician to attend the conference when he cannot be present and that he will notify the nurse whenever this is necessary.*

Rotation of conference physicians is not conducive to satisfactory service and is done only where there are several qualified physicians in the community who wish to serve. In this case arrangements are made for each physician to serve for at least 6 months and preferably longer. There should be continuity of service of the conference physician and *he should be paid a stipulated fee for his services.* The fee may be determined by the administrative agency and the local medical society.

The Duties of the Conference Physician.[4]

The physician is the medical director of the conference, and his attitude toward parents and children and the type of service he renders make for the success or failure of the conference. It is important that he be present at the hour appointed for the beginning of the conference; otherwise the consultations and examinations must be hurried and the entire plan of work disturbed.

He will wear a washable gown or coat while making examinations and *wash his hands before the examination of each child.*

The physician reads the child's record before the child is brought to the consultation room. When mother and child

[4] Objectives and Techniques for Conducting Child-Health Conferences, by Amos Christie, M. D., Department of Pediatrics, University of California, San Francisco. Reprints are available without charge from the Children's Bureau, U. S. Department of Labor, Washington, D. C.

enter, a kindly greeting helps to put both at ease. It is important for the physician to make the mother feel that he is interested in assisting her with her child-care problems.

The Medical History.

A good medical history is essential, and the physician will need to obtain this, although he may assign to the nurse the responsibility of assisting. The value of the advice given by the physician to the mother at the child-health conference probably depends as much upon his obtaining a satisfactory medical history as upon his examination of the child. Aside from obtaining specific data regarding the child's background, which physician and nurse must know, *they will find out what the mother considers to be her problems regarding the child and the points on which she wants help.*

It frequently happens that the physician in charge of the conference is so occupied with the examination of the child and with entering notes on the record that he overlooks giving the mother an opportunity to talk. After the physician has obtained from the mother the desired information on the child's history, it may be a good plan for him to ask the mother: "Now what do you want to tell me?", giving her a chance to relieve her mind and at the same time furnish clues for further questions pertinent to the individual case. The physician will be careful in his questioning not to suggest the proper answers. The taking of the history offers an excellent opportunity for teaching by both physician and nurse.

Getting Acquainted With the Child.

With the little child who is attending the conference for the first time and to whom the procedure is new and strange, the physician needs to make friends. If the child is apprehensive, timid, or shy, it may be well not to pay too much attention to him at the start but to talk with the mother regarding the more general phases of the child's history, perhaps handing a toy to the child and giving him opportunity to orient himself and become more at ease. He should be approached quietly and gently. It strengthens the older child's confidence in the physician if the physician explains honestly to him any

unfamiliar or disagreeable procedure that is necessary. Never tell a child a procedure will not hurt if it will.

The Physical Examination—Appraisal of the Child.[5] [6]

At least 15 minutes is required for a satisfactory examination of the child and conference with the mother. New cases, of course, will require longer.

In making the examination it is important to keep in mind the picture of a normal healthy child—not merely the "average" but the child who is in an optimal state of health. With a standard of excellence in mind and a knowledge of the fundamentals of nutrition and of mental hygiene, the physician is able to give advice to the parent that will help toward the attainment of optimal mental and physical health for each child.[7]

Both the infant and the older child are completely undressed for the examination and for subsequent inspections. There is probably nothing that will so impress the parent as to see the physician make a thorough examination. Time must be taken for details, and the physician should not be nor appear to be hurried. It is well to bear in mind the educational as well as the inherent value of strict adherence to cleanliness throughout the examination and of aseptic technique where this is indicated.

> The order of procedure in examining a child varies with the child's age and disposition. One cannot proceed in a stereotyped course, as is possible with the adult. One must pick and feel one's way, starting generally with the things that are not unpleasant and gradually, as the child's confidence is established, passing on to things that are more unpleasant or more dreaded. The throat is nearly always best left until the last unless there is something still more unpleasant, except in the case of the older child who knows that the ordeal is inevitable and wants it over with. (See footnote 6, below.)

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[5] The Appraisal of the Newborn Infant, by Ethel C. Dunham, M. D., Director, Division of Research in Child Development, Children's Bureau. Single copies available without charge from the Children's Bureau, Washington, D. C.

[6] Examination of the Child in the Practice of Pediatrics, by Joseph Brenneman, M. D., vol. 1, ch. 19.

[7] Signs of Health in Childhood. National Education Association, 1201 Sixteenth Street NW., Washington, D. C. 20 cents per copy.

The *general appearance* should be noted, alertness, state of nutrition, color of mucous membranes and skin, posture, gait, responsiveness, and activity.

A child in good *mental health* is alert, with a happy expression, and is interested in his surroundings. There is a very close relationship between bodily and mental health which cannot be too strongly emphasized. In order to be able to appraise a child's mental status, the physician must be familiar with the psychological aspects of child development.[8]

Optimum nutrition is evidenced by smooth, clear, and elastic skin; good color of the mucous membranes; sound teeth; firm but not superfluous subcutaneous fat; muscles that are well developed and firm. To determine the amount and turgor of the fat and muscles the physician should feel the tissues of the upper arm, the abdomen, and the calves or thighs. The muscles should be felt relaxed as well as under tension.

Weight should be suitable to body build. A number of years ago there developed a practice of judging a child's state of nutrition by comparing his height and weight with tables giving average heights and weights of children of his age. It has been generally accepted that this is not a reliable method of judging nutrition because in the compilation of the height-weight-age tables, no consideration was given to the variations in type of body build. For example, a child having a large bony frame might compare favorably in height and weight with the average given in the tables for children of his age, but, having small amounts of muscle and subcutaneous fat, he might be much undernourished. Another child having a small bony frame might weigh considerably less than the average for children of his height and age and yet, having well-developed muscles and subcutaneous fat, he might be in an excellent state of nutrition. For these reasons the height-weight-age relationship should not be the basis of judgment of nutritional state. The picture of the whole child is taken

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[8] Child Management, Are You Training Your Child To Be Happy?, Habit Clinics for Child Guidance, The Child From One to Six—His Care and Training, pp. 1–5 (Pubs. 143, 202, 135, and 30, Children's Bureau, U. S. Department of Labor, Washington, D. C.).

into consideration. Satisfactory *gain in weight* is an important evidence of good nutrition.

Good Posture.—Signs of good posture are—

Level *shoulders*.

Flat *scapulae*.

Spine free from abnormal curves.

Head held erect with chin level.

Symmetrical *chest*, with equal expansion on both sides during respiration.

Abdomen, protruding slightly in children up to about 5 years of age but in line with the chest in older children.

Legs neither bowed outward nor with knees inclined inward.

Inner and outer sides of *ankles* equally prominent; the inner not projecting as when the arches of the feet are weak.

Feet strong and flexible; inner borders straight from heel to tip of great toe. The feet are normally flat in the infant and very young child, but the arches should develop after the child begins to walk. The arches of some children are normally higher than those of others.

Head.—Scalp clean and free from scaling or signs of irritation. The anterior fontanel is usually closed before the child is 15 months old.

Eyes are bright and clear, lid slits equal, movements coordinated, and pupils equal. Obvious defects in vision and muscle balance may be detected in the conference. Such cases and those in which any abnormalities are suspected should be referred to an ophthalmologist. (For a discussion of screening tests see p. 34.)

Mouth with smooth and pink *mucous membranes; teeth* that are well formed, well enameled, clean and even, free from cavities or with cavities properly filled, with good occlusion (the grinding surfaces of the bicuspids and molars meeting directly, the upper incisors and canines slightly overlapping the lower). This inspection will of course not take the place of an examination by a dentist.

Tonsils.—Large tonsils are not necessarily abnormal unless they cause obstruction to breathing and swallowing or give evidence of acute or chronic infection.

Ears.—Canals clear; drums showing well-defined light reflexes and other landmarks. Obvious hearing defects may be detected in the conference, and such cases and those in which any abnormalities are suspected should be referred to an otologist. (For a discussion of hearing testing see p. 34.)

Nose unobstructed, free from discharge, septum in the midline; mucous membrane pink and moist.

Thyroid gland.—Not enlarged.

Cervical lymph nodes.—Not enlarged or tender on palpation.

Heart.—Satisfactory examination of the heart can be made only when the child is quiet. The heart rate is normally more rapid in a child than in the adult, and there is greater variability of rate with activity. A murmur is not necessarily evidence of a pathological condition, but it is an indication for careful examination and medical supervision.

Lungs resonant to percussion and clear to auscultation.

Abdomen flat and soft when the child is reclining, with no enlargement of the viscera. When the head is lifted the abdominal muscles normally become tense without midline separation or bulging. Likewise, there is normally no bulging in the inguinal region when the child stands or coughs.

Umbilicus should be healed and dry when the infant is 3 weeks of age. There is normally no herniation.

Genitals:

Female—clean and free from discharge and signs of irritation.

Male—clean, foreskin easily retractible, testicles descended.

In addition to the attributes of positive health outlined above, the physician obviously should search for the recognized evidences of physical abnormality. Many abnormal conditions such as glandular dyscrasias, nutritional disorders, allergic diseases, and mental retardation make their appearance during infancy and early childhood. Their early recognition and advice as to the steps necessary for early correction are important functions of health supervision.

See also Examinations, immunizations, and tests needed (p. 34).

The Conference With the Mother.

The physician's responsibility does not end with the making of the examination. While it is essential to have the best possible physical examination, this alone does the child no good. If it is to be of value, the mother must be informed of the findings and of better ways of caring for the child so as to *promote his optimal mental and physical health.*

Mothers of infants and young children need some general principles to guide them in everything they do with or for their children. These include not only matters pertaining to physical health but also principles of mental health. These

principles need to become part and parcel of health-guidance work. It is not logical that parents receive only medical guidance from the physician, and receive their guidance in forming attitudes and habits of everyday living from a psychologist or, as is more usual, from grandmothers and the neighbors. Emotions and physiological functioning are too closely interrelated to permit this division of responsibility. An important causal factor in producing the "below-par" child is frequently found to be the parents' inability to cope with either their own emotional disturbances or those of their children. Under these circumstances good health habits cannot be developed.

For these reasons, in the best health supervision time and thought will be devoted to the psychological aspects of child development as well as to the physical aspects.

The physician in making recommendations, particularly with reference to diet, will keep in mind the economic status of the family and avoid recommendations which the family will be unable to follow. To make effective his advice, the physician needs to have the confidence of mother and child. A kindly attitude and genuine interest in their problems will rapidly build confidence. Care needs to be taken not to overburden a mother with too much advice at one time. It is often better to stress one thing at a time and to take up other matters at later visits. Most mothers who come to the child-health conference are eager to learn better ways of caring for their children and are perfectly capable of making good use of the advice given by the physician. The child may, if desired, be excused from the consultation room during this conference. Care should be taken not to discuss the child's behavior in his presence. When possible, it is very desirable that the public-health nurse who is responsible for the conference follow-up service be present, although when the physician and nurse have learned to work together the physician's notes on the child's record will usually give the nurse sufficient information for her conference with the mother.

The physician's conference with the mother will include information on—

a. The child's general condition.

b. Any deviations from normal, with recommendations for correction and referral to a private physician, or to the proper public agency for the family in the low-income group. Every effort should be made to find means for correction.

c. The relationship of daily habits to the health of the child and the importance of establishing from the beginning proper habits of—

(1) Taking food.
(2) Sleep and rest.
(3) Elimination.
(4) Cleanliness.
(5) Exercise and play.
(6) Emotional control.
(7) Social habits.

d. The prevention or overcoming of undesirable habits—thumb sucking, bed wetting, and temper tantrums, masturbation, and so forth, as the need for such information occurs.[9] [10]

e. The management of breast feeding.

f. The need for proper preparation of food and the addition of certain foods to the diet at certain ages. It is important for the physician to keep in mind the economic status of the family and avoid making recommendations the family will be unable to follow.

g. The importance of *satisfactory gain in weight.*

h. The need for immunization against diphtheria and smallpox for all children and against other diseases in special cases.

The physician will indicate clearly when the child is to be brought again to the conference. The date will be entered on the appointment record and also on a slip which is given to the mother.

Printed Material as an Aid to the Physician's Conference With the Mother.

It is very helpful both to the conference staff and to the mothers attending to have approved information and directions on certain subjects in printed or mimeographed form. Paper of different colors may be used for different subjects if desired. The purpose of this is to supplement, *but not to take the place of*, the physician's or the nurse's explanation, and to give the mother the material to refer to when necessary.

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[9] See footnote 8, p. 23.

[10] The Psychological Aspects of Pediatric Practice, Benj. Spook, M. D., and Mabel Huschka, M. D. New York State Committee on Mental Hygiene of the State Charities Aid Association 105 East Twenty-second Street, New York, N. Y. 25 cents.

Such instructions are written in very simple terms. Many subjects might be treated in this way, such as—

Breast feeding.
Food for the nursing mother.
Routines for the care of the child at various ages.
Preparation of the milk formula.
Bathing the baby.
Directions for laundering diapers.
Sleep, exercise, and play.
The need for cod-liver oil and directions for giving it.
The need for sunshine and directions for giving sun baths.
The care of the baby in summer.
Prevention of digestive disturbances.
Prevention of colds.
The baby's teeth.
Weaning the baby.
Bowel and bladder control.
The importance of immunization against smallpox and diphtheria.
Forming good eating habits.
Low-cost nourishing foods.
Playthings for the little child.
Common communicable diseases.
Enuresis.
Thumb sucking.

Source material on these and other subjects can be obtained from State departments of health, and from the United States Children's Bureau and the United States Department of Agriculture, Washington, D. C.

The Nutritionist

A nutritionist can add to the effectiveness of a conference in a number of ways. She may supply simple posters, food models, and other devices for teaching the waiting mothers. She may be able to furnish or to suggest sources of printed material on low-cost foods for families with young children. A nutrition consultant on the State health-department staff can often interest local nutrition workers (county home demonstration agents, home-economics teachers, and others) to give volunteer service at child-health conferences. She can also give them supplementary training for this new activity.

If a nutrition worker in the community can attend conferences regularly, she can instruct both individuals and groups. If someone is present to entertain the children the mothers are free to listen to a short talk on low-cost foods, preferably accompanied by a demonstration of the preparation of some simple, nourishing dish. If there is no time that can be set aside for teaching the entire group, the nutritionist can carry on a continuous demonstration for small groups of mothers waiting for their turn with the physician.

The physician and the dentist will find that some mothers need detailed instruction in how to carry out the dietary recommendations noted on the record. Much of this instruction will be given by the nurse as she explains also other recommendations of the physician and the dentist. A nutritionist can observe the nurse's instruction of the mother, so that she may know the points that should be stressed in her staff-education work with nurses. She can also confer with mothers in the presence of the nurse as a demonstration of how to teach them to make the most of the money they have to spend for food. Following the conference, the nutritionist can go over with the nurse special food and budget problems that can be worked on during the nurse's visits to the homes of families represented at the conference.

The Dentist

A dentist who has had special training or experience in children's dentistry and is interested in teaching dental health would contribute to the value of the conference service. In some localities dental hygienists serve in conferences. Consultation between physician and dentist regarding dental conditions affecting the child's health is obviously desirable.

A separate room or partitioned space is needed for the dentist's work. As equipment he will need dental explorers and mirror, which he will usually supply, a small sterilizer, paper towels, a small table, and chairs.

Plenty of time should be allowed for the dentist to become acquainted with the child. He will explain to the mother the need for regular dental supervision, corrective procedures, and prophylactic measures.

A summary of the dental findings and recommendations is entered on the child's conference record.

The Social Worker

The public-health nurse and the physician will often find social problems that make it difficult for a mother to care properly for her child. It is important that the services of the local social worker be utilized to the fullest extent in dealing with these problems. In some instances it would be helpful to ask the local social worker to come to the conference from time to time to receive and to give reports and discuss these problems with the physician and the nurse. In rural areas, particularly where the functions of the social worker are not fully understood, there would be advantages in introducing her at the conference to families needing help.

Plans for assisting the family will be made jointly by the public-health nurse and the social worker, and they will confer with each other as frequently as seems necessary between the conferences in regard to the families receiving social care. Significant social reports should be summarized on the child's chart.

PROCEDURE FOR MOTHER AND CHILD VISITING THE CONFERENCE

When a mother attending the conference for the first time is not acquainted with the conference staff, the person in charge of each department will be careful to introduce to her the person in charge of the next department when she is received there.

In the Reception and Waiting Room

a. The hostess, usually a volunteer worker, who has been previously instructed, should be on the alert for signs of obvious illness in infants as they are received. As she greets a mother and perhaps assists her to remove her wraps, she has an opportunity to observe the child for possible signs of illness. If any are noticed, the mother is questioned regarding the child's condition and is requested to occupy a place apart from others who may be present. The doctor and nurse are notified, and the doctor will see the sick child immediately. If the case appears to be of an infectious nature, the child is usually dismissed immediately from the conference. But if conditions are such that the mother is unable to take the child away at the moment every effort is made to isolate the child as completely as possible while arrangements are made for suitable care. The method of providing for isolation will be determined by the physician and nurse, depending upon the facilities of the individual center.

When a child appears to the hostess to be well, the mother is taken to the admission desk.

b. Identification data such as date, names of child and parents, and address are obtained and identification numbers are assigned. In most conferences the person acting as hostess obtains this information. The mother is then referred to the nurse, who takes the part of the history delegated to her unless this has been done at a previous home or office visit.

In the Weighing and Measuring Room

There may be a volunteer helper in this room to weigh and measure the children and to enter the weight and height on the record cards. When there is available a volunteer helper who has had nursing training, she might well be assigned to weigh and measure the children. It is a good plan to utilize this opportunity to teach the mother how to weigh and measure her child.

The weighing and measuring should be done promptly so that the physician does not have to lose time between examinations. However, after children are undressed, long waiting, which causes restlessness and apprehension, is to be avoided.

To be of value the weight and height must be *measured and recorded accurately*. Incorrect measurements may be harmful by causing anxiety on account of a supposed failure of the child to grow in height or gain in weight, or by creating a false sense of security in the belief that the child has grown or gained when he has not. Great care should be taken to see that each measurement is correctly taken and correctly recorded. To facilitate this the scales and measuring board should be placed where the light is good. The scales should be checked for balance between weighings.

A fresh sheet of scale paper or paper towel is used for each child on the scale pan, on the measuring board, on the platform scale, and on the undressing and dressing tables.

While the child is still on the measuring table it is a good plan to take his temperature. Although single isolated temperature recordings are of doubtful value in themselves, the taking of the temperature at the conference affords a valuable opportunity to teach the mother this procedure. It certainly should be done if the child appears ill.

After being weighed and measured the child is not dressed before the examination but should be adequately covered with the small blanket which the mother brings. The child who walks may put on his shoes after being weighed. The diaper should be replaced on the infant.

For children who object to complete undressing, lightweight underwear, shorts, bloomers, or sunsuits may be left

on. Their weight is negligible. Infants, however, should be entirely undressed for weighing.

In the Consultation Room

Each child coming to the conference for the first time should be given a complete examination. In places where the appointment system is in use every effort will be made to keep to schedule. This will call for careful planning and for limiting the number of appointments. If a mother comes in without an appointment, an effort should be made to accommodate her. If she cannot wait, an appointment may be made for a later date and an opportunity given for an interview with the nurse, who will consider the advisability of a home visit and perhaps give the mother some appropriate literature.

A thorough physical examination of a child, allowing opportunity for the mother's questions and for discussion and instruction, requires time (15 to 20 minutes) to be effective and should not be hurried. Obviously less time is required for children coming to be weighed, measured, and inspected after having had a recent complete examination.

Immunizations or any other procedures which are particularly unpleasant or painful are best deferred until after the completion of the examination and the conference with the mother. There is real advantage in allowing a crying child time to recover before he is sent back to the weighing room or the reception room.

EXAMINATIONS, IMMUNIZATIONS. AND TESTS NEEDED

Medical Examinations

Each child will be given a complete examination on his first visit to the conference. The frequency of subsequent examinations will depend largely on the needs of the individual child and will be determined by the physician.

The following schedule represents good practice for complete examinations: [11]

During the first year—examination at least once a month.

During the second year—examination at least every 3 months.

From the second to the sixth year—examination at least every 6 months.

Inspections with the child undressed and conferences with the mother will be scheduled between the examinations at intervals depending upon the needs in the individual case.

Parents should be informed that an examination is advisable after any illness.

The weight and height are taken and recorded at each visit to the conference.

Screening Tests for Vision and Hearing

Because they require a special room, special equipment, considerable time, and ordinarily two persons to give them, vision and hearing tests for preschool children at regular conference sessions are not usually considered advisable.

However, it is highly desirable that children's visual and auditory acuity be determined before they enter school; and if proper facilities can be arranged for at the conference center and the tests done by special appointment, they would add to the completeness of the health supervision. [12] [13]

[11] The Health Supervision Program Your Child Should Have. Leaflet prepared by the American Academy of Pediatrics, 636 Church Street, Evanston, Ill.

[12] Publications of the National Society for the Prevention of Blindness, 1790 Broadway, New York, N. Y. (these include directions for testing the vision of children of preschool age). Testing the Sight of the Young Child, by Parke Lewis, M. D. (American Medical Association, 535 West Dearborn Street, Chicago, Ill.; 10 cents.)

[13] Publications of the American Society for the Hard of Hearing, 1537 Thirty-fifth Street NW., Washington, D. C. (these include suggested hearing tests for children of preschool age). Testing Kindergarten Children With the 4-A Audiometer, by Warren H. Gardner, Ph. D. (Reprint No. 468 available from the Volta Bureau, 1537 Thirty-fifth Street NW., Washington, D. C.).

In case the examining physician discovers at any time any evidence of impaired vision or hearing he will promptly refer the child to a specialist, if possible, for further examination and recommendation as to treatment.

Urinalysis

It is advisable to make routine examinations of the urine of children who can urinate into a receptacle, in order to detect the presence of albumin or sugar. Laboratory facilities are necessary in examinaing for urinary-tract infection.

Dental Examination

Dental examination and advice on the care of teeth by a dentist should be begun after the second year.

Immunization

Inasmuch as there is considerable difference of opinion as to the immunizing agents to be used, dosage, interval between administrations, and age when immunization should be started, it is suggested that the State department of health be consulted regarding its recommendations.

The committee on immunization and therapeutic procedures for acute infectious diseases of the American Academy of Pediatrics has issued a report [14] giving information on immunity including *technique of tests and dosage of immunizing agents*.

Vaccination against *smallpox* before the age of 12 months is generally accepted as the best practice.

It is recommended that the baby be immunized against *diphtheria* through the injection of three doses of toxoid at about the age of 9 months. A Schick test about 6 months after the last dose and another about a year after the last dose are advised in order to determine whether protection against the disease is complete or whether another injection is needed. The Schick test should be repeated when the child enters school and again when he enters high school, or at about the ages of 6 and 12.

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[14] Copies of the report are available at 10 cents each from C. G. Grulee, M. D., Secretary of the American Academy of Pediatrics, 636 Church Street, Evanston, Ill.

Some physicians now immunize against diphtheria and tetanus in the same injection.

Typhoid immunization is seldom necessary in infancy because of the precautions taken in preparing infants' food and in sterilizing their drinking water. However, in later childhood, if children are at all likely to come in contact with contaminated water or milk supplies, typhoid vaccine may be indicated. The immunity produced is of limited duration.

While the effectiveness of vaccine for protection against *whooping cough* is not established, the protection that it may afford during early childhood, when the mortality from whooping cough is highest, would seem to justify consideration of its use.

It is advisable that each child be given a tuberculin test.[15] Children having positive tuberculin tests are referred to a physician for further examination and recommendation as to care. A positive test in a young child usually indicates contact with someone who has active *tuberculosis*. Every effort should be made to determine the source of infection, which, when discovered, should be reported immediately to the local health department.

Routine blood tests for *syphilis* are being advocated, particularly in areas where syphilis is prevalent. State departments of health make provision for the treatment of children whose parents cannot pay for this service.

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[15] For technique of tuberculin test see report referred to in footnote 14 and Diagnostic Standards, issued by the National Tuberculosis Association, 1790 Broadway, New York, N. Y.

RECORD FORMS AND RECORD KEEPING

Orderly recording of significant information regarding the child's health and development and services rendered at the conference is essential for insuring continuity in the child's care and for the evaluation of accomplishment in the conference program.

The record system should be flexible enough to permit adaptation to the needs of the area concerned, but as a basic principle the use of the same form is recommended for recording service at the conference and in the home. This procedure promotes the integration of services and lessens clerical work. It is advantageous also to have entered on a single record the findings and recommendations of all professional personnel serving the child in the conference.

To be of maximum value, a copy of the preschool health record should be furnished to the school health authorities upon the child's entrance to school.

In addition to the record form relating to the care of the individual child, certain records are essential in connection with administrative reports and arrangements for the conference, and in the preparation of summaries of conference attendance.

In order to have available at all times information on the children attending the clinic and the dates of their attendance, an attendance-record book is helpful. It can also be used for keeping a record of the appointment dates for visits to the conference.

Statistics for monthly or annual reports of conference attendance may be compiled from the information in the attendance-record book. Another plan for assembling this information is to count from the individual case records, at the end of each conference session, the number of infants and preschool children in attendance, the number of new admissions, and the number of readmissions. The count is entered on the daily report of the nurse or on a summary sheet relating to service in one or more conference centers. At the end of the month or year the counts relating to each conference session are added for the statistical report.

Appendix A.—SUGGESTIONS FOR ORGANIZATION AND FUNCTIONS OF LOCAL CONFERENCE COMMITTEE

The local conference committee is an advisory committee serving the district, county, city, or town health department or the local sponsoring agency or agencies. This committee is selected with much care since it will be a permanent one. Members are appointed so that their terms of office will expire in different years. In appointing the members the health officer or appointing body should give careful consideration to the community needs and the background of community life, as well as to the qualifications and interests of the individuals selected. Members are chosen who can be expected to attend meetings with reasonable regularity. The size of the committee should be governed somewhat by the size of the community to be served, 10 to 12 members probably being adequate for most communities. The district, county, city, or town health officer and public-health nurse are members ex officio.

It is important to have on this committee, which is composed of both men and women, representatives of the local medical and dental professions, the public-health-nursing groups and other public-health and public-welfare organizations, the public schools, the local government, hospital administration, church organizations, organizations and clubs interested in community improvement or civic service, and parent-teacher associations. It is advantageous to include also a capable businessman on the committee.

The officers of the committee include chairman, vice-chairman, and secretary. These persons should be community leaders, preferably with some knowledge of and particular interest in public-health work.

Counties, districts, cities, or towns having full-time public-health departments may already have public-health committees or councils which have agreed upon policies and standards for child-health conferences applicable to the whole area. In such places the local conference committee may be a subcommittee of such a public-health committee or it may be an independent committee. It should be informed of the policies adopted by the public-health committee in order that such policies may be discussed and that the plans of the local conference committee may not conflict with those policies.

The local conference committee meets at regular intervals. It is helpful to the physicians and nurses directly responsible for conducting the conference to discuss with the committee the progress of the work and questions of policy, equipment, publicity, and so forth. The manner in which the work of the conference committee is conducted will have much to do with the success of the conference. Reports of subcommittees should contain material of interest in addition to the necessary statistical material, and

there should be opportunity for free discussion by all members of the committee. Each local cooperating agency or group is kept informed by its representative regarding the work of the conference.

It is advisable for the committee to hold an annual meeting to which the public is invited. The purpose of this is to acquaint the public with the accomplishments of the child-health program during the year and the committee's plans for the future, and to stimulate further community interest in the service. Arrangements might be made for a special address on some phase of child health at such a meeting.

Appointment and Duties of Subcommittees

As need occurs subcommittees may be selected by the chairman of the conference committee in consultation with the health officer, or, if the local conference committee is under a voluntary agency, by the chairman of the local committee in consultation with the sponsoring agency. Only such subcommittees are appointed as are immediately necessary and will be active, and they may be dismissed on the completion of their specific tasks.

The subcommittees may include any or all of the following committees:

1. Medical advisory.
2. Finance.
3. Conference center.
4. Volunteer personnel.
5. Publicity.
6. Transportation.

The work of each of these subcommittees also is important and great care should be exercised in the selection of its members. Individuals should be appointed who may be expected to have a sustained interest in the service, who are capable of performing the necessary duties, and who have time to give to the work. It is considered advisable that the public-health nurse in charge of the nursing service of the conference be a member ex officio of each committee. The physician in charge of medical service at the conference will be a member of the medical advisory committee. The chairman of the local conference committee will be a member ex officio of the subcommittees.

Medical Advisory Committee.

The membership of the medical advisory committee includes the local health officer as an ex officio member and members of the local medical profession, particularly those physicians who are experienced or especially interested in child-health or general public-health work.

Where there is a full-time local health officer, he may appoint the medical advisory committee after consultation with the local medical profession. In rural areas where there are few physicians all of them may be members of the committee.

The functions of this committee include advice on the plan and scope of the conference, the medical procedures to be followed, and selection of physicians to conduct the conferences; advice on medical problems; assistance in preparation of medical information to be included in publicity; assistance in preparation of subject matter relating to medical problems for all publications prepared locally; interpretation of the work of the conference to the medical profession and assistance in arranging for public speakers on subjects pertaining to child health.

Finance Committee.

In communities where the State or local health department does not assume the financial responsibility for the conference, this committee will be responsible for estimating the financial needs of the center (the preparation of the budget) for the year; for obtaining money to meet the budget requirements; for purchasing the equipment for the conference center; and for paying bills, including rent, incidental to the operation of the center.

It is probable that most of the equipment, supplies, and furnishings for the center can be obtained through interested groups and individuals so that little will have to be purchased.

The finance committee works closely with the conference-center committee, purchasing as promptly as possible any needed supplies or equipment that the latter committee is unable to provide.

Conference-Center Committee.

This committee will probably be required in the beginning to give a considerable amount of time to its duties. These will include cleaning and renovating the rooms in the beginning; considering facilities for heating and water supply; obtaining and installing the furnishings, making the center as attractive as possible but keeping the furnishings simple and of a type that can be cleaned or replaced easily; obtaining the necessary equipment and supplies and arranging them in their places.

This committee will be responsible for the general housekeeping of the conference center; it will keep informed on the condition of supplies and see that they are replenished as needed.

Committee on Volunteer Personnel.

The committee on volunteer personnel, together with the public-health nurse, will analyze the conference jobs, taking into consideration the number of public-health nurses available regularly for duty at the conference, and will determine which places are to be filled by volunteers. The requirements of each place should be carefully studied and a person should be selected for each place who is qualified to fill it. A substitute is chosen for each volunteer. It is important to select volunteers who can attend regularly.

Volunteers and their substitutes are instructed and trained for their work by the public-health nurse.

Publicity Committee.

At least one member of this committee should be familiar with publicity technique. It would be well to have a member of the medical advisory committee also on this committee. The services of a representative of a newspaper, a broadcasting station, or an advertising agency would be helpful if available.

The functions of the publicity committee are to inform the general public of the service offered by the conference, its purposes, principles, and progress, and to stimulate public interest in the conference. This may be done through newspapers, radio, and public addresses. The publicity committee will make arrangements with the local *newspapers to carry ample notice of conferences*. Similar announcements might be made in schools or at local meetings.

It is desirable to plan a year-round publicity program, including newspaper articles, radio talks, and local addresses by qualified persons on subjects pertaining to child health and community responsibility for child health. Members of the local medical profession and organizations such as parent-teacher associations, service clubs, farm bureaus, and home-economics extension bureaus are often available for this purpose.

Transportation Committee.

The duty of the committee on transportation will be to endeavor to find transportation facilities for parents so situated that they cannot avail themselves of conference service unless some means of transportation is provided. It is well to determine as far as possible in advance of each conference who will need this assistance.

Volunteers performing this service carry their own automobile liability insurance and need to be fully informed on State laws regarding such liability.