municipal, county and state purposes and ask him to present that to his people all over the county. We will show that they paid so much for these taxes and they got return; they got good roads and schools, and in the cities they got good sidewalks, electric lights, and police and fire protection. They got a return for it. And the money they paid out for unnecessary sickness and premature funerals will usually exceed two or three times what they paid out for these other taxes. It is far more of a tax than what they paid to the sheriff, and besides they got no sort of a return for the sickness tax. We hammer that into them. We have talked about the money cost of sickness, but we have said nothing about the humanitarian side of sickness. Many of these are young people, young mothers and fathers, people who have just entered upon the productive period of life, who leave broken homes and helpless families.

In our work we want to go hand in hand with the women's clubs and every other helpful agency in the State that a doctor should take part in.

That is the spirit in which we do our work. We will train our men conservatively; we will train nurses for this work, adding this training to their training as physicians and nurses. Next year we will report, and if it has not turned out well, we will adopt some other course that may be better. We are committed to nothing. We have open minds about all this. We will watch what you are doing and take advantage of everything you propose. We believe that in going at the work in this spirit there can be no doubt as to its future.

THE MINNESOTA RURAL CLINIC*

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At the last meeting of this Association in Chicago I presented an outline† of the program for child welfare clinics in the smaller towns of Minnesota, which were being conducted by the State Board of Health. At that time, owing to the influenza epidemic, the work had been interrupted and the program was largely a paper program, except for one clinic which for the past eighteen months had been conducted at three-month intervals as an experiment. Since then practical experience and unforeseen events have forced certain changes, but on the whole the work has been a decided success.

Our plan of procedure was as follows: no clinic was given until a request from the local community came to us. We had expected that the popularizing of these clinics would take a long time, but fortunately the Children's Year program of the Children's Bureau was a great aid to us. The weighing and measuring of children in our State was well done. However, it was felt by every one, including the women in charge of the work, that this was not enough—that the weighing and measuring of children was not an end in itself, but must serve as an awakening to the need of follow-up. As a piece of propaganda and advertising on a national scale, it was a great success. Our offer to give free clinics following the weighing and measuring was seized with avidity by the State Chairman of the Children's Year Committee. She communicated with all of her county chairmen and advised them to write to the State Board of Health for clinics. We soon had almost more applications than we could handle.

When a request for a clinic was received detailed instructions were sent the local people advising them what kind of a meeting place was desired, the supplies needed, the number of volunteer assistants required, and suggestions as to the best means of advertising the clinic. This last included newspaper notices, placards in the local stores, announcements in the pulpits and public schools, and house-to-house canvass by block workers who had been organized in many towns.

Letters were sent to local physicians inviting them to attend the clinic and requesting their co-operation. It was explained to them that the clinics were primarily preventive, instructions being given the mother as to the diet of the infant with

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especial emphasis placed on the value of breast feeding. Medical and surgical treatment was recommended, but the patient was referred to the family physician for such care. In a general way we have had the co-operation of the physicians. In many instances it was perhaps lukewarm, but we have met no direct opposition.

On the day of the clinic a State Board of Health physician and nurse examined all children up to six years of age, and in exceptional cases over that age. Specific directions were given as to feeding, for this purpose printed diet slips being employed. Mothers were encouraged to nurse their infants, even though in many places this was in opposition to the advice of the local physician. While children up to six years of age were admitted to the clinics, infants under one year were most desired. We feel that the benefit derived from the education of the mother in the proper feeding of infants is one of the most important parts of the work. General directions were given as to clothing, fresh air and hygiene, but no prescriptions were issued. Recommendations as to dental care, operations of various kinds, and orthopedic appliances were made. These, with a copy of the recommendations, were turned over to the physician who, in many cases, was present at the clinic.

The local people were advised that such clinics should be held every three months. When the work was first instituted we made a condition of our return the employment by the community of a public health nurse to do the follow-up work. We were soon obliged to discontinue this, as we found the demand for such nurses greater than the supply. However, the four months' course in public health nursing which has been conducted for the past year at the University of Minnesota is gradually remedying this shortage.

The influenza epidemic held up our work until March 1, 1919, but the number of clinics scheduled ahead at that time was so great that it was necessary to enlarge our force. The division consisted of a medical director on half time, two full-time physicians, three nurses, and the requisite office help.

During the months of March, April, May and June, 88 clinics were conducted in the smaller towns of the State and 4,087 infants and children were examined. This was an average of about 45 children at each clinic. The recommendations in 3,500 of these cases have been summarized as follows:

Number of clinics from July 1, 1918, to June 1, 1919.... 78
Number of children examined.....3449
Age—10 days to 14 years. Majority of pre-school age.

PRESCRIBED RECOMMENDATIONS FROM PHYSICAL FINDINGS OF EXAMINING PHYSICIANS

Age	Diet	Operat'n	Teeth	Special*	No Recommendation
Under 1 year	782	3	3	11	43
1 to 2 years	545	15	2	33	68
2 to 3 years	353	61	5	53	98
3 to 4 years	261	65	25	55	113
4 to 5 years	196	85	57	49	104
Over 5 years	161	167	115	96	99
Total	2293	396	208	397	530
	60%	12%	6%	9%	15%

*Special refers to Wassermann tests, Von Piruet tests, blood, urinalysis, etc.

Eighty clinics were scheduled ahead for July, August and September, but in the meantime the Legislature met and failed to appropriate money for the support of the division. This was due to two causes: a private political feud and a rather reactionary type of legislature. In spite of this discouragement, because of the active demand throughout the State, this work is now being continued through the co-operation of the Minnesota Public Health Association and the Northwestern Pediatric Society. The Minnesota Public Health Association looks after the local arrangements and the financial end, while the Northwestern Pediatric Society supplies the technical medical services. The Public Health Association is a semi-public organization with Dr. H. W. Hill as executive secretary. Its funds are supplied by the sale of Red Cross seals. Of the funds so raised 80 per cent must be spent in public health work in the county where the money is raised, 10 per cent goes for the operating expense of the State Association, and the remaining 10 per cent to the National organization. There are subsidiary county public health associations formed in each of the eighty-six counties of the State.

The clinics at present are conducted in practically the same manner as when under the State Board of Health, except that the county public health association supplies the local initiative and funds. The

clinics, instead of being conducted by full-time physicians, are given by volunteers from the Northwestern Pediatric Society, which includes in its membership all of the pediatricians of the State. These men are paid on a per diem basis.

Placing the Pediatric Society in charge of the clinics has been a strong factor in unifying the pediatricians of the State. Among other things, the feeding schedule for normal infants used by the State Board of Health has been altered in some minor details and is now officially endorsed by the Pediatric Society, which greatly simplifies our work. The official history sheet which has been adopted is unique in its searching inquiry into the breast feeding history, and some valuable data should be gathered from these later on.

Since August 1, when the Public Health Association took over the work, up to November 1, 60 clinics have been given and nearly forty are scheduled ahead. In 42 of these clinics 1,828 babies were examined, an average of 44 per clinic.

DISCUSSION

These clinics have now been in operation about one year and have fully demonstrated their value as an educational force not only for mothers, but for physicians as well. While now being conducted very efficiently by the Public Health Association and the Northwestern Pediatric Society, the logical body to direct them is the State Board of Health with full-time physicians to make the examinations. Where an active pediatric society exists, an advisory commission from such society should be a great aid.

The further we progress in this work the more we are convinced that these clinics can not be conducted by local physicians, for the clinics would surely die of dissension and lack of interest. It is essential that the physicians conducting these clinics must be pediatricians or at least primarily interested in pediatrics. The graduate schools in pediatrics of our universities are in a position to furnish such men as are needed. In the distant future when we have full-time, thoroughly trained public health officers in these smaller communities (perhaps one in each county, as is advocated by the Minnesota State Board of Health) these clinics can be conducted locally.

There is no reason why this field should not be extended to cover prenatal work, maternal welfare and dental clinics. In fact, such work is now being organized in Minnesota to be operated jointly with and along the same lines as the infants' and children's clinics. In their respective clinics the Minnesota Obstetrical Society and the Minnesota Dental Association will play the role which is taken by the Northwestern Pediatric Society.

We feel that we have demonstrated not only the popularity of these rural clinics, but also the urgent necessity for them. This need is both for the immediate advice given and for the educational value to the community at large. It is a work which women are especially fitted for and interested in, and with votes for women an accomplished fact, no state should have any trouble in obtaining the necessary appropriation from the legislature. With slight modifications to suit local conditions, there is no reason why such clinics can not be put in operation in every state in the Union. If the program of the United States Public Health Service becomes a law, I look forward confidently to seeing a combination of state and Federal aid make this work universal.

To summarize, the value of these clinics consists in:

1. The teaching of the proper feeding of infants and children, and the especial value of maternal nursing.

2. General hygienic instructions, the value of fresh air, sunshine, and proper clothing.

3. The early recognition of defects before they are obvious to the parents.

4. The awakening of general interest in child health and child welfare.

5. Last but not least, the education of physicians.

DISCUSSION

Dr. Anna E. Rude, Children's Bureau, Washington, D. C.—Minnesota has approached an ideal in rural child welfare work that very few of us would have believed possible. It is rather difficult to conceive of a busy city expert ready to devote his time to rural child welfare clinics. Dr. Huenekens' paper emphasizes some very fun-

damental points in the solution of child welfare problems. He has shown us that lack of funds is no handicap. Minnesota was not handicapped in this way in spite of having no appropriation for this year's work. It all goes to prove what Dr. Bradley said, that it is a question of creating the interest. As soon as you have the interest created, there will be found a way for carrying out the work. The second important point which Dr. Huenekens emphasizes is the value of co-operation not only between organizations, but between all educators, since all preventive work is so largely an educational problem. He emphasizes also that in the present rapid popularization of child welfare work, the work does not need direction and standardization, and that you can hope for efficiency and success only through this co-operation and co-ordination. The educational value of these conferences can not be overestimated. I use the word "conferences" or "consultations" in preference to "clinics," which, generally speaking, refers to a place for the sick child which obviously these children's conferences are not. They are intended for well children, so that we usually prefer to speak of them as health centers or consultation centers or well baby conferences. It is most important, as has been brought out in the Minnesota plan, that the work done at these conferences should be of a high standard. I am sure there is nothing more gratifying when working in a rural locality than to hear mothers say after we have examined their children, "Why, I had no idea it was going to be such a good examination." That is a very frequent comment. With the public educated in this respect, it really creates a demand which the medical profession will have to meet, and which I am positive it will meet, for we heard at the meeting of the American Medical Association in June that hereafter all medical college curricula will include a section on "preventive pediatrics." Another important point made by Dr. Huenekens is the value these centers have in serving as a nucleus for the extension of other work, and this is particularly true, I think, regarding prenatal clinics in rural localities. There are very few rural localities which are really ready for prenatal work in spite of the great necessity for it. It is possible to gain the confidence of the parents first through a well children's center so that a prenatal clinic is a very natural development. That has been demonstrated in very many places. You may be interested to know that in looking over some recent figures in our Bureau, taken from six different rural localities in six different states, there were approximately three thousand cases, and out of that number there were exactly five mothers who had had what might be considered adequate prenatal care. Eighty per cent. of them had had no care whatever.

One point which Dr. Huenekens has not touched upon is what Minnesota is doing in follow-up work after these conferences are held, and what facilities are being provided for helping the communities to care for the correctable defects which have been pointed out. In this discussion we could very profitably have an experience meeting on how different rural localities are meeting just this problem. The most discouraging part of all rural work is the fact that even after you have told the parents that the child is not up to normal or needs corrective work done, there are no facilities to which to turn to have the work done.

Dr. Huenekens closes his paper with what seems perhaps an ideal remote of accomplishment, and that is that he is looking forward to the time when state and Federal aid will make child welfare work universally available. Now it is with just this vision that the Maternity and Infancy Bill is being fostered by the Children's Bureau. This bill, some of you may know, was introduced last year and passed its committee hearing, but it was so late in the session that it did not come up for further discussion before Congress. The bill has been reintroduced recently. It represents a voluntary effort for co-operation among three Federal departments doing health work by the organization of a Federal Board of Maternity and Infancy, which will be composed of the Commissioner of the Department of Education, the Surgeon-General of the United States Public Health Service, the Secretary of Labor and the chief of the Children's Bureau. The bill provides for an annual appropriation of $10,000 to each state, provided the plans of the state are approved by the Federal board. It also provides for an additional appropriation according to population, provided that sum is matched by a state appropriation. That, as you see, affords very liberal assistance, and has precedent only in the Educational Vocational Bill. The bill, in its redraft, provides that these Federal funds may be administered through the state divisions of child hygiene or child welfare. When you realize that we now have thirty states that have divisions of child hygiene or divisions of child welfare, I am sure with this additional stimulation there will be no question that the other states will very rapidly create such divisions. It is almost impossible to realize that there are now thirty states organized or in process of organization to carry on intensive child welfare work, but with this awakening there can be no question that we may all be thoroughly optimistic as to the future of child welfare in this country.

Dr. W. S. Rankin, Raleigh, N. C.—How much per diem do you pay pediatrists for holding clinics? Also may I ask whether these clinics are held in small villages or purely rural communities?

Dr. J. H. Gerstenberger, Cleveland, Ohio.—Dr. Huenekens is very wise in insisting that this work be primarily a government function. I should also like to mention the availability of automobile clinics for rural work. During the war a great number of automobile dental clinics and infant welfare clinics were made in Cleveland and sent abroad, and this idea stimulated our just deceased and much lamented chairman of the Cleveland Children's Year Committee, Mr. A. S. Chisholm, to donate, together with Mrs. Chisholm, such an automobile infant welfare station for use in and about Cleveland. It was used during the summer of 1918 and was found to be a satisfactory means of getting to districts of a large city untouched by the regular municipal infant welfare stations and to small towns and villages in the country

surrounding Cleveland. This auto was completely equipped with running water, gas lights, table, a tent which could be used for a dressing room. On the top of the machine it is possible to put a moving picture screen. I imagine it could be used very well in this rural work.

Dr. Merrill Champion, Boston, Mass.—I promised Dr. Huenekens to say a word as to how the Massachusetts scheme for rural clinics compares with that of Minnesota. I was glad to hear that his clinic was a prophylactic one rather than one for treatment. In this respect I am afraid that I shall have to differ with the ideas Dr. Cooper expressed. I admire his courage, but rather doubt the wisdom of carrying on treatment clinics at the present time. Our plan in Massachusetts has not got quite so far as the Minnesota one. Last year we employed a physician for the period of the rural fairs. We had a tent and an automobile of our own; with these our physician traveled about holding clinics similar to those the State Board of Health of Minnesota had. Even before that, however, we had in isolated instances held clinics of the same sort in some of the small country towns. We were very successful in getting the co-operation of the general practitioner. That is a very important element. We always took pains, after the examination was over, to see that the visiting nurse in the neighborhood got the names of the cases which needed following up.

I feel that ultimately, with the extension of the health center idea, a great many of our problems of this sort will be solved. I may say that we are asking our Legislature this year for an appropriation to make a traveling rural clinic a permanent procedure.

Dr. Florence Brown Sherbon, Topeka, Kan.—It seems to me this whole movement is developing with tremendous rapidity. I am wondering if the time is not ripe for the Association to make an active attempt to standardize methods and particularly perhaps at this time to do a little toward standardizing terminology. We have used the terms "clinic" and "conference" and "station" and "center" interchangeably in our discussion here. I believe that we should go on record as unifying these terms. Possibly we might decide that we will use the term "station" and apply it only to places where research is done; "center" to consultation work and to permanent consultation centers; "clinic" only to places where treatment is given, free or otherwise, and "conference" to places where temporary meetings are held for the purpose of advising mothers and examining children. I do feel that we should be a little more clear in our use of terms, as this will help us to reach clearness in method.

Dr. Huenekens (closing).—The Minnesota pediatrician's service is evidently not as expensive as in South Carolina. They receive $25.00 a day. The places where we hold these clinics are small towns, but when we return to a county we do not return to the same town where we gave the clinics before. In this way the clinics are not so successful as to numbers, but perhaps more so in other ways. I know some of the most successful clinics were given in the Minnesota iron range, where living conditions are appalling and where numbers are not great, but where we felt we did great good.

Dr. Rude spoke about the new law. I think the modification of the law this year greatly improves it; now the work is done under the child welfare division of the State Board of Health. We are also getting the names of country physicians and sending them a copy of our record, in that way getting the confidence and co-operation of the physicians.