already symptoms of glandular or early pulmonary tuberculosis requiring close supervision and treatment. In spite of occasional attempts to prove by comparative statistics that children do no better under such conditions than in so-called "well-ventilated schools," the atmosphere of which is often atrocious, concrete instances of facts proving the contrary are more convincing than columns of figures. In support of this, I should like, in closing, to quote from a letter received last year from a former graduate of the Sharon Sanatorium, who, after a brave fight for three years, left Sharon seventeen years ago to resume her place as teacher in a public school in one of our large Massachusetts cities. She wrote: "You will be glad to hear that in the last fifteen years I have scarcely lost a day from my teaching, and, more than this, I always impress upon my children the value of fresh air as taught me at Sharon. This winter I kept my schoolroom windows open all the time and not one of my scholars was kept at home with a 'cold,' as against epidemics which occurred in most of the schools in my city."

Evidence like this, which is not exceptional, teaches one to be very chary of accepting theoretical arguments *pro* and *con* which are not based upon practical knowledge and experience.

I trust that these opinions may be of use to our League in urging the adoption of similar methods throughout our State and elsewhere.

In conclusion, I wish to call the attention not only of our own members, but of the public generally, to the great work of the National Tuberculosis Association and to the necessity of generous support from the citizens of the United States. The recent call for aid should meet with generous response on every side. By becoming a member of the National Association, for \$5.00 a year, one may feel that he is doing his small share in bringing under control the disease which still causes the largest mortality list in the world.

ADEQUATE COMMUNITY ORGANIZATION FOR HEALTH EDUCATIONAL WORK.

BY MARY A. ABEL, FRAMINGHAM, MASS.,
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THE writer of an editorial in a recent publication said in regard to the repeated use of the

word "intensive," that, after all, it simply meant doing things "well"; that in the effort to use the newer word more often the force of the other simpler and older word was lost sight of. We are apt to think that we are doing things better than usual or in a new way when they are merely being done well.

It is this well-done method which every anti-tuberculosis organization in the country seeks to see carried out in its own community,—a method which will, in its educational work, reach every man, woman and child of all stations. Nor has the program rendered the highest usefulness to the community until it has, acting as a dragnet, turned up every possible means of educating the public.

A thorough piece of organization for the purpose of educating the public in the different phases of anti-tuberculosis work will use every available grouping of society, every agency, every line and channel in spreading the gospel. There will be found a distinct channel for every group of individuals through which they can be reached and, failing every other means, personal evangelism comes into play. This is a slow process, however, though certainly the most valuable; but it is difficult to imagine a man, woman or child who has not in some wise a community connection. Those homes, for instance, not represented in the school census will have connections with organized societies, those not in industry have other contacts, and so on.

Upon sensing the personality of any community it will be found that every village, town or city has certain agencies, more or less perfectly organized, available for publicity purposes. The schools, churches, newspapers; organizations of all kinds—including social, religious, fraternal, education, business, and philanthropic; the theatres, billboards, business houses, public buildings and factories are some of the more usual ones, and almost every town will certainly yield some or all of these. These should come in for their share, and no scheme is complete without having tried out fully their resources.

It seems to me we do not realize the incompleteness of our work until we have made a complete catalogue of the many avenues at our command. Because of personal experience right here I venture to say that the average worker, no matter how well she knows her community, will be appalled at the amount of or-

ganized material there is ready for her use. In a survey of the organizations for women and girls exclusively in Framingham we were amazed to find they numbered sixty. Think of the valuable material already amassed and of the possibilities for work with that group alone!

That brings us to one of the first and most important steps in any educational scheme,—the tabulating of data concerning such organizations as may be used in educational propaganda. It is difficult to estimate the value of such information to a worker. In Framingham we prepared an outline questionnaire called "Know Your Own Town," dividing it into chapters dealing with the history, government and finance, housing, health, recreation, industry, immigrants, child welfare, delinquency, charities and organizations of the town. This was turned over to the principal of the high school, who, in turn, divided it among the various classes in the school according to their particular study. Thus to the class in civics was given the chapter on history and government, to the science class that on health, and to the physical culture classes the subject of recreation, etc.

The subject of health was accented, of course, and this piece of work has introduced us and our scheme for health to practically every high-school student in town. In addition to the knowledge every student is going to get out of doing this piece of investigation, when published the pamphlet should form a valuable index for the citizen who wishes to know his or her own town.

That was our first entrée into the schools, followed by the second piece of educational work,—that of forming Health Crusader Clubs in every grammar grade of all the schools, beginning with the fourth grade. To you who have not initiated the movement in your town, I wish to say that, in my opinion, a very valuable opportunity is being neglected. The "playing a game" spirit in the Crusader organization makes it attractive to the child; all the time he is forming those very valuable health habits which will remain with him. The teaching of simple good health and hygiene habits to children is one of the most vital things in all anti-tuberculosis work.

The eight health chores the child agrees to do every day are such simple things as brushing his teeth, drinking a certain number of glasses

of water, washing his hands before every meal, being in bed a required number of hours and keeping his windows open in his bedroom. He is given credits on his score card for every chore he performs, and there are honors in titles and pins, which act as incentives.

Can we not imagine the vast value to the anti-tuberculosis worker in having the children of a community trained and educated in matters of health. Since tuberculosis in its incipency is largely a disease of young life, the emphasis on healthy habits must certainly be placed there. The work is made easy and more pleasant than other lines of work by the very reason of the plasticity of the material with which we are working. You who have had difficulty in persuading, begging, bribing or teaching an adult patient the use of a sputum cup will appreciate the difference between that labor and the joyful work with the children. Again and again, teachers in the grade schools tell me of children who try to anticipate the time for marking their chore cards. They are so eager to check up in the morning the score for the day previous that they ask to have that put first in the day's schedule.

Meanwhile who shall say the children are not educating the elders in their homes? One mother came to me with an anxious look on her face and said, "Is it necessary for my boy to drink four glasses of water *every day*? He is trying so hard to keep the chore card, but I am afraid all that water will give him floating kidney." She seemed really relieved to know it probably wouldn't.

While the Crusader organization is invaluable, there are other educational measures needed among the children. Some of the Health Plays published by the National Association for the Study and Prevention of Tuberculosis are excellent and are not to be neglected in work with children. The teachers are glad to have these, since very little is required in the way of scenery and make-up. A list and description of these can be secured from the National Association office. If used in connection with the Crusaders, it serves to fasten the children's interest.

Some pertinent findings in our Framingham experience have taught us that continuous publicity, through the clubs and lodges, the newspapers, the churches and the factories, is the policy we must pursue. We should see to it that every club and organization have a member

appointed regularly to give our news at the meetings. We ought to get our matter to the "current events committee" in every club, so that it will have place and standing with other news of importance. Newspaper material should be regular and not spasmodic. Generally, the local newspaper will be glad to furnish a specified space weekly if not daily. The churches furnish valuable material by the very personnel of the membership. The co-operation secured from them on Tuberculosis Sunday shows where they stand in regard to helping on the big job of getting over to the public the message that tuberculosis is preventable and unnecessary.

In Framingham we are ready to issue a series of ten posters of large size, printed in attractive colors for distribution in the factories. These will be distributed in serial form and each one will carry some eye-arresting phrase. The worker in industry must not be neglected, and the educative force of seeing every time he enters or leaves the shop some line about his health may do more for him than talks or books could ever do.

The theatre is a potent force, although it cannot be used as often as other agencies, especially in tuberculosis work. When it can be secured, a slide run in occasionally at the moving pictures houses will pay for itself many times over.

In Framingham we have developed a very thorough organization of the community for educational work with the Demonstration by means of lay committees which cover the entire town. It has been our aim in this to keep the machinery as simple as possible, so we have divided the town into seven districts which include our rural population. Our plan has been to ask some one man or woman on each street to represent a street for the Demonstration in such matters as birth and sickness reporting and general educational work. It can be readily seen how in this manner we can get in touch with every section and street of the town and come to know the people as we could not in any other way. By knowing the committee members personally and intimately we feel assured of a sympathetic coöperation. Much time has been put into educating the committee member beforehand and in assuring ourselves that she or he really understands the purpose of the Demonstration, and the big part they play in it. The committees number from twenty-five to fifty, according

to the population of that district, and there is one chairman who represents the entire district in the Advisory Council of the Demonstration. The membership is mainly composed of busy people, so there is no intention of having regular or frequent meetings. The big fact in connection with the plan is to know that here we have an interested, intelligently informed group of people who will assist the Demonstration at any time as the need for special work comes up.

The personnel of the committees is interesting, and much time has been spent in their selection. The appointing of an unpopular resident on a street would be met with disastrous results, and the aims of the work defeated. This is especially true in those sections populated by foreigners, such as Italians. Sometimes many calls will be made on a given street before the right person can be found, but this loss of time is probably justified in the end. Running through the file of these names under the first letter of the alphabet we find listed a most diversified membership: Here is a nurse, an engineer in a foundry, a Normal School senior, a retired business man, a busy mother, a young Jewish immigrant, a clerk, a street car motorman, etc.

As each district committee becomes familiar with its section's particular problems, they will interpret them to us. In the first district organized the committee felt that the need for cooking demonstrations was greater than anything else, so accordingly the Domestic Science Department of the Normal School located at Framingham, was called upon for assistance and have been doing group work in the selection and preparation of food. Another district feels the need for home nursing and first-aid courses, and they will be taken up by the physicians and nurses from the Demonstration staff. In another district the work will probably be infant welfare work, and so on, as the various sections express themselves and their needs to us.

In Framingham, since the Demonstration is more or less temporary and its accomplishments, therefore, somewhat limited, we feel that one of the most important results, and one where we will make our biggest impress on the town, will be through the use of this intensive method of organization. If we can leave behind, as one of the results of the Demonstration, a community thoroughly organized to fight tuberculosis and

intelligently alive to the necessity for keeping awake public consciousness, we will have given Framingham the very highest and best service. If we can have intelligent citizens to fight for the eradication of tuberculosis, we need have no fear for the future fight against the disease.

RELATIVE VALUES IN ANTI-TUBERCULOSIS WORK.

BY PROFESSOR C. M. HILLIARD, BOSTON,
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THE tuberculosis problem is one of the most complex and confusing of all public health problems, having many aspects which appeal in their relative importance with different emphasis to workers who may be specializing in their respective fields. It seems worth while, therefore, to attempt an analysis of the salient features of the campaign for the prevention of this scourge, and to try to attribute to each factor a certain weight which will indicate its relative importance. Such a method has been applied with great success to the general problem of public health work by Dr. Charles V. Chapin, George C. Whipple, Franz Schneider, and others, and it seems quite likely that a more intensive analysis of the problem of child hygiene, infant welfare, tuberculosis, and other health problems will throw light on what our course of procedure should be in the future. There is always a strong tendency for scientific progress to outstrip the practical application, and our whole knowledge of communicable disease, and the science of prevention, is so new and is growing so rapidly that we should frequently make an inventory to see where we stand. It is this idea which I have in mind when I attempt the difficult problem of contrasting the importance of different factors in the anti-tuberculosis campaign.

Tuberculosis has been the most important cause of death amongst civilized peoples as far back as we have reliable vital statistics. For this reason it has probably received more attention from the medical and sanitary professions than any other disease. Its prophylaxis may be compared with the different stages in the development of our knowledge of communicable diseases. The infectious nature of tuberculosis was established by Villemin in 1865, almost two decades before the discovery of the tubercle bacillus by Koch. Prior to that time

the nature of the disease was shrouded in mystery, it being looked upon as an hereditary disease, or as due to peculiar and unavoidable conditions of surroundings. With the definite knowledge of its communicability and with the accompanying sanitary awakening in England, which rapidly spread to other civilized nations at this time, a new epoch in combating the disease arose. It became apparent that this disease, as others, was associated with filthy human surroundings, and the attack was made in a hit-or-miss fashion upon dirt and decomposing matter.

With the demonstration of its specific etiology (1882), a new era arose. The foci of infection were very apparently associated with human beings suffering from the disease, and the hope was raised that at last a means of eradicating the disease had been discovered by preventing the spread of the germ from these centers. But in the last decade of the 19th century emphasis was being more and more concentrated upon cure. The establishment of the first sanatorium at Saranac by Dr. Trudeau in 1885 blazed the way to this new era, and the results which were immediately forthcoming were of an exceedingly hopeful character. It was definitely demonstrated that under the treatment given at sanatoria improvement of the patient rapidly followed. Still another element was added about this time (1890) by the discovery of tuberculin, and for a time it seemed as though a specific curative treatment would solve the problem. At the opening of the present century, a new appreciation of the social aspects of the disease arose, which led to the inauguration of the personal contact of the anti-tuberculosis worker with the patient in his home. I refer to the inauguration of the public health nurse in 1904, although it is worth noting that in 1899 two medical students under the direction of Dr. Osler had done house-to-house work for the sake of educating the patient and family, and of putting the patient in contact with the proper organized social relief. (Gardner, "Public Health Nursing," p. 25.)

If we examine the death rate from tuberculosis over a long period of time and with large enough groups, the hopefulness of the measures that have been tried is not altogether inspiring. We find that tuberculosis has been on the decline as a cause of death for generations, and, as Pearson has pointed out, in England, at least, the rate of decline is less rapid