CHANGING CONDITIONS IN RURAL PRACTICE

by

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CHANGING CONDITIONS IN RURAL PRACTICE

During the past three or four decades many changes have taken place which have influenced the practice of medicine in rural communities. The country doctor many years ago practiced his art in his own territory disturbed very little by anyone. Midwives and charlatans were his only opposition. He depended on his own resources and was content with meager returns for his services. After a time, discoveries and inventions were made which brought about changes in this situation. Furthermore, within recent years the number of physicians has decreased in rural communities and some locations are vacant. This has become the subject of much discussion among lay people as well as among professional men. Since my father was a country physician, I am particularly interested in rural practice. I shall undertake to discuss the above subjects as they influenced his practice relying on my mother for information regarding the period before my time. The opinions, findings and conclusions of many workers who have studied this matter will also be included in this work.

THE COUNTRY DOCTOR

The old country doctor glorified by some and condemned by others surely had virtues which much outweighed his faults. Mc Laren's description (Ref. 20) portrays our idea of him. Dreiser (Ref. 5.) depicts him in a pleasing manner also. The position of the old country doctor (a few of them still exist) was indeed an enviable one. He was held in great esteem by all the countryside. He ranked next to the clergyman and, with some, he was above him. To him the people came for advice and consolation as well as for medical attention. I remember well how many of the calls on which I accompanied my father were not to treat the sick but to try to settle domestic difficulties. The old country doctor during his long stay in the community learned the peculiarities, idiosyncrasies and lives of all his clientele. (Marshall. Ref. 22). He is criticised for not having kept records but such were not necessary since he knew all of his people extremely well. His fees were small and his worldly gain was of minor importance.

The scope of his work was, indeed, large and varied. To quote Graham, (Ref. 11) "He goes into the comfortable farmhouse, into the tenant cabin, and within one hour's

time serves the affluent and the indigent, the intelligent and the illiterate and ignorant. Today he treats typhoid fever, menorrhagia, and pulls the children's teeth; tonight he applies forceps and subsequently battles with puerperal convulsions or postpartum hemorrhage - sometimes both. Tomorrow he operates for appendicitis or trephines for fractured skull. In the meantime, he has to contend with a hysterical woman." Impossible things were sometimes expected of him. An Indian came into my father's office one day and took from his pocket one of his toes which had been cut off some time previously. He thought that the doctor could sew it on for him. The country doctor had to do the best he could with what was supplied him. As Graham says, (Ref. 11) "If it should be a fracture of bones, he cleanses and adjusts the parts, rips a board off the smoke house roof or a paling off the yard fence, and with a jack knife improvises splints, converts a shirt into bandages, and binds it up with harvesting binder twine; instructs the patient to stay in bed, keep the parts quiet and get well." His medical equipment and aids in diagnosis were scanty. According to Vaughan: (Ref. 35) "Every physician carried within himself his

whole armamentarium. The use of the test tube, microscope, and the Roentgen ray as aids in diagnosis at that time lay in the future." His work was tiresome and difficult but most of the time he enjoyed it. My father once remarked that it seemed strange to be paid for doing what one liked to do. The old country physician knew his limitations and when some extremely difficult problem presented itself, he called some other capable man in consultation. This was looked on as an ominous sign by the family of the patient since they knew the case must surely be serious to surpass the powers of their able physician.

As time went on, changes took place which influenced the country doctor's practice. Discoveries were made in medicine. Diphtheria antitoxin came into general use. My father used it successfully when it was still looked on with suspicion by the physicians in the nearby cities. The X-ray machines were perfected. Serological tests were discovered. Hospitals were improved. Sanatoriums were built. Later, laboratories were distributed throughout the state. The intelligent country physician accepted all of these and made use of them. Nevertheless, he still depended more on himself than on these diagnostic aids. Changes of another nature took place. Automobiles were invented, roads were

improved, and telephones came into common use. He readily availed himself of these improvements.

We owe many early achievements to rural physicians. In 1806, Mann and Danielson at Medford, Massachusetts, by doing necropsies on certain doubtful cases found that a purulent inflammatory condition of the meninges, -- cerebrospinal meningitis as it was later called, -- caused the deaths. Mc Coy of Clark County, Illinois did valuable work on this disease. Many other country physicians made contributions to this subject. William Beaumont, who did his historic work on Alexis St. Martin, the Canadian voyageur, was an army physician stationed at a rural post. Others were Ephriam Mc Dowell who did the first ovariotomy, and Marion Sims who in Montgomery, Alabama solved the problem of vesicovaginal fistula. Colmer of the Parish of West Feliciana in Louisiana first suggested the existence of poliomyelitis in the United States. (Ref. 35). On March 30, 1842, Crawford W. Long in Jefferson County, Georgia anesthetized James M. Venable with ether and removed a small tumor from the back of his neck. (Sims. Ref. 33). Jenner and Robert Koch were country physicians. (Ref. 9). Nathan S. Davis, who has been styled the father of the American Medical Association, was practically a country physician. (Ref. 11).

THE RECENT GRADUATE COMPARED TO THE OLD PHYSICIAN

The young country doctor just out of school feels the lack of the finer methods of diagnosis more keenly than did the old physician. The latter did not have them to begin with and, therefore, learned to depend more on himself. The recent medical graduate, however, has seen the advantages of X-ray for fracture cases. He realizes that a laboratory is quite necessary to confirm his diagnoses and to determine the proper treatment. He feels rather helpless without a medical library. (Ref. 35). The lack of hospital facilities hampers him considerably. It is true that he can send his patients to a hospital but in the majority of the cases this means that they cease to be his patients. (Ref. 7). He has learned during his stay in a medical center that in a difficult case it is beneficial to himself and to the patient to call into consultation someone of wide experience and skill, yet he cannot easily do this. Another disadvantage is that his scientific interest is not spurred on by frequent contact with other physicians. (Ref. 23). Sometimes the young physician wonders how the old doctor can practice medicine under such handicaps and begins to doubt his true worth.

The recent graduate, however, can avail himself of the new opportunities if he wishes. He can drive to the city for his X-ray work and can bring his specimens to laboratories there for examination. The Extension Division of the State University makes it possible for him to obtain those books he may find necessary. Nevertheless, all of this is done with some inconvenience to him.

In the study of his cases, the recent graduate usually makes a more thorough examination of his patients than the old physician does. His treatment is more scientific. Many of the older men use their drugs empirically while the young physician considers their pharmacological actions. But, all in all, the old doctor does extremely well, and what he lacks in the knowledge of sciences, he more than makes up for by his experience.

MIDWIVES AND CHARLATANS

When my father bagan to practice medicine in our locality in 1887, a few quacks were there and midwives were numerous. An old minister used to dispense pills and attempted to treat the sick. He moved away from the community a short time later. There was another, -- the housekeeper of a nearby priest. Her practice of medicine was similar and met with about the same success as that of the old minister. Midwives, however, did all the obstetrics. One of them in particular left a trail of sepsis after her. My father was then called into these cases and often found the patients "lingering in the hazy twilight of another existence." The midwives became less common but did not cease to exist until about 1903.

Mc Swain's description of a midwife will be of interest here: (Ref. 21).

"She had on her person a long cotton or calico dress, a big apron usually made of homespun cloth, and a gingham bonnet. She was usually possessed by nature of a long nose which proboscis had a habit of dripping more or less of the secretions of the nasal mucus membrane. Her eyes were more or less watery also. She

had a large reticule which she took along on her 'cases' in which receptacle were a cob pipe and some smoking tobacco which had been stripped off the tobacco stalk and twisted up. She may have possessed a barlow knife with which she cut off of the said twist of tobacco a quantity sufficient to fill her cob pipe. Matches were not common at that date so she lighted her pipe with hot coals from the fireplace. Then she composedly sat down and smoked notwithstanding that the woman who lay on a bed was grunting and complaining and begging for relief.

"After so long a time, the 'granny' assayed to make an examination, having first (maybe) washed her hands. She called for some hog's lard with which she greased her finger and inserted it into the vagina, and then felt about for the os uteri to ascertain whether it had dilated or not. I do not want to be untruthful nor judge harshly, but I have some misgiving whether she really knew what the os uteri was.

"But taking it for granted that the woman was in actual labor, the pains would increase in severity and the woman would give vent to her feelings, in groans and complaints, and beg for relief. The midwife would assure her that 'everything was all right' but she sat

cross-legged and smoked her cob pipe. If the aforesaid midwife had discretion enough not to meddle too much, nature in most cases brought down the head of the child against the perineum and the pains growing harder and more severe, the head of the child emerged into the outside world. Nature is very wise and Providence ordained that children should be born with a minimum of trouble, that is if a woman was not in some way deformed."

Pusey shows that midwives are increasing in number due to the lack of country physicians. In some rural districts they are becoming the reliance in childbirth of half the community. (Ref. 27). He fears that our situation in obstetrics may become as it is in England. This statement appeared in the British Medical Journal of November 14, 1925: "Obstetrics is the function of the midwives except in abnormal cases and for antenatal and postnatal conditions." (Ref. 29). Whatever may be the situation in some parts of the country, midwives are very uncommon in our part of the state and do not exist in our locality.

According to Pusey, (Ref. 28) irregular practitioners are going into small towns in considerable numbers where doctors will not go. However, in the Pre-

liminary Report of the Commission on Medical Education (Ref. 38) it is stated that of two thousand graduates of a school of chiropractic, 90.2 per cent are located in communities of fifty thousand or more. In the rural districts of our community irregular practitioners are very uncommon.

ADVANTAGES AND DISADVANTAGES OF RURAL PRACTICE

One of the advantages of rural practice is the position of respect and devotion which the country doctor holds if he is deserving of it. He is one of the prominent men of the community and is not lost in the midst of many just as great as he, as is the city practitioner. He is close to Nature and sees all the wonders that the seasons bring. "The odor of the new mown hay, the morning call of the quail, the lowing of cattle on a thousand hills " (Ref. 24) are all his to enjoy. Among other things, country practice develops ones powers of observation and makes one more self reliant. (Ref. 16). Also there is the satisfaction that the country doctor may have of doing laborious and difficult work well which many shirk.

The disadvantages of rural practice, however, outweigh its advantages. The physician in the country lacks many of the facilities for the practice of medicine. This was not true many years ago. "Every physician carried within himself his whole armamentarium. The use of the test tube, the microscope, the Roentgen ray as aids to diagnosis at that time lay in the future. Medical books

were rare, but they could be obtained and evidently were read as intelligently by the country doctor as by his urban brother. The great men of the era were those who were posted in the literature of medicine, were clear thinkers, and skillful practitioners --it mattered not whether they lived in small or densely populated communities." (Ref. 35). Today the practitioner, especially the younger man, needs the X-ray, the laboratory, and the medical library for the conscientious practice of medicine yet he cannot afford to get them for himself. (Ref. 23). He sees the advantage of the hospital for the treatment of some of his cases but if he brings them there he must usually turn them over to some other physician. (Ref. 7). He craves the association with fellow practitioners and knows that it would stimulate him to study and to work more earnestly but in the country he has very little of this. The country doctor usually has not the time or cannot afford to leave his practice to attend meetings of medical societies.

Rural practice has many disadvantages from a social standpoint. These for various reasons are noticed by country practitioners more in recent years than formerly. The education of the physician's children is a difficult problem. (Ref. 4). Usually it is necessary to send them

away from home for their academic training. This added to the expense of a college course amounts to a considerable sum and is out of the question for some country practitioners. Furthermore, the country doctor would perhaps rather have his children at home with him at that interesting age as is possible for the city physician. In some rural communities, it is true, there are high schools but these are not so good as the older, better supported, and better attended city schools. (Ref. 4.) In the country there are fewer facilities for recreation. The physician and his family seldom have the opportunity of hearing an address or lecture, or seeing a play or picture that is truly worth while without going some distance to a city. (Ref. 24.) The church of his choice is often so located that it is a great hardship for him to attend to his religious duties. Furthermore, for one who is accustomed to the city it is difficult to overcome the inconveniences of the country. Most country places now have electric lights but very few have gas and water. The lack of these is felt greatly by some. The poor condition of the roads and the difficulties of winter travel are also of importance. The rural physician sometimes is hampered a great deal

by the dissatisfaction of his wife and family. This takes all the enjoyment out of his work and makes him discontented with life. Sooner or later to overcome this, he moves to the city.

The country practitioner usually cannot demand the fees for his work that the city physician can. An explanation for this is that the rise in income level has on the whole been larger in the town than in the country and, as a result, the town physicians have had little difficulty in securing an increase in their fees proportionate to the rise in the cost and standard of living. In the city, too, the specialist with his higher fee schedule makes the general practitioner's fees seem reasonable enough. In regard to the country, there is little doubt but that in numerous areas the purchasing power of the average farmer's income has declined over the last decade. (Ref. 23.) The general agricultural situation is shown by the following comparisons based on studies of the National Industrial Conference Board: (Ref. 38.)

TABLE 1.

Farm Bankruptcies and Business Failures.

	Farm Bankruptcies per 100,000 Farms. (Approximate figures)	Failures per 1,000 Business Enterprises. (Approximate figures)
1910-1915	11-28 per cent	8-11 per cent
1915-1920	11-30 " "	5-11 " "
1920-1921	22 " "	11 " "
1921-1922	53 " "	11 " "
1922-1923	94 " "	10 " "
1923-1924	122 " "	10 " "
1924-1925	124 " "	10 " "

TABLE 2.

Percentage of Population Gainfully Occupied.

	1870	1920.	Per cent Gain	Per cent Decline.
Agriculture	47.6%	23.3%	---	45%
Manufacturing (largely in cities.)	20.1%	30.8%	53%	---
Others (exclusive of mining and transportation	27.8%	32.9%	18%	---

TABLE 3.

Contributions to National Income.

	1870	1920	per cent Gain	Per cent Decline.
Agriculture	26.5%	13.8%	---	48%
Manufacturing (largely in cities.)	23.9%	29.8%	24%	---
Others (exclusive of mining and transportation.)	36.3%	43 %	18%	---

The 15% reduction in the number of fourth class post offices between 1919 and 1925 is another index of the rural situation. (Ref. 38.)

The country physician cannot urge his collections and must often wait for his money. It is sometimes surprising to him how the country people often manage to find a cash fee as large as the village doctor's whole account for a single visit of a city consultant. (Ref. 23.) With his meager financial returns for his work, the country physician finds it difficult to send his children to school and to give his family the comforts he would like to give them. (Ref. 4.)

The competition of the town physician, the town specialist and the town hospital must be considered. With the coming of the automobile, the improvement in roads, and the general distribution of telephones, some of the country people began to drive to town to see the physicians there and, if necessary, went to the town hospitals. In the good roads season the city doctor made "raids" into the country. In most of these cases it was the wealthier folks of the community who patronized him. This took away from the local physician some of the best paying subjects. (Ref. 23.) The town

specialist with his supposedly or actually superior service lures many patients away from the country physician.

To counteract the above untoward statements are the assertions of Good (Ref. 9.) and Langley (Ref. 16.). The former believes that in the country the physician is assured of a good safe income. The latter is of the opinion that the country would be more profitable for the recent graduate than any city affiliation with a specialist or group. Pusey also believes that medical careers in the country are just as well rewarded as in the city. (Ref. 29.)

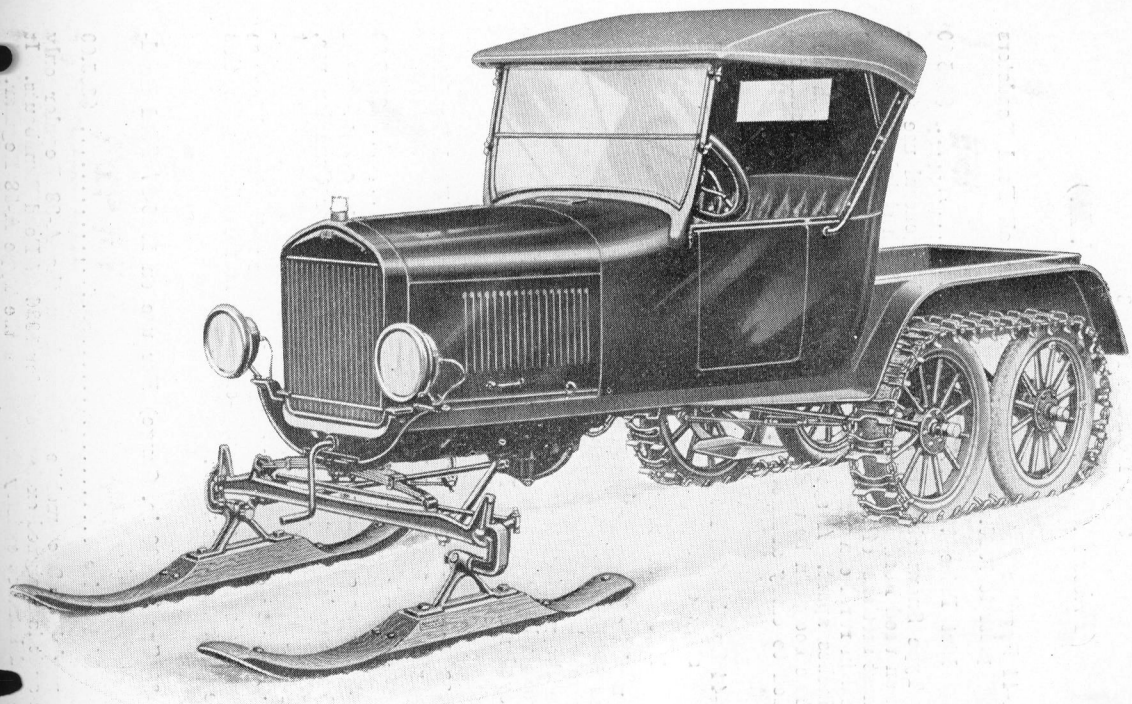
The above disadvantages have played a part in causing the older physician to leave his rural practice and the recent graduate to avoid the country. All of the factors involved in this matter will be considered farther on in this article.

IMPROVEMENT IN RURAL CONDITIONS

When my father began to practice, (1887) the roads in our locality were very poor. They were of clay and were almost impassable in spring and during rainy weather. He used a cart instead of a buggy in making his calls so that the horse would not have too heavy a load. Through the swamps there were corduroy roads. There were a few crushed stone roads some distance from our village. There were no telephones. Whenever a physician was needed, someone had to drive to his office to call him. Then in about 1905 a telephone line was built through our village. At first telephones were placed only in public places and the people had to go to these places to call the doctor. They gradually increased in number and by about 1912 most farmers had them. As for the automobiles, they were a little later in coming. In 1910 my father bought one and from that time on used this means of travel. It could not, however,be used in winter and spring because of the deep snow and mud. With the coming of the automobile interest in roads was aroused and they were gradually improved from then on. After the war, our county (Brown County) took a deep interest in them, and at the

present time a good many of them are concrete. All of them are improved to such an extent that one can travel with an automobile with no difficulty whatever at any time except in winter when the snow is deep. Furthermore, the main roads are kept open for motor travel during that season. For the cross country roads one must use other means of travel. However, a physician can approach his destination with his automobile on the main roads and can then be met by the farmer with his horses and sleigh. A better solution of the problem seems to be the "snowmobile". (Ref. 41.) This is a light automobile narrowed to the width of the sleigh track and equipped with runners in front and a caterpillar arrangement behind. It is used considerably by rural physicians and mail carriers and is said to be able to go through the deepest snow. A picture of the "snowmobile" will be found in this work. The improved roads and automobiles have made it much easier for the country physician. He can now see his patients quicker and with less difficulty. He can also take them to the hospital with more comfort and speed when necessary. I recall a certain accident case about ten years ago or more, and the moans and groans of the injured man as we drove over the rough roads bringing him eighteen miles to a hospital. Today one would

Snowmobile of B. J. Connell, Manchester Center, Vt., topping hardest grade between Lake George and Boston
Sign board stands seven feet from ground



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simply have to drive two miles from his home to reach the concrete roads which lead to the city and its hospitals. Another improvement in the country is the electric lights. A high power line was built through our village a year ago and now almost everyone is making use of it. The old kerosene lamps made night office work or reading very unpleasant. These advantages have made a rural physician's work less difficult and have made country life more agreeable. Similar progress has taken place throughout the whole country.

It is believed that the improved methods of communication and travel have made less rural physicians necessary. (Ref. 36.) This is true but probably not to the extent asserted by some.

REMUNERATION FOR SERVICES

About thirty or forty years ago, the country physician's fees were very small. This was due partly to the inability of the people to pay larger ones but probably more to the low rates set by the midwives and quacks. All that one could expect to receive for a confinement case was $5.00 or $6.00. For office consultations the doctor often charged nothing but a small amount for the medicine dispensed. Calls were made into the surrounding country for from $0.25 to $0.50 per mile counting mileage only one way. No additional home visit charge was made. Fracture cases were done for a very small fee. The charge for vaccinations was about $0.25. Dressings of injuries were $0.25 to $0.50.

These fees increased very gradually. In 1915 obstetrical cases were done for $20.00. Office consultations were $1.00 to $2.00. No charge was made usually for telephone consultations. Country calls were made for $1.00 per mile (counting mileage one way.) The charge for vaccinations was $0.75 to $1.00.

- The present fee schedule of the Brown-Kewaunee Medical Association is as follows:

Office examinations or consultations,	$ 2.00 to $ 10.00
Telephone consultations, day,	1.00
Telephone consultations, night,	3.00
Vaccinations,	2.00
Day visits, city minimum,	3.00
Night visits,	5.00
Country visits - in addition to charge for a city visit,	1.50 per mile.
Obstetric cases,	25.00 plus $1.50 per mile.
Dressing of minor injuries,	2.00
Fractures and dislocations,	15.00 to $100.00

It is needless to say that the doctors have had to make concessions from the fee schedules in the various periods. Since the agricultural deflation following the war, many farmers have been unable to meet the increases in the cost of medical service. (Ref. 23.) At any rate, the country physician must usually wait for his pay. He is beset somewhat also by those in the profession whose fees reduce as they approach the territory of another. It is fortunate that they are few.

MEDICAL HABITS OF RURAL POPULATION

Many years ago the country folks in our community did not call a physician unless someone was very seriously ill. They cared for their minor ailments themselves. Then when my father commenced to practice, they began to patronize him and in a short time called him whenever anything was wrong no matter how trivial. They are now drifting back to their old ways to some extent since they have been without a physician for four or five years.

About twenty-five years ago, the people had a marked dread of hospitals. To send one of them there meant "bringing the patient home in a box." Now they realize them to be the best places for patients with complicated or prolonged illnesses. (Ref. 25.)

At the present time country people submit themselves to surgery when it is necessary with very little hesitation. Some years ago it was necessary for the physician to reason with them for hours before they would even consider an operation such as an appendectomy. Now they sometimes make their own diagnosis of this condition and request an operation. (Ref. 32.)

Due to the education of the people, typhoid fever is less common than formerly. As for smallpox, the recent

epidemics have not been so widespread as some years ago because they submit more readily to vaccination. Slowly but surely they are beginning to see the need of immunity for other diseases. During an epidemic they no longer look upon the health officer as a despot taking their rights from them but as a protector of the community. The people have been taught in regard to the spread of tuberculosis. The "spit nuisance" is no longer prevalent. (Ref. 21.) Sanatoriums have been built and the people are beginning to realize that they are the proper places for tuberculous patients. (Ref. 25.)

The country people in recent years have been building better homes. They are better heated and ventilated. Provisions are made so that they may be more sanitary. In every way rural dwellers are learning about the prevention of disease as well as the proper submission to its treatment.

SUPPLY OF RURAL PHYSICIANS

There is little doubt but that there are fewer rural physicians than formerly. In some parts of the country this is more marked than in others. The writer has compiled the following data for the state of Wisconsin from the American Medical Directories for 1914 and 1925:

TABLE 4.

Rural Population and Rural Physicians in Wisconsin.

	1914	1925
Rural population (entire number not living in towns of over 2,500)	1,336,632. (1910 census)	1,393,205. (1920 census)
Rural physicians (in communities of 2,500 or less)	1,022.	805.
Population per physician	1,308.	1,730.

TABLE 5.

Urban Population and Urban Physicians in Wisconsin.

	1914	1925
Urban population (number in towns and cities over 2,500.)	997,228. (1910 census)	1,238,862. (1920 census)
Urban physicians (number in towns and cities over 2,500.)	1,715.	2,021.
Population per physician	581.	613

These figures (Table 4.) show that there were approximately two hundred physicians less in the rural districts of Wisconsin in 1925 than in 1914. The rural population stayed practically the same comparing that of 1910 with the population in 1920. Though the figures are not entirely reliable since the populations are taken from the 1910 and 1920 censuses, the number of people per physician is computed. It increased from 1,308 in 1914 to 1,730 in 1925. This shows a lack of rural physicians. It cannot be blamed on distribution since there has been no relative increase in the number of doctors in the towns and cities. (Table 5.) Two Wisconsin men who have written on this subject doubt that there is any real shortage here from the standpoint of medical service. (Ref. 32 and 36.) They believe that the better means of communication and travel are taking care of this apparent shortage. In regard to Minnesota, Lyons asserts that there never was a time when the entire population of Minnesota had adequate or convenient medical service. The condition is better now than it ever was due to improved methods of communication and transportation. (Ref. 19.)

Mayers and Harrison (Ref. 23.) present the situation in the county as a whole. They show that there has been

a relative decline in the number of physicians everywhere, in the cities as well as in the smaller towns and in the country. In the cities, however, long oversupplied with physicians, this is scarcely noticeable while in the country, where the supply has never been too great, it has caused hardships to many rural dwellers. The decline in the absolute number of rural physicians has been much more marked since 1916 than in the preceding decade. (Ref. 23.) The following table showing the distance between physicians in 1906 and 1923 gives some idea as to the situation. (Ref. 23.)

TABLE 6.

Average Distance Between Places Having Physicians: 1906 and 1923.

	U. S.	New Eng. Sts.	Mid. Atl. Sts.	E. N. Cen. Sts.	W. N. Cen. Sts.
1906	12.04	6.88	6.36	7.82	12.44
1923	12.90	7.18	6.76	8.82	13.36

	So. Atl. Sts.	E. S. Cen. Sts.	W. S. Cen. Sts.	Mt. Sts.	Pac. Sts.
1906	10.02	8.06	12.52	38.74	21.76
1923	10.26	9.24	13.50	33.36	20.54

Pusey has shown that there is a shortage of rural physicians throughout the country which is becoming more serious. Some parts of the country are "medically help-

less." (Ref. 27.) He reveals that the average age of rural physicians is 52 years and that where vacancies occur they are not being filled in 90% of the states. Medical graduates are not going to the country in any great numbers. In 283 counties studied by Pusey, only 1.4 physicians to the county were graduates of the last ten years. (Ref. 29.)

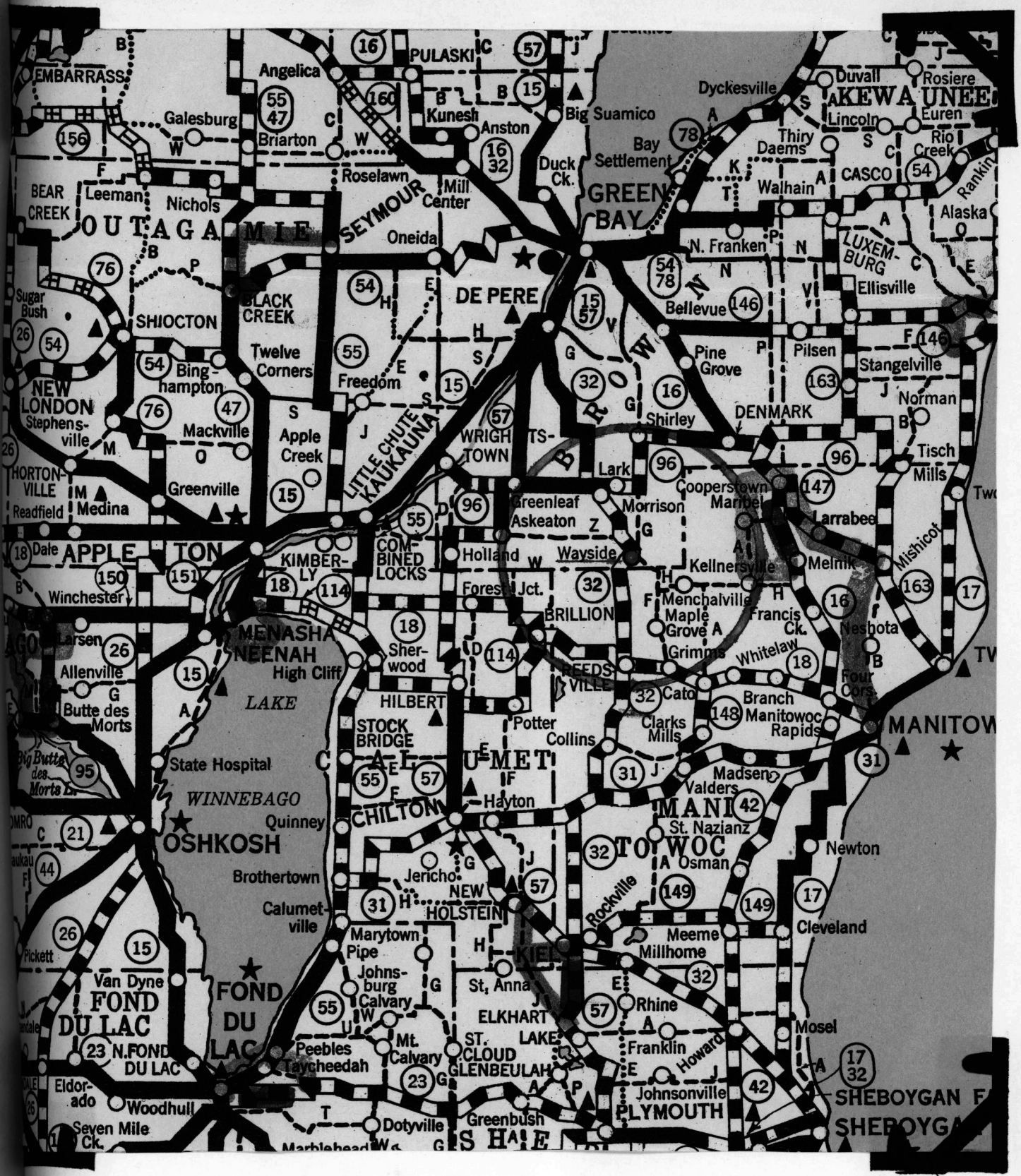
VACANT RURAL PRACTICES

The American Medical Association made an investigation of several hundred vacant rural practices prompted by requests for physicians for these localities. This investigation showed in most instances that (a) the population had decreased during the last three decades, or (b) that there were one or more physicians in other towns from 8 to 15 miles distant, or (c) that roads were almost impassable at certain seasons, or (d) that the request came from a druggist with an office to rent or some other interested persons, even though from one to three physicians were already there. Only occasionally was a district found where chances for a living practice were available. Some of these secured physicians shortly after their request had been received. Some appeared to have a sufficient population but were near a large city, so that medical service was readily available. For the most of them the conditions were such as would not justify recommending them as places for physicians to locate. (Ref. 1.) Sometimes calls for physicians come from dissatisfied patients who want a change. (Ref. 19.) Requests come also from small towns where the one physician has too much work to do or, on the other hand, is disabled by

age or infirmity and does not give full service to the locality. In each of these cases it is doubtful whether an additional physician could practice profitably. Mayers and Harrison state that villages which are so situated that they actually need and would support a physician are few in number. (Ref. 23.)

My father's practice covered parts of two counties, - the southern part of Brown County and the northern part of Manitowoc County. He was located at Wayside, a village of about three hundred people. There was no other physician within a radius of nine miles. The nearby physicians were at Maribel, Kellnersville, Reedsville, Brillion, and Greenleaf. (See map) These surrounding practitioners were as a whole an agreeable group with whom to work. The community had many advantages at that time and now has even more. The roads are among the best in the state. A concrete road will be built through the village this summer. (1927) Another improvement is an electric light line which was brought there a year ago. My father practiced medicine successfully and fairly profitably there for thirty-five years. Since his death in 1921 it has been impossible to find a physician, for that location, who really wishes to practice medicine earnestly and con-

scientiously. A short time after his death a young doctor was obtained. He worked fairly successfully there for about a year and then one day left suddenly, being lured away from his home and family by a woman. It was found afterwards that he had no license to practice medicine. Some time later another physician came. Due to this man's disinclination to work and the Nomadic spirit of his wife he was not very successful and moved away in a few months. Since that time the people of the locality have been calling in the surrounding doctors when absolutely necessary. This makes it very inconvenient since these men have enough to do to take care of their own practices. On this account they are slow in responding to these calls. In emergencies the people are much handicapped. The expense connected with calling a distant physician is another disadvantage to them. They are eager to obtain a doctor but thus far have been unable to do so. It is true that parts of the practice have been taken over by some of the nearby doctors but these could easily be won back. An energetic man could, perhaps, in a short time build up the practice to what it formerly was.



Map showing location and approximate radius of my father's practice.

CAUSES FOR RURAL SHORTAGE OF PHYSICIANS

One of the causes given for the rural shortage of physicians is the lack of facilities for the practice of medicine. Among these are included the X-ray, laboratories, hospitals, libraries, society meetings, and the opportunities for consultations and professional contacts. These have been already considered. Fiedler (Ref. 7) sums it up as dissatisfaction with one's self, one's methods and one's progress.

Among other reasons mentioned is the absence of proper school facilities for the physician's children, and of high class educational entertainment for himself and family. There is also the rather poor provision in the country of churches, and of theatres and other places of amusement and recreation. The condition of the roads and the difficulties of winter travel are also factors. These have been discussed previously.

There are causes also from an economical standpoint. Rural physicians often are not able to obtain sufficient pecuniary rewards for their services. The important factors involved have already been presented. According to Pearl, (Ref. 26) it is the economic side of the situation largely which has determined the distribution of physicians. The following table (Table

7) shows that physicians have settled most thickly where the wealthiest clients were, and least densely where the poorest were:

TABLE 7

Estimated Wealth Per Capita of Population in 1922, and Physicians per 10,000 of Population in 1920

	A. Estimated Wealth Per Capita 1922	B. Physicians per 10,000 of Population, 1920
New England	$3,186.00	16.3
Middle Atlantic	3,352.00	16.3
East North Central	3,062.00	16.0
West North Central	3,588.00	17.0
South Atlantic	2,005.00	11.0
East South Central	1,437.00	12.1
West South Central	1,857.00	13.8
Mountain	3,435.00	16.7
Pacific	3,934.00	24.4

(Wisconsin is in the East North Central Division.)

His following figures (Table 8) show that the abandonment of rural locations by physicians in recent years has been associated with a definite and marked decline per capita real value of farm property.

TABLE 8

Value of Farm Property by Geographic Divisions, in 1910 and 1920, and the Number of Physicians in Small Towns in 1900 and 1923

Geographic Division	Value of all Farm Property Per Capita of Rural Population Corrected for Changes in Price Level.		Number of Physicians Per 10,000 of Population in Towns of Under 1,000 Population.		Number of Physicians Per 10,000 of Population in Towns of from 1,000 to 2,500 Population.	
	A		B		C	
	1910	1920	1906	1923	1906	1923
Middle Atlantic	$551.	$332.	9.1	7.8	14.5	10.9
E. North Central	1221.	961.	10.6	10.8	18.1	11.6
W. North Central	1816.	1681.	10.6	8.5	16.9	11.9
South Atlantic	338.	298.	6.8	6.0	13.4	10.2
E. South Central	332.	301.	10.1	7.2	21.3	14.5
W. South Central	586.	492.	10.2	7.8	21.6	11.6
Mountain	1086.	904.	9.1	7.1	12.4	8.7
Pacific	1601.	1181.	9.3	8.6	11.3	10.7

He concludes that physicians behave in the conduct of life about as would be expected of any group of sensible people.

Another explanation offered for the rural shortage of physicians is the general trend of the population toward the cities. Pusey (Ref. 27.) shows that the trend of young physicians to the cities is easily twenty five or fifty times that of the population as a whole.

Reasons have been given which refer particularly to medical education. They are: (1) the reduction in the number of medical schools, (2) the reduction in the num-

ber of the student body and hence of medical graduates, (3) the elevation of the standards of medical education with lengthening of the course, particularly the premedical requirement, (4) the increased cost of securing medical training not only in direct expenses but in the loss of time during the productive period, and (5) the tendency of medical schools to disregard the preparation of the physician for general practice, and the overemphasis upon research and medical specialties. (Ref. 38). The assertion has been made that modern medical education spoils the country boy for rural practice by accustoming him to the conveniences and diversions of urban existence for so long a period. (Ref. 13).

The number of medical schools in the country has been reduced from 160 to 80. (Ref. 27). Pusey shows that of these 80, 10 are class B. schools. Of the remaining 70, 10 have only two years of medicine. There are then only 60 class A. producing schools. We have now only 44% of the number of producing schools of 20 years ago. The population now is 115,000,000 while then it was 85,000,000. According to him, enough doctors are not being produced. He shows also that the medical schools are not taking care of a large number of applicants for admission. (Ref. 29).

Pusey (Ref. 27) believes that the lengthening of the medical course with its added expense is producing graduates who consider themselves above the world's ordinary work. It is his opinion that the excessive cost has kept from medicine, men who would be satisfied to do the everyday work of the world for moderate returns and who would go to rural communities. He asserts that enough physicians went to the country ten years ago when the medical education was not so long or expensive. The excessive cost prevents most country boys from studying medicine because the incomes of rural people are small. (Ref. 27). Mayers and Harrison (Ref. 23) do not believe that a shortening of the medical course would cause any material change in the poorer boy's or country boy's chances to obtain a medical education. A poor boy's opportunities for studying medicine are limited but it is possible for him to do so if he has the proper inclination and sufficient ambition. He can do so by obtaining small loans, and by earning what he is able during the time that wealthier medical students are taking recreation or sleeping. This does not necessarily mean that there is time going to waste in the medical course, or that it can be shortened. As for the country boys, many are kept from the study of medicine not by insufficient funds

but by the lack of association with young men who aspire to professional careers.

There is a tendency of some medical schools to disregard the preparation of physicians for general practice, and to overemphasize research and medical specialties. In this way, they cause less physicians to go to rural areas. This is seen to be true by the following comparisons: Of Johns Hopkins graduates of 24 years, 1987 to 1920, 2.45 per cent are in towns of 5,200 or less. Of 4334 graduates of the University of Illinois (which lays less stress on research and specialties) from 1890 to 1916, 21.28 per cent settled in towns of 5,000 or less. In 16 years, 1897 to 1913, Johns Hopkins had 965 graduates of which 0.4 per cent are practicing in rural Maryland; of the graduates of the University of Maryland during the same period of time, 11 per cent are in the rural districts. (Ref. 27).

The statement has been made that modern medical education spoils the country boy for rural practice by accustoming him to the conveniences and diversions of urban existence for so long a period. This is true to a great extent.

All of the above factors play their parts in causing the rural shortage of physicians. It is very difficult

to say which has the greatest influence. Medical education, although causative to a considerable extent, is given too much importance.

THE REMEDIES SUGGESTED FOR THE RURAL SHORTAGE OF PHYSICIANS

The remedies suggested are numerous. In order that the rural doctor may not be handicapped by the lack of facilities for the practice of medicine, the community hospital has been suggested. It would afford to the country physician all necessary diagnostic aids as the X-ray, and chemical and bacteriological laboratories. It would have a rather complete medical library. This hospital would be open to all the physicians of the community. As to size, the institution should have one bed for every five hundred inhabitants of the district served. It would be used also as a graduate school to which noted men could be called to give lectures and demonstrations. (Ref. 35). By means of the community hospital physicians would be attracted because it would provide them with facilities for high grade work, and would reduce the amount of home visitation necessary. This would no doubt make a physician's work easier and more agreeable. Attempts are being made in the state of New York to erect hospitals in rural communities where there are enough people to support them. (Ref. 3). The great problem, however, is the

expense connected with such institutions. It is very doubtful whether they would be self supporting except in a few districts. The suggestion has been made that the state should aid in this plan. Kinnaird advises that the interest of philantrophic people should be aroused in this matter. (Ref. 15). Mayers and Harrison (Ref. 23) believe that this proposal goes considerably beyond what is necessary at present to attract physicians. This at least probably holds for Wisconsin. Short post-graduate courses for physicians given at convenient places are suggested. (Ref. 15). This is now being carried out in the state of New York. In Wisconsin, through The Extension Division of the State University, lectures for medical men are given throughout the state at various intervals. Work of this sort, besides the actual knowledge that it imparts, stimulates interest in one's work, and, to some extent, brings the advantages of a medical center to the isolated rural physician.

Another suggestion for the medical service of the rural population is to have all the physicians of the area in question organized around the town hospital and connected with it. The physicians so organized would then cover the outlying areas in rotation or by allotment of territory. Seriously ill patients would be moved to

the hospitals. (Ref. 23). This plan is perhaps worthy of consideration but would be difficult to carry out in winter. At any rate, it lies far in the future.

An improvement of the social conditions in the country, it is thought, would help to attract physicians. The main disadvantages of this sort are the poor roads, and the absence of good schools and churches, and of opportunities for recreation and amusement. To improve all of these merely to attract a physician would be too extensive a plan. (Ref. 23). Colwell believes that the consolidation of the rural schools is a step toward what is desired. These could become community centers. They could be used for church purposes on Sundays, and for various sorts of entertainment on week day evenings. There, also, he believes means of recreation such as croquet, tennis and baseball grounds, or even a golf course could be provided. Here he would advise the establishment of a health center or clinic, or even a small hospital. (Ref. 1). Surely the consolidated schools are helping and will continue to help the rural situation even more, but the latter part of the plan is a dream which cannot be realized for many years. The roads should also be improved. Such improvements would no doubt attract physicians but it is evident that they

will never be resorted to merely for that purpose.

Community action is sometimes considered to secure rural doctors. At times a subsidy is offered to a physician, the amount being fixed with a view merely to supplementing the physician's income. Another form of action is a guarantee of a certain income. If this falls short of the amount stated, the community makes it good. Then there is the employment of the physician on a full time basis. (Ref. 23). The salary and subsidy plans do not receive much favorable comment. The guaranteeing of a certain income seems a better plan. Larkin (Ref. 17) suggests this to attract physicians to small rural communities. Colwell believes that it is the most successful scheme for those localities where a physician cannot be sure of a fair living. The points in favor of this plan are that since the people have a voice in the selection of their physician and can choose one to their liking, they are more likely to respect and patronize him. Many recent graduates could thus be attracted. (Ref. 2). None of these plans has been tried out to any great extent in the United States. Pusey (Ref. 27) opposes them because they are a step toward state medicine. According to Lyon, only socialization can provide medical service in sparsely settled communities. (Ref.

19). Whatever may be the situation in the country as a whole, such drastic measures are not necessary to obtain physicians in Wisconsin at present.

The remedies suggested in regard to medical education are many. A sub-standard class of practitioners for rural communities has been proposed in a few states. This plan is very impractical and deserves mention only. It would be difficult to draw students for such a course and, after their graduation from this inferior training, there is no indication that they would stay in the country. (Ref. 17).

Pusey advocates reducing the medical course to four years. It would consist of three academic years of nine months each, given in two and one half years. This is to be followed by one and a half years spent in a hospital under good supervision. Additional provisions are to be made for the intense training of those seeking preferred careers. In his opinion, medical education should not be so expensive as to produce graduates above the ordinary world's work. This revision of the medical course, by making it less expensive, would put it within the reach of men who, at the price they have paid for their profession, would be willing to meet the ordinary demands of medical service. Physicians would then go to

the country in sufficient numbers. As a proof of this, the fact is cited that this was true ten years ago before the medical course was lengthened. He reminds us of the fact that many of the great men of today had such a course, and asserts that the men now produced under the highest medical requirements are no more useful or resourceful than the ones produced under the conditions of the sort suggested. The premedical course, in his opinion, does not increase the preliminary culture of the student but increases the length of the medical course. According to his plan, the curriculum of the medical school and the teaching methods are to be revised. There is to be no repetition or useless detail. The medical teachers must "boil down" their courses. One of the arguments against a change in the medical course is that the schools are full now. Pusey answers this by saying that they are full of men intending to practice in the city. A few more might be full with men willing to do the everyday work of the world. He believes that the great foundations and the universities would support his plan if it were adopted. (Ref. 27). The statement that this proposed change in medical education would cause more physicians to go to the country is questioned. A study of the distribution of 2,000 graduates

of a school of chiropractic, which is much cheaper and shorter than medicine, showed that 90.2 per cent of these graduates located in communities of 50,000 or more. (Ref. 38). His own figures, however, show that irregular practitioners are going to the rural communities in considerable numbers. (Ref. 28). Many men agree with his ideas as to medical education and his plan for its revision (Ref. 8 and Ref. 31) although most students of the question disagree with him in this regard. (Ref. 30). Finley (Ref. 8) believes that the privately endowed schools should place their requirements as high as they wish but that our state universities should not try to hold up to the same standard. They should be interested rather in preparing men for service in their respective communities. Loeb (Ref. 18) maintains that the premedical course cannot be shortened and that four years of medicine are all too short.

Another suggestion to aid the rural situation is to have a considerable number of medical graduates serve apprenticeships with rural physicians instead of their internships. (Ref. 14). Bailey advocates this. (Ref. 40). Standish recalls the advantages of the small country medical college. Men were well educated and yet were never won from rural life. (Ref. 34). A plan must be devised to get students from the country because

in them lies the greatest hope for rural practitioners. (Ref. 29).

The statement is made that by simply increasing the number of graduates the economic pressure in the overcrowded cities would force physicians into the rural districts. According to Pusey, many city men instead of going to the country would turn to other lines. His aim is to educate men content with the country, not forced there.

The lack of facilities for the practice of medicine must not be underestimated as a cause for recent graduates shunning or leaving rural practice, but the remedy directed at this factor, the community hospital, would cause considerable expense to the community. It would, however, be desirable from the standpoint of medical progress. To improve the social conditions of the country would be much too extensive a plan merely to attract a physician. Medical education probably plays a small part in causation. However, it is doubtful whether any change as suggested would materially help the situation considering the existing economic conditions in the country. A remedy which would overcome the latter to the advantage of the physician would probably solve the problem.

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