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X-Raying a Welsh Community

The story of the Rhondda Fach Scheme will be told in a Home Service programme on Friday. ELWYN EVANS, the writer and producer, explains here the importance of the experiment, and reviews some of the results.

MOST people are dimly aware that it is advisable to have their lungs periodically X-rayed for T.B. Posters, pamphlets—even the managements of some far-sighted firms—urge us to take advantage of the Mass Radiography Service, whose fifty-three mobile units, scattered up and down the country, will X-ray us in our own districts free of charge. And millions of examinations have been made.

The fact remains that only a very small part of the population has responded to these continued appeals. The consequence is that many cases

11. of tuberculosis are only discovered when they have reached such an advanced stage that recovery is difficult. A further consequence is that the medical authorities can have no exact knowledge of how many active tuberculosis there really are in the country. All the information they have to go on is the number of notified cases.

Since the importance of the Rhondda Fach scheme. For the very first time in Britain an attempt has been made to X-ray every man, woman, and child in a given community—a narrow Glamorgan mining valley. Not everyone in fact came forward, but nine people out of ten were examined—a far higher proportion than in any previous investigation.

The Rhondda Fach scheme has a second, and equally important, side. For many years now the miners of South Wales have been the victims of a disabling illness. It has been given many names—miners' asthma, dust disease, silicosis, and now pneumoconiosis. When a man works below ground he breathes a certain amount of coal-dust into his lungs, and odd particles remain there. His lungs gradually become affected, his breathing becomes difficult; and, as the years go by, he gets less and less able to do heavy work. His condition, called simple pneumoconiosis, is unpleasant enough; but there is always the danger that a complication may set in. Complicated pneumoconiosis is progressive; the sufferer is liable to get worse even if he moves from the pits altogether, and his life may well be cut short.

All kinds of plans, practicable and

impracticable, have been put forward to reduce the ravages of this disease, and in 1948 a Research Unit, sponsored by the Medical Research Council, was set up to study it. The unit was stationed in South Wales at the area worst affected (other British coalfields have the same problem, but on a much smaller scale).

Medical authorities had suspected for years that there might be a connection between pneumoconiosis and T.B. of the lungs, and eventually the Research Unit took it as their hypothesis that while simple pneumoconiosis was caused by dust alone, the complicated, progressive, and sometimes fatal variety was caused by dust plus T.B. Or, to be a little more exact, by the activity of the tuberculosis germ, modified by the presence of coal-dust.

Holding this theory was one thing; proving it was quite another. The difficulty seemed to be solved when one of the researchers, Dr. A. L. Cochran, proposed a bold scheme. Why not, he asked, join forces with the Mass Radiography Service? Why not attempt to discover, in a selected mining area, how much T.B. of the lungs there was, and then try to wipe it out? If the scheme worked it would be a triumph for Mass Radiography. It would also prove or disprove the theory about pneumoconiosis. For, obviously, if T.B. were to be wiped out, complicated pneumoconiosis, if really caused by T.B., ought to vanish also.

So, with the help of many local and national bodies, this ambitious pioneer scheme was launched. The difficulties of inducing nineteen thousand adults to come for an X-ray were colossal—and often comic. There were plenty of other obstacles, but unbounded enthusiasm prevailed in the end.

The first investigation is now over, and many important, and some startling, facts have been revealed about both pneumoconiosis and T.B.—facts which will be summarised in Friday's feature programme. But already preparations are well under way for the second survey of the Rhondda Fach. And more surveys will probably follow. This is a big, imaginative, positive scheme. It deserves to succeed.



A medical worker interviewing one of the miners from the Rhondda Fach. Thousands of chest-histories were recorded.

See 'The Microphone in Wales' by Mai Jones

8.0 X-RAYING A WHOLE COMMUNITY

The story of the attempt to examine every man, woman, and child in the Little Rhondda Valley for tuberculosis of the lungs

Written and produced by Elwyn Evans

The Rhondda Fach Scheme is part of a frontal attack on two dangerous diseases. One is tuberculosis of the lungs; the other is pneumoconiosis, the illness that has caused such havoc among the miners of South Wales, and which many experts believe to be connected with T.B. The Scheme is a pioneer one; never before in Britain has a whole community, with few exceptions, come forward—often after much urging and persuasion—to be X-rayed. This feature is based on a recently published progress report.

Elwyn Evans writes on page 12

8.45 RAWICZ AND LANDAUER at two pianos

spin their magical web this week on the theme of 'Water'

FINISHED THANKS - AND BATH

Extracts from the November 1952 issue of the *Radio Times* reporting the Rhondda Fach Scheme.