likely to be between 68% and 77%.⁸ This, however, was before the advent of chorionic villus biopsy, with its advantages of first trimester detection of fetal abnormalities. It would probably be wise to plan for a rate of use of at least 80% by the year 2001 and to have facilities in place for some 70 000 prenatal cytogenetic analyses.

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Portraits from Memory

25—Professor Robert Cruickshank, CBE (1899-1974)

JAMES HOWIE

In 1932 I left the bacteriology department of Professor John Cruickshank in Aberdeen University to spend the second year of a scholarship in the Glasgow University department of Professors Robert Muir and Carl Browning. When I took my farewell of John Cruickshank he said: "You must at once get in touch with my pupil Robert Cruickshank—no relation, but one of the nicest men I know. He will be a brother to you." I accepted this advice, began a lifelong friendship, and profited greatly from it.

Following fatherly footsteps

Robert was ready to be much more than a brother—indeed his role quickly became more like that of a father. Already I was really following in his footsteps. Eight years earlier he had held the same scholarship as I now had. We had both survived the stimulating but demanding experience of being postgraduate pupils of John Cruickshank, and had both of us gone on to work in Glasgow with Muir and Browning. "Don't wait to be put on to work on something," advised Robert. "Ferret out anything that interests you by yourself and get on with it. Unless you do that you'll get nowhere." This was good and accurate advice although, in the end, I was diverted to an investigation that was not my first choice. Every Sunday afternoon I had to visit Robert, enjoy the generous hospitality provided by him and his wife Peggy, and tell him where I had got to with the work I was doing. As the end of my scholarship approached Robert said: "Now you'd better follow my footsteps again and get a job in Belvidere Fever Hospital. There you'll meet the people of Glasgow's east end and learn what acute medicine really is. You'll never be a real hospital bacteriologist till you've seen the clinical side of fevers. And, as the most junior recruit, you'll be

taught by Cecilia Scott [portrait no 6] who has charge of the baby pneumonia ward and who keeps alive children that nobody else would give a chance of survival." This was in 1933-4, still a year before the sulphonamides changed the picture.

[Photograph reproduced from the *Journal of Medical Microbiology* by permission of Churchill Livingstone.]

Robert always insisted that the proper functions of a hospital bacteriologist were twofold. "First, get a right picture of the clinical problem behind every specimen that doesn't yield an obvious answer. Go and talk to the clinician who sent it. Find out if the right question is being asked of you. Collect a second specimen yourself, if you can, and be ready to examine others. That way your work will really become interesting to yourself and your clinical colleagues; and soon *they* will be coming to see *you*. Your clinical experience of fevers will make you useful to them. Second, try to work out if any infection has spread and how the spread may be arrested."

Camaderie at home and abroad

In later years Robert always insisted that the staff of his departments should also practise epidemiological microbiology and accept an educational function, especially in respect of food hygiene. Already in his Glasgow days he was reaching out towards epidemiological studies. In 1936 he left Glasgow Royal Infirmary and became director of the London County Council laboratory at the North Western Fever Hospital in London. With a loyal and enthusiastic staff, he became more and more concerned in his investigative work with the mode of spread and control of infections. In 1939-40 he suffered a serious and prolonged chest infection and counted himself lucky to survive. This testing experience greatly influenced him. He showed incredible kindness

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to and patience with any of his staff whose health was a problem to them. His attitude to patients was equally understanding and sympathetic.

In 1946 he became director of the Central Public Health Laboratory at Colindale. He and the post were not ideally matched, and his contributions fell short of his own expectations of what he should be able to accomplish. He did good work in establishing the department of food hygiene and in helping to promote fundamental studies of airborne infection. In the words of one member of staff, "He established a kind of camaraderie that has never quite left the place." But distant memories of voices from his north east of Scotland ancestry called him to be a university professor, and in 1949 he succeeded Sir Alexander Fleming in the chair of bacteriology at St Mary's Hospital Medical School. In 1958 he was invited to the chair of bacteriology in Edinburgh and here he continued his many activities until his retirement in 1966. He remained essentially an epidemiologist with a worldwide outlook and an exceptional willingness to travel abroad. Not surprisingly he was one of the university's keenest and most active supporters of its World Health Organisation sponsored link with the medical college at Baroda in India. He well knew that research in biochemistry and genetics mattered greatly to his subject. Research in these topics lay outside his range but he liked to hear about progress in them as they

affected microbiology. He knew that his own contribution would be made elsewhere and he never failed to ask if advances he was told about would mean something to the care of patients.

When he retired from the Edinburgh chair in 1966 he was able to give even more of his time and energy to worldwide epidemiology. The University of the West Indies invited him to set up a new department of social and preventive medicine in Kingston, Jamaica. Here his enthusiastic and highly personal teaching of medical students made a great impression.

With the World Health Organisation he developed ever more and stronger connections and he was always prepared to go anywhere and talk to anyone about ways of upgrading tropical hygiene and medical care. He drew me in to some of these activities, notably in the Cholera Research Laboratory in Dacca in what is now Bangladesh. We had many debates on what would be the most effective strategy. I was all for defined, single, limited, and clearly attainable targets in specific places; but Robert's vision was of something very much wider. Unhappily he died in 1974 after a distressing illness, and our argument was never concluded. He was described—critically, although perhaps justifiably, as "paternalistic," and correctly in the same sentence as "regularly encouraging." I should gladly settle for one word to combine the two sides of him: "fatherly."

Everyday Aids and Appliances

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EQUIPMENT FOR BATHING

Difficulty in bathing may occur with many neurological, orthopaedic, and medical conditions and is a problem for nearly half of all people aged over 75.¹ Bath aids should be considered for all those who would like help, in particular patients with severe arthritis affecting their hips and knees, those who have had strokes, and those with multiple sclerosis or Parkinson's disease.

Factors to consider when recommending a bath aid

Before recommending a bath aid it is essential to check that the patient has good access to the bathroom and is capable of using the aid correctly and safely. Patients must have enough strength in their arms to wash and dry themselves. The medical diagnosis is important as patients may improve or deteriorate, necessitating a regular review of the need for a particular aid.

Provision

General practitioners should refer patients who have difficulty in bathing to occupational therapists, based in social services departments or in hospital. In some districts, however, provision of bath aids can be arranged through district nurses. Assessment is carried out in the patient's own home, and instructions are given on the correct use of the aid supplied. Ideally, the use and usefulness of

a bath aid should be re-evaluated at regular intervals. Bath aids are also obtainable privately and on loan from certain charitable organisations, such as the British Red Cross.

Other considerations

Elderly people living alone who have problems with bathing should always make certain that someone else—for example, a daughter or a home help—is in the house when they take a bath, and they should leave the bathroom door unlocked. Patients with portable alarms should be reminded that the alarm must be removed before they get into the bath.

If bath aids are unlikely to be of help then there are alternatives: these include bathing at home with the help of a district nurse or bath attendant; bathing at a day centre or day hospital; having a strip wash or a shower. Nearly 10% of home visits by district nurses are to help with bathing.²

Mats

The upper side of a bath mat should be textured so that it provides a safe non-slip surface. The surface of the bath should be moistened and the mat pressed down to fix it firmly to the floor of the bath before the water is turned on. Bath mats tend to decay after about two years and should therefore be renewed regularly.

Boards

A bath board is useful for people who have difficulty in getting into a bath. While sitting on the board a person can wash himself

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