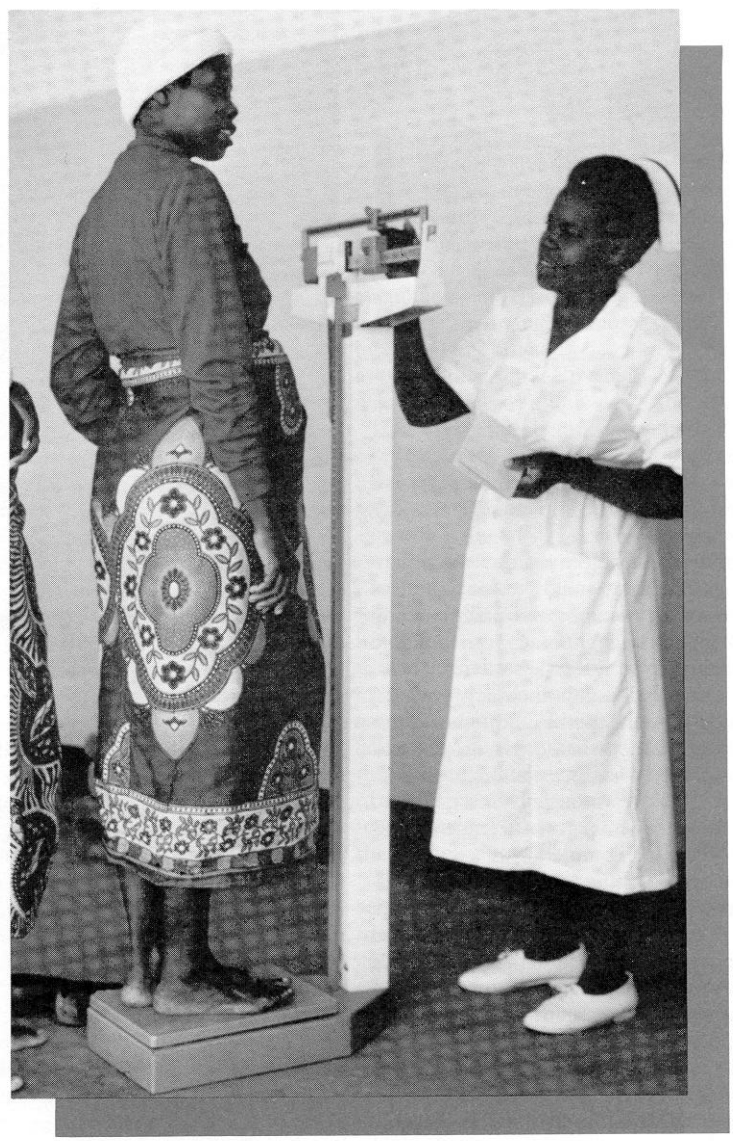
FIGHTING SYPHILIS WITH KNOWLEDGE

Fighting syphilis with penicillin isn't enough. A Zambian research team has shown that educating pregnant women about the need for testing and treatment of the disease can save unborn and newborn children from congenital syphilis, which is often fatal. The problem is a lack of funding and supplies.



A pregnant woman weighs in at a Lusaka clinic where prenatal health is taught. Learning about syphilis is part of the program.

Photo: Rhoda Metcalfe

RHODA METCALFE

Every Tuesday morning a crowd of pregnant women packs the waiting room of Mtendare health clinic on the outskirts of Lusaka, the capital of Zambia. Toddlers squirm restlessly as their mothers wait for the nurses to begin the monthly prenatal health education class. Besides the routine lectures on infant hygiene and nutrition, a new discussion topic has recently entered the talks — the importance of being tested and treated for "kaswende" — the local word for syphilis.

About one in eight expectant mothers in this dimly-lit waiting room — and others like it across Zambia — is likely infected with syphilis. This worrying statistic was discovered during the first phase of an IDRC-supported study completed in 1983 by researchers at Lusaka's University Teaching Hospital (UTH).

A woman infected with syphilis can live for years without noticing any symptoms of the disease, but once passed to her unborn child as congenital syphilis the infection is often deadly. Congenital syphilis is directly responsible for 20 to 30 percent of all miscarriages, stillbirths, and first-week infant deaths in Zambia — altogether 10 or 15 antenatal deaths per 1000 pregnancies.

Infants born with syphilis may suffer from anemia, jaundice, or skin rashes. In severe cases, internal organs such as the liver or spleen are irreparably damaged.

"It causes more ill health and death to (newborn) babies than any other illness in Zambia," says Dr S.K. Hira, the project leader.

For people born in the industrialized West in the past 40 years, it is hard to imagine the impact of syphilis before the discovery of penicillin. Recently trained Western physicians rarely see the chronic neurological, visual, and cardiovascular effects of the third stage of syphilis, and congenital syphilis is equally uncommon. One possible explanation is that the spirochete bacterium that causes the disease has lost some of its virulence in recent decades. Another is that the widespread use of antibiotics for other conditions reduces the severity of any early-stage syphilitic infection even if it doesn't cure it. In any case, in many developing countries this lessening of the impact of syphilis has not yet appeared and the disease and its effects are still a threat.

The testing and treatment of syphilis is well within the technical capability of Zambian health clinic personnel, though in many instances drugs and equipment to complement testing kits are in short supply. UNICEF began supplying the country with syphilis testing kits in 1984. By 1986, 77 percent of expectant women in urban centres and 35 percent in rural areas had access to clinics equipped with the kit and distribution continues to widen. Treatment, a single shot of benzathine pencillin, is also carried out at many clinics when the drug is available.

But the researchers realized that a one-shot-will-do approach to fighting congenital syphilis was not really effective. Zambian women often wait until late in their pregnancy before attending prenatal clinics, by which time an infected fetus may already have suffered irreparable damage.

Traditionally, women do not announce their pregnancy until well into their term because they fear someone may use magic to hurt the growing child while it is small and vulnerable, says Mr J.S. Phiri, a project researcher.

As well as identifying and treating a syphilitic woman early in her pregnancy, it is equally important to bring her sexual partner in for treatment. Otherwise, she is likely to be reinfected with the disease before giving birth.

"We found the patients were often trying to avoid conflicts at home," explains Dr Hira. The wife would get treated but never mention the subject to her husband.

Dr Hira and his assistants launched a second phase of the research project to see whether health education could significantly reduce the ill effects of congenital syphilis in Zambia.

In the first year of the second phase, the researchers observed six health clinics ministering to squatter settlements around Lusaka. The pregnant women attending the clinics were tested and treated for syphilis in the customary manner.

In the second year, a special health education program was introduced in three of the clinics. During group health classes, nurses described the symptoms and effects of congenital syphilis, stressing the importance of early testing and treatment. The women were encouraged to pass the information on to other expectant mothers in their area. Previously, health care workers had considered syphilis too sensitive a subject to broach in a group setting.

"But because they are all women together, they were willing to talk about it quite frankly," says Mrs Tynes Banda, a nurse who participated in the study at Mtendare clinic.

Each expectant mother was given a very thorough examination and tested for syphilis during her first visit to the clinic. The nurses then held one-on-one talks with those women testing positive.

"We asked the wives to bring their husbands in and we would explain (the disease) to them. We didn't want them to be misinformed by their wives," says Mrs Alexandria Mwale, a nurse at Chilenje health clinic.

The husbands were generally very cooperative about coming in for treatment, although there was often a heated discussion as to who was the source of the infection. "We told them to get treated and then they could worry about it," says Mrs Mwale. On the other hand, the boyfriends of the unmarried women were more difficult to drag in, she adds.

After the first year of routine testing and treatment, 51 percent of those women diagnosed earlier with syphilis in three of the clinics under study suffered miscarriages, stillbirths, or preterm deliveries. With the introduction of the health education program the following year, the level fell to 26.5 percent.

"The message out of this project is that health education is possible in Africa," Dr Hira emphasizes.

It is a crucial message for health workers in Africa who rely on Western donors to fund their programs. Most donors feel that money spent on health education is money wasted because the effects are negligible, says Dr Hira.

Zambia, more than many African countries, has developed an infrastructure capable of using health education to combat syphilis. Fifteen medical clinicians are trained annually in STD treatment at the University Teaching Hospital. The trained clinicians are spread among the 35 district hospitals in Zambia. They work specifically with STD cases and are expected to give weekly lectures to maternal and child health workers.

Several of the researchers in the IDRC-sponsored study are also lecturers in the STD clinician course. As a result, the health education techniques used in the syphilis study are already filtering into Zambia's maternal health care system through the recently trained STD clinicians.

Despite the apparent success of the health education program used in the syphilis study, there are severe financial constraints on its widespread use. While the study was being conducted, the three study clinics were well supplied with all the necessary equipment for testing and treating syphilis. Now that the study has been completed, the clinics have returned to dependency on the Zambian Government for medical supplies.

At the Chilenje health clinic, nurses are amply supplied with the basic syphilis testing kits, but they rarely have enough needles, syringes, or test tubes needed to carry out the tests.

"I saw a pregnant woman the other day with signs of syphilis, but unfortunately we couldn't take the blood. We referred her to the (UTH) hospital, but we don't know whether they (such women) go," says Mrs Mwale.

The penicillin for treating the infection is equally scarce at the clinics. In theory, all necessary drugs are free under the Zambian health system, but most of the time nurses give prescriptions for the drugs to women with obvious symptoms and tell them to go out and buy it. But at 30 kwacha (CA$5.40) a shot, it's expensive enough that many couples would avoid treatment or buy a dose for the woman only.

There is hope that the World Health Organization will begin supplying penicillin to Zambia's STD program by the end of 1988, according to Dr Hira. In the meantime, the clinics must get by as they always have — working with what's available.

It is a mark of the effectiveness of the health education program that women at the study centres ask for syphilis testing. "People are complaining because we aren't doing it anymore," says Mrs Mwale.

"It's one of the problems with development studies," comments Mr Phiri. "You come up with the solution, but you can't solve the problem because you don't have the money." ■

Rhoda Metcalfe is a Canadian freelance writer. She visited the University Teaching Hospital's research team and clinics in Lusaka last October.