Where the action is

by John Maurice

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A “grassroots” view of two disease control tools – ivermectin, a new drug for river blindness, and multigrup therapy, a new combination treatment for leprosy – developed with TDR support.

Kouman, Vina Valley, northern Cameroon

The village straddles the road that follows the fast-flowing Vina, a river infested with the blackflies that carry river blindness. It is four in the afternoon. Two white jeeps roll into the central clearing that serves as a village square. Most of the 200 inhabitants are in the fields sowing cotton. A few women, some with calabashes on their heads, watch as the team pulls its mobile clinic from the jeeps: tables, chairs, scales, gas lamps, several battered green metal trunks and a stapler.

French parasitologist Dr Jacques Prod’hon beckons to Noël Sorobai, the village chief, and asks him to form the villagers into two lines in front of the tables, one for females, one for males. The square is beginning to fill up as men return from the fields and shuffle into line. The male line appears almost drab and sullen compared with the female line, which spills over with colour, chatter and laughter. Both lines grow lively, noisy, writhing tails as the children fall into place behind the adults.

Several men, staring blindly in front of them, now and then raising their eyes to the sky, tall and quietly dignified against the babble and chatter of the thronging lines, are led at the end of long white sticks by small boys towards the distribution tables. The other members of the team – three Cameroonian and two young French doctors – are busy pulling pills out of tin foil wrappings.

“We’ve told the village chiefs,” Dr Prod’hon explains, “that we have a new drug that stops the itching and prevents blindness, although it can’t restore sight to someone who is already blind. We tell them that we’ve come to examine everybody and that later we’ll give everybody the medicine.

Anybody who doesn’t take the medicine could give the disease to other people: so everybody must come. We also tell them that we will come back every day for a week after the treatment day to see if anyone has any problems, and we warn them that they might feel a bit unwell after taking ivermectin.”

Ivermectin distribution begins in the fast-fading daylight. The two lines draw together at the far end as the children move to the centre to see the action at the ivermectin tables.

“Mbondro Jean, twenty-eight!” The first man in the line hands over his yellow registration card to Dr Prod’hon and steps on the scales. Forty-six kilos! He is handed his ivermectin and a plastic cup of water.

“No!”

Shrieks of mirth from the female line as a young woman trips over her long orange-white dress as she steps on to the scales. A 14-year-old boy drinks the water without taking the pill; absent-mindedness or stock for his amateur pharmacy? Another puts the ivermectin in his mouth but refuses or is unable to swallow. The plastic cups are a big success, though, brandished as trophies by the young boys as they leave the ivermectin table.

Two boys compare the itching symptoms they have felt of river blindness. One of them declares: “Contaminated food. That’s where the disease comes from.” “No,” says the other. “It’s from drinking contaminated river water. That’s why they call it the river disease.”

From the nearby female line an old woman leaning on a crutch interrupts: “I know why I’m going blind. It’s worms in my eyes, and I know where they come from. Many years ago, before I met my husband, he got a job at the cotton plant in Touboro. Then he married me and we had three children, two boys and a girl. Things were going too well for us – a good job, a good marriage, fine children. Someone in our village here got jealous and put a curse on us. That’s how it all started. First, my husband fell asleep in the gin-roller at the mill and died when they started it up. They said he died of a heart attack but I know better. Then I fell and broke my hip. As a result I’ve got to walk with a crutch ever since. Then these worms came and I can hardly see any more. I don’t know why I’m going blind. It’s worms in my eyes, and I know where they come from.”

Seven o’clock. Night is falling, but if anything the lines are longer. Gas lamps create an altar-like halo around the ivermectin tables. The villagers step up to the tables with their cards, as if making an offering to a beneficent deity, before bending forwards to receive the sacramental drug. By ten o’clock, the lines have dwindled to the last few “supplicants.” The centre of
interest suddenly shifts from ivermectin to the thousands of flying ants now swirling around the gas lights. Women and children rush to eat or catch as many of these airborne peanut-tasting delicacies as they can. Some of the insects are eaten on the spot. Most are slapped into basins or calabashes where they flounder and die in a few inches of water. A free meal, courtesy of the TDR ivermectin project.

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Multidrug therapy for leprosy is a combination of three drugs — dapsone, a drug used for the past 40 years, and two newer drugs, rifampicin and clofazimine. This scheme was devised by WHO in 1981 to replace the traditional treatment with dapsone alone, which had become increasingly ineffective as a result of the spread of resistant strains of the leprosy bacillus. The new drug combination has already released over 800,000 patients from therapy and has brought down the number of registered cases worldwide from over 5 million to 3.8 million in the last five years.

Bonosha Township, southern Shoa, Ethiopia

Saturday is market day in this parched hill town 170 km south-west of Addis Ababa. From dawn, people have been crowding into a vast natural arena between three scrubby hills near the town centre. Some have staked out a few square feet among the cattle, goats, mules, sheep and horses, to set out their wares — scraggy hens, watermelons, chickpeas and piles of red peppers. An occasional red umbrella is carried for shade or social distinction.

Behind one of the hills, sheltered from bustle, but within earshot of the music, five men are gathered under a tree. A sixth “parks” his mule near a hut nearby and walks up to the group, who greet him with loud cries. More people are arriving, including three women. They all seem to know each other, and they all have green cards in their hands and tiny plastic vials, some with a few white pills in them. Nearly all the men wear white robes thrown carelessly but elegantly over their shoulders. They are leprosy patients. They have come for their monthly supply of multidrug therapy pills.

Senior leprosy supervisor Alamo Gabre-Jesus clears his throat and addresses the group under the tree: “For some of you, today is the last day of multidrug therapy. Patients generally do not want this new treatment to stop. They are afraid they will be unwell when they stop. They are afraid the white patches will come back. But although the treatment stops, we will still be here. Health worker Tamru Tadesse will come every two weeks. Do you understand? If you have any problems at all come and see him here.”

He speaks in Amharic, the language of the area around Addis Ababa. His words are translated into the local language and a chorus of “ishii” (right!) from the group of patients.

A man in an intricately patterned blue skull cap raises his hand: “This treatment turns my skin black. I don’t like it at all. And it makes me itch.” He points to his legs. Flies are crawling between the blackish scales, trying to reach into the bleeding cracks in the skin. This is the clofazimine in the treatment, he is told. “When you stop treatment, your legs will return to their normal colour and the dryness and flakiness will eventually disappear.”

Another man, who has been using a horsetail swat to keep flies away, complains: “When I first came here many months ago I was told my patches would disappear with the new treatment. Today is supposed to be my last day of treatment. But I still have many patches. I am not cured. How can I stop treatment?” The lesions will eventually disappear, he is assured.

When finally the jeep leaves the tree clinic, three patients run after it, holding out their stubs of hands in a begging gesture. Multidrug therapy coordinator Zerihun Desta smiles and sighs: “We tell them they don’t need treatment any more. From a control programme standpoint they’re cured. But they show us their deformed hands, the ulcers on their feet, their eyelids that they can’t close — all the things that multidrug therapy can’t do anything about. How can we tell them they’re cured?”

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Srikakulam District, State of Andhra Pradesh, India

Gampadi Tata Rao pedals as fast as he can along the narrow road that snakes through the rice fields towards the village of Vanjangi. His bicycle, a bale of hay heaped over the back mudguard, wobbles as he tries to maintain both balance and speed. He is in a hurry for two reasons. A burrakatha is being held tonight in the village square, with music and actors. The theme is a new treatment for leprosy. All the villagers will be there, including the chief and the elders. And some important people from Hyderabad, the state capital.

Towards the far end of the village, a floodlit stage is surrounded by a sea of faces. Loudspeakers amplify the sounds of a sitar and drums, and

Leprosy patients in an upland township of Ethiopia swallow their multi-drug pills which will eventually cure them.
Where the action is

voices declaiming theatrically. Everything is light and colour: the actors and musicians' clothes, silken gold and pink and white and red and green, and their ornate instruments, and their faces painted bluish-white with rouged lips.

"You have a white patch?"
"Yes, I have a white patch?"
"Where?"
"On my arm."
"What did you do about it?"
"I went to the herbalist."
"What did he say?"
"He said I should go to a leprosy doctor."
"Why did he say that?"

A crescendo of drums and twanging cords. Then silence. The villagers — there must be at least 2000 squatting around the stage — wait, many of them open-mouthed:

"Because he says I have the big disease and he says the leprosy doctor has a new treatment for it."
"A new treatment for leprosy?"
"Yes. He says it's called pulse treatment."

Dr O. Srikrishna, Additional Director of Medical and Health Services (Leprosy) for the State of Andhra Pradesh, leans towards his neighbours in the audience and whispers: "That's what we call multidrug therapy in India. Pulse therapy. A pulse a month. Regular as a heartbeat."

The actors and musicians resume their show, chanting a health education litany:

"Leprosy is not inherited. Leprosy is not a curse of God. Leprosy is not a venereal disease. Early detection and early treatment prevent deformity. Multidrug therapy is a boon to leprosy patients. Leprosy is curable. Leprosy is curable. Leprosy is curable..."

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Guanarito, Portuguesa State, Venezuela

Manuel Cardenas, a tall, wiry 45-year-old cattle herd with a sad expression topped by a hyphen of a moustache, sits on the porch of his wooden slatted hut. His bandaged left foot dangles over one knee. Beside him is his wife. Facing him is National Multidrug Therapy Coordinator Ana Maria Zulueta. All around, a tangle of sugar cane, papaya, orange and lemon trees screens the homestead from the forest savana and the vast plains beyond.

"It started with numbness in my left foot. I was 20 years old. Then pains in my head and fever a lot of the time. After 15 months of treatment, hardly a single white patch — tell-tale sign of leprosy — can be found on this Venezuelan boy.

About five years ago I started having difficulty breathing through my nose — always blocked. Then an ulcer appeared on the sole of my foot, with pus coming from it. And my elbows and knees began to hurt. I found it hard to walk. Couldn't work, of course. I went to a doctor, who said it was sinusitis. Then a specialist, who said it was arthritis. A hundred and fifty bolivares (US $5) each time. Finally I sold our cow for a thousand bolivares to pay for more visits to the doctor and the medicines, aspirin I think. But it only got worse."

Eight months ago, 25 years after his ordeal began, Manuel was spotted by leprosy health worker Alexis Reyes at the Guanarito cattle market. Reyes recognized his swollen earlobes, the nodules on his face, the scaly skin of his legs and his inflamed hands as the signs of advanced leprosy. Manuel was put on multidrug therapy.

"I can't believe it. My pains have disappeared. My fever too. And Senor Reyes cleans out my ulcer regularly. I can walk almost normally again." Dr Zulueta puts a hand on his knee. "Do you realize you'll be cured now? That you won't give the disease to your children or your grandchildren? Do you realize that you won't lose your fingers or your toes? And that you won't go blind?"

Manuel covers his tears with a towel. Amalia, his wife turns away. "It's been so long," she says, shaking her head. Shyly, she allows herself to be led into the sooty, chimneyless kitchen, where Dr Zulueta and Alexis Reyes help her to take off her dress, and then examine her chest and back. Yes, she has the telltale white patches. Dr Zulueta puts an arm around her shoulders: "You don't have to worry, either. Just take these pills. In a year or two, you'll be fine. You'll be cured."

Turning to Alexis Reyes, she adds: "Before multidrug therapy, I couldn't have told her that."