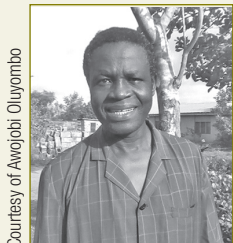


Rising to the challenge of rural surgery

Nigeria, along with many other countries, faces the challenge of providing quality surgical care in rural areas. Dr Awojobi Oluoyombo talks to Les Olson about his innovative approach to working as a rural surgeon in south-western Nigeria.



Courtesy of Awojobi Oluoyombo
Dr Awojobi Oluoyombo

Dr Awojobi Oluoyombo obtained his medical degree from the University College Hospital in Ibadan, Nigeria, in 1975 where he earned the Adeola Odutola prize for the best final-year medical student. He worked as a surgeon at the District Hospital Eruwa for three years before setting up his own rural clinic in Eruwa in 1986.

Other awards he has received include the Oyo State Merit Award for rural medical practice, the National Agency for Science and Engineering Infrastructure Prize and the

College of Medicine Award from the University of Ibadan for his contribution to the Ibarapa Community Health Project. In 2000, the King of Eruwa offered him the chieftaincy title of Baasegun of Eruwa.

Q: What are the biggest problems that rural doctors face in your country?

A: The travails of rural surgery in Nigeria include: the training and appointment of rural surgeons; the administrative milieu of the public service; inadequate infrastructure in rural hospitals; the peculiar clinical dilemmas that are confronted 24 hours of the day; lack of financial resources as well as the social issues of living in a rural setting. However, there are many pragmatic solutions to these travails as the adage “necessity is the mother of invention” comes into play all the way.

Q: How many people does your clinic serve?

A: My clinic is in Eruwa, a rural area about 60 km from Ibadan in south-western Nigeria. It is difficult to obtain accurate population figures in my country, but we serve about 200 000 people in our 52-bed clinic. It was built between 1988 and 1990, mainly from fees paid by patients and donations in cash and in kind on land provided by the community. A building that would have cost 150 million naira (approximately one million United States dollars) cost N15 000 (US\$ 100) to construct. I have been described as the clinic’s “architect, builder, surgeon, doctor, maintenance man, proprietor and chief dreamer”. I am a rural surgeon by training; inventing and fabricating machines is my hobby.

Q: Can you describe some of your technical innovations?

A: Our operating table is made of 90% wood and 10% metal. It has been covered

with formica to provide a smooth surface and to allow washing down. It is raised and lowered by a hydraulic jack from a motorcar. This table costs less than 10% as much as the imported brand made of cast iron, but it is sturdy and has all the basic tilts required by the surgeon.

Another example is the haematocrit centrifuge, used to determine the level of oxygen-carrying red cells in patients’ blood: this is made from the rear wheel of a bicycle, which revolves at 5400 rpm, creating a force 3000 times the force of gravity, which is enough to pack the red cells in five minutes.

“I felt that I had an obligation to serve the rural populace and give back to them what I had received during my training.”

Then, there are simple adaptations: we cannot get plasticine, which is normally used for sealing tubes containing blood, but we find that cheap and readily available candle wax is just as effective. Another major problem in health-care delivery in rural areas is transportation. Poor and expensive transportation systems deter patients from seeking medical help in time. We have contrived a tricycle from

a conventional motorcycle and adapted it for a village ambulance.

Q: You seem to enjoy finding simple, cheap solutions to problems that most people see as complex. Is that so?

A: Yes. Examples abound in medical history of cheap solutions to major health problems of mankind: vaccination for smallpox, oral rehydration therapy, childhood immunization against several diseases, the growth chart in infant welfare clinics. In solving a problem, the moment my proposed solution becomes more complex, I realize I have “missed the road” [a reference to the Nigerian musician Fela Kuti] and I go “back to basics”.

Q: Your ability to provide local engineering solutions to technical problems is only part of the story of your clinic. Do you see your ability to involve the local community in supporting the clinic as one of your innovations?

A: Community participation is crucial to the sustainability of rural medical practice. The community benefits not only from the availability of affordable health care at their doorstep but also from the job opportunities provided in the clinic and the infrastructure (transportation, catering and so on) that supports it.

Q: How do family members become involved in the care of their relatives?

A: The first thing I learnt on arriving in Eruwa was that I was going to have to manage patients and their relatives. This is a critical component of rural surgical practice. Relatives stay with patients 24 hours of the day. They offer useful nursing care and act as continuous monitors of a patient’s wellbeing. Some can be mischievous though – administering native drugs to the patient or taking other tablets brought from home. This practice is fortunately infrequent, as I engage in health education most of the time. We usually get maximum cooperation if we explain what is involved in the management of the patient, especially in surgical cases. During surgery, the patient’s relatives are encouraged to come into the operating room and watch. Those who cannot stand the sight of blood are excused.

A colleague in a neighbouring hospital once took my haematocrit centrifuge to the laboratory and the technologist refused to use it because it was manual. Rather than fold his arms, my colleague took it to his consulting room and encouraged the relatives of the patient to operate the machine while he took the reading after five minutes of revolution! He had got the community involved in the care of their sick while the technologist kept collecting his salary doing nothing.

Q: This participatory approach extends to the way you manage the clinic's finances. How do you make the clinic affordable?

A: Finance has always been the bone of contention in any practice, particularly in a rural area where the populace is relatively poor. For a practice to be successful, the services provided must not only be accessible and acceptable but also affordable. The use of appropriate low-cost, but effective, technology significantly reduced our capital investment.

Q: How are salaries worked out?

A: In our clinic, there is no employer or employee. We owe allegiance to our patients who receive the best we can offer and, in return, they pay us what they can afford. Ours is a cooperative of professionals and non-professionals offering service in the health sector. Everybody is placed on a salary agreed by all. Every month a meeting of all workers is convened during which the financial returns of the month are tendered and decisions taken on payment of salaries and what to do with profit or loss. In this way, a sense of belonging is generated in all workers and there is no labour unrest, as everyone knows the financial standing of the practice.

Q: Unlike many of your compatriots, you made a decision not to leave Nigeria for training or work. Why was that?

A: My choice was based on the belief that one year abroad at an early stage of my surgical training could be disorientating and counterproductive to solving the medical problems in Nigeria. I also had implicit confidence that my teachers were world-renowned and could train their kind solely in Nigeria. Open-heart surgery was a common operation at Ibadan and Enugu during that period and there was no need to travel abroad for training in most of the surgical disciplines.

“Rotations through rural health institutions should be made compulsory during postgraduate training.”

I spent six years in training instead of five. Because I did not avail myself of the optional opportunity of travelling abroad for one year, I was failed twice in 1982 in the final examinations to become a rural surgeon!

I began my medical training as the civil war that affected Nigeria from 1967 to 1970 was ending. I felt that I had an obligation to serve the rural populace and give back to them what I had received during my training.

I have always looked forward to a time when I could say that my achievements are home-grown with no foreign

influence whatsoever. Although I had several opportunities to travel abroad for undergraduate and postgraduate training, I journeyed out of Nigeria for the first time in 1995 – 20 years after becoming a medical officer and 12 years after starting work as a rural surgeon.

Q: What can countries do to encourage their health workers to work in rural areas?

A: The logjam of retaining medical officers in rural Nigeria could be solved formally using established governmental institutions and informally through private sector initiatives. First, rural health institutions should be made functional using the appropriate technology (as we have developed ourselves in our clinic). Family physicians in tertiary health-care institutions should be deployed to the secondary level of health care where they truly belong. Their academic aspirations can still be realized in such settings where the health institutions are affiliated with and supported by the universities. Rotations through rural health institutions should be made compulsory during postgraduate training as it is with undergraduate training but the trainers should also be resident in the institutions.

One problem has been the difference in gross earnings between rural and urban professionals. However, the difference in the cost of living, which is in favour of the rural practitioners, probably neutralizes this. Another problem has been the lack of job opportunities for spouses of health workers. ■

Recent news from WHO

- On World TB Day on 24 March, British R&B singer and songwriter Craig David was announced as **Goodwill Ambassador against Tuberculosis** for the Stop TB Partnership. In 2008, around 9 million people became ill with and 1.8 million people died from tuberculosis. Craig has a massive and loyal following in many African and Asian countries that are heavily affected by the disease.
- WHO celebrated **World Health Day** on 7 April with its “1000 cities – 1000 lives” campaign which highlights the impact of urban living on health and encourages efforts to make cities healthier places for people to live. “In general, urban populations are better off than their rural counterparts,” says Dr Margaret Chan, WHO Director-General. “They tend to have greater access to social and health services and their life expectancy is longer. But cities can also concentrate threats to health such as inadequate sanitation and refuse collection, pollution, road traffic accidents, outbreaks of infectious diseases and also unhealthy lifestyles.”
- On 9 April in Manila, WHO pledged its support to the United Nations’ **One Million Safe Schools and Hospitals Campaign**. “This campaign is unique because it offers people from all walks of life the opportunity to protect their hospitals and schools and, in turn, save lives,” says Dr Eric Laroche, WHO Assistant Director-General for Health Action in Crises. “Members of the public, governments, health workers and hospital staff can all find a way to actively support this initiative to make one million hospitals and schools safe from disasters.”

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