The return of yaws


WHO
Dr Kingsley Asiedu

Dr Kingsley Asiedu received his MD from the University of Science and Technology Kumasi, Ghana in 1990. After completing his rotations at the Komfo Anokye Teaching Hospital in Kumasi, he started his career in public health in 1993 in the remote rural district of Amansie West, one of the country's most deprived areas. From 1996 to 1997, he earned his public health degree with a focus on health policy and management at the Rollins School of Public Health, Emory University, Atlanta, United States of America. He joined WHO in 1998 as a medical officer responsible for Buruli ulcer. He is currently responsible for two neglected tropical diseases – Buruli ulcer and yaws – in the Department of Control of Neglected Tropical Diseases.

The World Health Organization (WHO) launched the Global Yaws Programme with the United Nations Children's Fund (UNICEF) in 1952. It treated 300 million people in 50 countries and reduced global levels of the disease by more than 95% by the end of 1964. The problem was nearly solved, but there were resurgences particularly in the 1970s and recently in 2006. Kingsley Asiedu talks about what went wrong in the past and how to make sustainable gains in the control of this little-known disease today.

Q: Many people today have never heard of yaws. Why are you and other experts revising old treatment guidelines for yaws?

A. Today, many people living in the tropics only hear about this disease from their grandparents. Past generations remember the miracle cure – just one injection and the patient is cured. Many people have forgotten the disease and many experts who worked on WHO's Global Yaws Programme in the 1950s and 1960s have died or are too old now. The new generation of nurses and doctors haven't seen the disease, because it's in remote areas where health service coverage is very low. We are revising a handbook published by WHO in 1984 to help the new generation of health workers.

Q: Is this why you convened a group of people most of whom are retired to update the manual?

A: Even at WHO, the expertise left in 1990. In countries, yaws programmes were dismantled in the 1970s and early 1980s, so there are hardly any experts on yaws left. We convened experts from India and Togo, as well as an expert who ran the last WHO yaws programme in the 1980s.

Q: What is yaws?

A: Yaws is a skin disease caused by a bacterium called *Treponema pallidum* subspecies *pertenue*. It often starts as a single lesion of swelling on the skin, but without treatment it leads to multiple lesions all over the body. It causes pain but doesn't kill patients, so little is heard about this disease. In the late stages, which are rare these days, it can lead to disabilities and disfigurement in 10% of untreated cases. The most prominent of these complications is the destruction of the nose.

Q: Which parts of the world are affected by yaws?

A: Sixty years ago the problem was in all tropical regions including northern Australia. Africa was the most affected area based on the most recent WHO estimates from the 1990s and we are yet to know the true scale of the problem there today. India reported its last cases in 2003, while Indonesia and Timor Leste still have some cases. Papua New Guinea and two other Pacific island countries, Solomon Islands and Vanuatu have reported cases and there are some pockets in the Amazon region.

Q: How easy is yaws to diagnose and treat?

A: It is easy for those who have worked with the disease to diagnose it and for others to learn how to diagnose it based on the clinico-epidemiological features. Treatment is simple, just one injection of benzathine penicillin, which is one of the cheapest antibiotics you can get today. Unlike treating other diseases, there is no need to follow up on the patient once treated, as one injection is enough to cure him or her.

Q: How does yaws affect peoples' lives?

A: It can be crippling and debilitating, though this extreme form has become rare today because people sooner or later get an injection of penicillin. Children who have the disease look miserable, they have a fever and pain in their joints. When I worked in Ghana in Amansie West district in the 1990s, we did not see the crippling effects as people were getting the injections. We did not take the campaign approach and did not go into the community to look for more cases. Our goal was not elimination but control. We were doing our best for the patients. But this approach is not the one that is needed in future to eliminate the disease globally.

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Q: From the 1950s to 1970s, WHO and UNICEF managed to control yaws in 46 countries. It made a comeback in the 1970s. Again control efforts were successful in the 1980s and 1990s, then it re-emerged. Why can't WHO and other international organizations be more consistent in the assistance they provide to achieve sustainable health gains?

A: This is a difficult question. You are right. In 1978 the World Health Assembly resolution on yaws alerted the world to the return of this disease

and there were renewed control efforts in the early 1980s up to 1985 in response to that. Then came HIV and other global priorities. I am sure that if yaws had been dealt with properly, we would not have this as a health problem anymore. Political and donor will is needed. If countries commit to ridding themselves of the disease, they may get international backing and help. It's a mixture of reasons why we haven't achieved sustainable health gains in yaws control, but let us hope that this time we will get it right.

Q: Is it necessary to eradicate yaws and how long would that take?

A: Yaws is amenable to eradication, like polio and guinea worm. It should be eradicated because, if left undetected, it leads to severe disfigurement and disability and it can spread. In India, yaws has been eliminated. Compared to 60 years ago, it's a small health problem globally. There are very few pockets of yaws today, not at national level but in the communities, where it's a major problem. We say that "where the road ends, yaws begins". It affects marginalized or isolated communities. In India, it has been tribal populations. In Africa, for example, the pygmies in central Africa are heavily infected. To do something for these poor people for whom there is no access to health services, the motive is purely humanitarian. We want to secure political commitment so that this disease can be written into the history books of public health. We are not looking for large amounts of money compared to the huge resources going into other health programmes. There have been two main efforts to eliminate yaws, in the 1950s and 1960s, and in the 1970s. The disease was not eliminated, but the programme got eliminated. The responsibility for eradication lies with countries. The role of WHO is to advocate from the global level, and give renewed guidance on the control and capacity building, and give support.

Q: How will WHO get the necessary global coordination to do this? Will it launch an eradication campaign?

A: We don't expect to go to that scale, we believe we need some modest resources to support countries and countries already have some resources of their own. If we are really determined to eliminate this disease it would require some dedicated resources. When there are only a few last cases, the disease is not considered a priority any more. Therefore, going after the last cases is always a bigger challenge because you need an enormous amount of resources and continuous commitment of partners.

Q: What are the lessons learned from the yaws experience, in terms of the control of the disease for many years and its re-emergence?

A: Success can lead to neglect; it is a vicious-circle of success and neglect. It was a great public health achievement of the past, but that success lead to the neglect and problem we face today of trying to revive control efforts. If some diseases are set for elimination or eradication within a specific timeframe, every effort should be made to get that goal accomplished in time before other health problems take over. Finally, the re-emergence of yaws gives all of us another lesson about infectious diseases that are transmitted from human to human. No one is safe until everyone is safe. Just dealing with a specific geographic area without being sure your neighbours are free will lead to the disease transferring from endemic to non-endemic places. ■