

Medical and veterinary doctors, social scientists and agricultural researchers meet to carry forward the fight against cysticercosis, a neglected and fatal disease of the poor

The fifth general assembly meeting on cysticercosis/taeniosis was held at the Faculty of Medicine, Eduardo Mondlane University, in Maputo, Mozambique, from 11–13 October 2007. The meeting was organised by the Cysticercosis Working Group in Eastern and Southern Africa (CWGESA) in cooperation with the Medical and Veterinary Faculties of Eduardo Mondlane University in Mozambique and the WHO/FAO Collaborating Centre for Parasitic Zoonoses in Denmark with support from DBL – Centre for Health Research and Development, Denmark, and the Global Alliance for Livestock Veterinary Medicines (GALVmed) based in Edinburgh, Scotland. Local support in Maputo was provided by Nestlé, Medis Farmaceutica, Mcel and the Golden Travel Agency. CWGESA was established in 2002 to promote communication, collaboration and coordination of integrated research and control activities to combat cysticercosis, a serious and sometimes fatal disease transmitted between pigs and people by the zoonotic tapeworm *Taenia solium*. The fifth CWGESA General Assembly provided a forum to reflect on the progress of implementing the Regional Action Plan for Combating Cysticercosis in Eastern and Southern Africa that was formulated during the International Action Planning Workshop on *Taenia solium* Cysticercosis/Taeniosis held in Arusha, Tanzania, five years ago.

Poverty and ignorance are the main reasons why cysticercosis is an emerging zoonosis in eastern and southern Africa. The last decade has witnessed a marked increase in pig-keeping and pork consumption in this region, particularly among rural and peri-urban smallholder farmers who can improve household income by selling pigs to the rapidly expanding urban markets. Pigs have an exceptional ability to produce high-quality protein from low-quality feed and reproduce remarkably rapidly on little land. However, poor pig husbandry practices combined with inadequate sanitation,

lack of meat inspection, and poor human and animal disease control have led to an increase in the incidence of cysticercosis. Figures presented by researchers in both the veterinary and medical fields at the meeting painted an alarming picture of the level of infection in humans and pigs, underlining the fact that this disease is a serious public health risk not only to the people in rural pig-raising communities but also to those in urban areas who consume pork or come in contact with human tapeworm carriers. It also poses an economic constraint to poor pig producers, who are excluded from attaining good prices for their animals that cannot pass meat inspection. Cyst-infested meat that is condemned at point of slaughter is wasted in terms of providing a source of nutrition.

The fifth General Assembly meeting of the CWGESA was attended by more than 40 people from 18 countries: Angola, Burundi, Democratic Republic of Congo, Kenya, Mozambique, Tanzania, South Africa, Uganda, Zambia and Zimbabwe in the ESA region, as well as Australia, Austria, Belgium, Burkina Faso, Denmark, France, UK and USA. In the interests of improving human health and economic development, CWGESA aims to improve prevention and control of this human and pig disease through increased awareness, better surveillance, and more support for upgrading pig production to increase domestic food supply and export opportunities for pork as well as facilitating investigation of the likely link between the high prevalence of epilepsy in the region and neurocysticercosis. Participants provided updates on the status of porcine and human cysticercosis in the 10 endemic eastern and southern African countries represented at the meeting as well as in Madagascar and Burkina Faso, including current and planned research and control efforts, on the Global Campaign for Combating *T. solium* cysticercosis, and on the latest developments in

diagnostic tests and vaccines and strategies for their delivery. Opportunities for linking cysticercosis research and control initiatives with initiatives relating to schistosomiasis and other neglected tropical diseases, African swine fever and pig production and marketing were explored. In addition, the meeting included a workshop on risk analysis to highlight a risk-based approach to cysticercosis/taeniosis control. Implementation of the Regional Action Plan for Combating Cysticercosis in Eastern and Southern Africa formulated in Arusha in 2002 was discussed and the plan was updated to include, among other things, a focus on pig production and marketing. Participants were informed that a CWGESA website is now available (www.cwgesa.org). It was concluded that cysticercosis remains a neglected zoonosis in eastern, southern and other parts of Africa and that relentless efforts will be required to alter that situation.

Background information

Taenia solium is a parasite transmitted between humans and pigs. This zoonotic disease forms larval cysts in humans and pigs that can lead to epilepsy and death in humans, reduces the market value of pigs and makes pork unsafe to eat. In humans the cysts often develop in the brain, causing a condition called neurocysticercosis, which can cause severe headaches, epileptic seizures and sometimes death. Neurocysticercosis is considered to be the most common preventable cause of epilepsy in the developing world, rendering people incapacitated and unproductive, and sometimes leading to fatal accidents as a result of seizures. Although theoretically easy to control and declared eradicable, cysticercosis remains neglected in most endemic countries due to lack of information and awareness about the extent of the problem, suitable diagnostic and management capacity, and appropriate prevention and control strategies.

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