NEGLIGENCE DISEASES

Progress and challenges in controlling neglected zoonotic diseases

Suzanne Jarvis reports from the Fourth International Meeting on the Control of Neglected Zoonotic Diseases, hosted by the World Health Organization in Geneva in November. The meeting looked at progress that has been made in controlling these diseases and at what the next steps should be for further control.

While progress has been made on controlling ‘neglected’ zoonotic diseases, if further inroads are to be made there is a need for greater political commitment, sustainable One Health collaborations and the participation of communities in control programmes. This was among the conclusions reached at the meeting, which took the theme ‘From advocacy to action’.

Dirk Engels, of the World Health Organization (WHO), explained the context of neglected zoonotic diseases within the framework for neglected tropical diseases that had been identified by the WHO. In May 2013, the World Health Assembly had adopted a WHO resolution and roadmap to accelerate work to control 17 identified neglected tropical diseases (www.who.int/neglected_diseases/WHA_66_seventh_day_resolution_adopted/en/); of these, seven were zoonotic diseases, including rabies, cysticercosis, echinococcosis, foodborne trematode infections and leishmaniasis. Good progress had been made with four of these diseases, said Dr Engels, so it was time for a rethink on the three others, namely rabies, cysticercosis and echinococcosis.

The WHO, together with the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE), would now focus on controlling these three diseases. The countries that would benefit from action, and the point where disease transmission could be interrupted, had been identified and, said Dr Engels, the ‘time is right to take action’.

He acknowledged that there were other neglected zoonotic diseases that were not included in the roadmap, such as anthrax, bovine TB, brucellosis and leptospirosis. Where possible, the WHO would support efforts to control these and did not want to exclude them, but Dr Engels acknowledged that resources were limited and there was a ‘danger of being spread out too thinly’.

Katinka de Balogh, of the FAO but speaking on behalf of the WHO, OIE and FAO, described how the drivers for the diseases being considered were often the same: bad sanitation, poverty and deficient health systems. She agreed that there were often competing priorities. The three organisations were collaborating to develop practical tools that would help countries prevent and control these zoonotic diseases, with the aim of improving lives and livelihoods. Also they would be working together to link surveillance of human and animal disease, as in many countries the level of the problem was not known.
Dr de Balogh suggested ways that this international support could be translated into action at the national level; these included encouraging a One Health approach across medical and veterinary resources, strengthening the health care and disease surveillance systems, and translating science into policy.

One Health
Throughout the meeting, the need for a One Health approach to the control and prevention of these neglected zoonoses was emphasised.

Paul Gibbs, of the University of Florida, who introduced a session on whether One Health initiatives could be established in countries that needed to control these diseases, gave some context to the area. He said that the One Health concept had been ‘born of and fuelled by fear’ to a number of emerging zoonotic diseases. It had since grown and become an ‘exciting but confusing arena’ due to its breadth. However, in the context of the neglected zoonotic diseases, he believed that efforts should be directed towards effective control.

How that control was done would vary between diseases, but it would essentially be about breaking the disease transmission chain. He pointed out that it was worth remembering that emerging zoonotic diseases were often hosted by wildlife species, while, for neglected zoonotic diseases, the hosts were more likely to be domestic species.

Presentations were given on programmes making significant progress in the control of the diseases, and the challenges of control, both at the national and local level, were also highlighted.

For example, Be-Nazir Ahmed, of the Ministry of Health and Family Welfare in Bangladesh, discussed rabies control in his country. He said that efforts to control the disease had been neglected, but were now high on the agenda and real improvements had been made. Four strategies were being employed: advocacy/communication within the community; dog bite management; dog vaccination; and dog population management. It was, he said, a good example of One Health in action. Already an impact had been seen, with human cases falling from 2100 cases per year in 2010 to 1400 cases in 2013, with some districts being completely free of cases. He thought it would be feasible to eliminate human cases of rabies caused by dogs in Bangladesh by 2025. The aim set by the WHO/OIE/FAO is to eliminate rabies caused by dogs worldwide by 2030.

Charles Waiswa, from Control of Trypanosomiasis in Uganda (COCUT), described how sharing resources and working together with medical, veterinary and agriculture colleagues had brought about a reduction in cases of trypanosomiasis. Early warning systems had been developed by investing in and improving infrastructure and disease surveillance, and by bringing more people in at every level. ‘Catalytic centres’ had been developed which were a focus for community empowerment. A strategic plan for 2015-2030 was now agreed, with the aim to make further progress.

Examples were also given from other rabies control projects, and from programmes to control leishmaniasis, echinococcosis and cysticercosis.

In discussions of how further progress could be made, Kate Medlicott, of the WHO’s Water Sanitation Hygiene and Health team, highlighted the environmental element of One Health. Many diseases, she said, could be prevented by providing a good water supply and sanitation.

Armando Gonzalez, of the National University of San Marcos, Peru, suggested highlighting the benefit to farmers of taking part in disease control programmes. For example, in Peru, farmers could see that pigs enrolled on a programme to prevent cysticercosis had a better weight gain and so the farmers were happy to be involved. However, the cost to the farmer had to be low or zero, he said.

Information and advocacy material
A number of initiatives were launched or promoted at the meeting. These included the launch of a Pan-African One Health neglected zoonotic diseases platform (www.advanz.org/pan-african-one-health-platform); material on how connections between people and their animals might affect their health and livelihood (http://oh-advocacy.avia-gis.com); and an updated version of the Vicious Worm, an information tool on Taenia solium cysticercosis/taeniosis (www.thewiciousworm.org).

More information at www.advanz.org and www.iconzafrica.org

Zoonoses not on the WHO’s neglected tropical diseases list were also discussed, namely brucellosis, bovine TB and anthrax. Rudovicz Kazwala, of the Sokoine University of Agriculture in Tanzania, noted that these disease were ‘neglected but not neglectable’.

The likely human burden of brucellosis was considered, and attempts to control the disease in Mongolia were described. Halah Kutaish, a doctor in private practice in Switzerland, highlighted how conflict and war could affect the spread of disease. In Syria, there were historical data on the incidence of brucellosis in people. It was now difficult to collect data, but there was currently a study looking at whether the disease had spread with refugees and if the incidence had gone up in Syria itself. However, as she pointed out, the Syrian health services were currently very stretched, with trauma being a major burden (625,000 cases since the beginning of the conflict), so brucellosis was becoming even more neglected.

Funding for programmes and projects for all the diseases mentioned was also considered, and it was pointed out that funding could be extremely skewed even within the neglected zoonotic diseases. The meeting heard about development impact bonds, EU funding opportunities and the recently established Zoonoses and Emerging Livestock Systems programme (VR, November 22, 2014, vol 175, p 498).

A number of points were made about finding financing for these diseases. These included generating a better quantification of the economic benefits of disease control; a requirement for greater funding innovation; and the need for a paradigm shift in thinking, from financing ‘inputs’ to financing ‘outcomes’ (results).

The WHO will continue to report progress and follow-up on actions recommended during the meeting through its Strategic and Technical Advisory Group for Neglected Tropical Diseases.

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