Zoonoses Fact Sheet - *Giardia*

Gastrointestinal diseases are a major problem in young children in Indigenous communities. In Western Australia, hospitalisation for gastroenteritis was 7 times higher in Aboriginal children than Non-Aboriginal children (Gracey and Cullinane 2003). Diarrheal episodes were associated with the presence of potential zoonotic pathogens such as *Giardia* spp. (Gunzburg et al 1992, Meloni *et al* 1993).

What is *Giardia*?

Where does it live?

Giardia is a protozoa that can cause stomach upsets and diarrhea

Giardia has two forms in its life: a **cyst** form and an **adult** form. It begins life wrapped up in a cyst, a bit like a tiny egg. This cyst stage lets the *Giardia* live for a longer time in the environment. The cyst can live much longer in a **wet environment** than a dry one. The adult hatches from the cyst and **lives in the gut**.

What are Protozoa?

Protozoa are a family of organisms larger than bacteria, but are still microscopic. They need to get inside another animal before they can breed up. Protozoa that can cause gut diseases include *Giardia, Cryptosporidium* and *Isospora*.

There are many different types of *Giardia*, some belonging to wildlife, some to livestock, and some to humans. *Giardia duodenalis is* also called *Giardia lamblia* and *Giardia intestinalis* – these are all the same germ.

How does *Giardia* make people sick?

- *Giardia* can be in the gut of people or dogs and not make them sick. If a person or dog has a weak immune system *Giardia* can make them very sick.
- Young *Giardia* breed up inside the gut of people and animals.
- *Giardia* can cause **diarrhoea** and stomach upsets (gutsache).
- Antibiotics don't work well on them. This makes *Giardia* a difficult to disease to treat. That's why preventing it is important.

Where do we find it?

- ***Giardia* is most common where human or animal faeces can get into the water.**
- Dogs that drink from surface water or that eat nappies (kimbes). or rubbish can get infected, pass cysts in their faces, and continue the cycle of disease.
- Dogs lying outside can get *Giardia* cysts on their coats, which can then get onto people's hands when they touch dogs.

What EHP and community can do to prevent the spread of Guardia

- Fix dripping taps, boggy areas in yards, drainage, and rubbish collection.
- Raise awareness of the risks of inadequate hygiene (understanding of importance of germ theory, hand washing, house cleaning, removal of dog faeces from yards.
- Provide and fill drinking containers for dogs so they have a clean water source
- Improve general dog health: sick animals always have more germs in their faeces
- Reduce dog breeding: younger dogs produce more germs in their faeces

Source: ***Professor Richard Speare, Human Doctor and Veterinarian, James Cook University, Zoonoses training at QLD Health/AMRRIC Workshops, Yarrabah, 2008***

Dr Samantha Phelan, Dog Health Programs in Indigenous communities, an Environmental Health Practitioner's Guide, AMRRIC, 2010

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