LEPTOSPIROSIS IN DOGS
Leptospirosis in dogs

• Common features include fever, anorexia, depression, liver disease, jaundice, and kidney failure.

• Presentation may mimic many other diseases.

• Difficulty with diagnostic tests.

• Underdiagnosed.

• These dogs may be asymptomatic, yet be a source of infection for humans and other animals.
Antibodies to Copenhageni, Pomona, Hardjo and Ballum have been identified in New Zealand dogs.

Infections of dogs with Copenhageni reported more commonly in the North Island.

Practitioner reports attributing disease to Pomona.

Copenhageni is maintained in the rodent population (urban and rural dogs potentially at risk).

Licensed vaccines for dogs in New Zealand provide protection against Copenhageni only.
• No recent studies on urinary shedding of leptospires by dogs in NZ.

• Information is needed on the association between exposure in NZ dogs with that of livestock.
2005 survey

- 606 North Island dogs, 49 South Island dogs.
- 10% of dogs tested had antibodies to Copenhageni.
- 3.5% had significant concentrations of antibodies to Hardjo, including working breeds.
- Evidence of exposure in South Island dogs.
- Further information required.
South Island study

• Preliminary results.

• 117 dogs from 28 farms.

• Antibodies generally low or negative.

• Some evidence of exposure to Hardjo in 29 dogs.

• 16% of dogs had leptospiral DNA in their urine (PCR).

• Positive urine PCR can occur with negative antibody tests.

• Culture/serovar identification not yet performed.
Vaccination Trial

• Current dog vaccine provides protection against Copenhageni only.

• Investigation of response to a non-licensed (off label) three way livestock vaccine in dogs.

• Evidence that the vaccines raise antibody concentrations to Hardjo and Pomona, and to a lesser degree, Copenhageni.

• Increased antibody levels doesn’t guarantee protection.

• Adjuvanted livestock vaccines may cause side effects.

• Administration only after veterinary consultation.
- Voluntary Vet Student externships.

- Spay/neuter clinics, medical supplies, welfare, education.

- Lepto is a significant cause of human non-malarial fever in tropical climates.

- Little is known about Lepto in Samoa

- Proposed project to investigate the prevalence of Lepto exposure in dogs.

- Collaboration with other researchers to assess impact on human health and livestock.
Thank you!