

## 6. Disease Ecology and Strategies for Disease Control

6.1. The candidate will have **sound knowledge** of disease ecology and strategies for disease control.

6.2. The candidate will be able to do the following with **sound expertise**:

6.2.1. in relation to the occurrence of infectious disease, explain and provide examples of the following concepts:

6.2.1.1. transmission and maintenance of infection in a population of interest

6.2.1.2. methods of spread of disease

6.2.1.3. basic epidemic theory

6.2.1.4. basic reproduction rate ( $R_0$ ) for infectious diseases

6.2.1.5. herd immunity.

6.2.2. list major strategies used for infectious disease control, and explain how these affect disease frequency in the context of the concepts above.

6.2.3. identify and elucidate the epidemiological features critical to control and prevention of infectious and non-infectious diseases important in Australia or New Zealand selected by the candidate.