Group on Transmission: Patterns and Dynamics of Infectious Diseases

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Transmission: Patterns and Dynamics of Infectious Diseases
Group Report

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INTRODUCTION
Parasitic organisms exhibit a great diversity of mechanisms to promote transmission between hosts. Many medical and biological texts stress these differences between species, focusing on the unusual as opposed to the most commonly adopted transmission pathways. This report attempts to identify certain general principles and patterns in the way different parasitic organisms are transmitted among hosts. The objective is to seek to identify how various categories of transmission mechanisms determine observed patterns of parasite population behavior within host communities. Attention is centered on infectious agents of medical and veterinary importance, although the principles involved are relevant to all parasitic organisms. The report is divided into four sections: a) classification of transmission processes, b) the influence of host-parasite interaction on transmission dynamics, c) heterogeneity, and d) measurement of parameters of infection and disease in populations.