“Herd Immunity”: A Rough Guide

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Abstract

The term “herd immunity” is widely used but carries a variety of meanings [1–7]. Some authors use it to describe the proportion immune among individuals in a population. Others use it with reference to a particular threshold proportion of immune individuals that should lead to a decline in incidence of infection. Still others use it to refer to a pattern of immunity that should protect a population from invasion of a new infection. A common implication of the term is that the risk of infection among susceptible individuals in a population is reduced by the presence and proximity of immune individuals (this is sometimes referred to as “indirect protection” or a “herd effect”). We provide brief historical, epidemiologic, theoretical, and pragmatic public health perspectives on this concept.

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