

Immunisation

Biology

How population immunity works, and the thresholds involved.

Herd immunity threshold rises with R_0 .

Disease	R_0	Threshold
Measles	12–18	~92–95%
Pertussis	12–17	~92–94%
Diphtheria	6–7	~85%
Polio	5–7	~80–86%
Influenza	1–2	~30–50%

Threshold $\approx 1 - 1/R_0$. Measles is so contagious that even small drops in coverage cause outbreaks.