

# Content

1. Introduction	1
2 The definition of epidemics and regressions	6
3 Dangers to health in transition	17
4 The characteristics of epidemics and regressions	36
4.1 Epidemiologic potentials and their dynamics	36
4.2 Diagnostic and therapeutic intervals	40
4.3 Epidemiologic penetration	41
4.4 The intensity of exposures	43
4.5 The duration of epidemiologic cases	44
4.6 The time interval of the risk to infect others	45
4.7 The time interval at risk	46
4.8 The mechanisms of the penetration of exposures.	47
5 Quantification of epidemics and regressions	49
5.1 Epidemics and regressions in communicable diseases	50
5.2 Epidemics and regressions due to non-communicable diseases	52
5.3 The dynamics of epidemiologic cases	54
5.3.1 Measuring the changing incidence of disease	55
5.3.2 The epidemiologic case	58
5.3.3 Prevalence measurements	59
5.3.4 Incidence measurements	61
5.3.5 Recovery measurements	65
5.3.6 Measurements of mortality from diseases	66
5.3.7 Fatality rates, also Case Fatality Rates	70
5.3.8 Lifetime measurements	72
5.4 The renewal of epidemiologic potentials	73
6 The phases of communicable disease epidemics	79

7	The assessment of epidemics	89
8	The management of epidemics and pandemics	95
8.1	Data and information management during epidemics	96
8.2	Screening	97
8.3	Prevention of infections	99
8.4	Public health management concepts against epidemics	100
8.5	The future of public health	102