

Table 1. Parameters used

Model parameters	Symbol	Value	Function	Source
SEIR-epidemics				
Probability of infection	β	----	Network effect	
Days incubation time	λ_{vE}	1	Fixed	
Days spent pre-symptomatic	λ_{iPS}	5	Poisson	FHI model, adjusted for reduced incubation time
Days symptomatic before recovery	λ_{iSR}	5	Poisson	FHI model
Days symptomatic before hospitalization	λ_{iSH}	6	Poisson	Data from HSØ
Days symptomatic in nursing home before death	λ_{iND}	10	Poisson	Data from HSØ
Days in hospital before recovery (no ICU)	λ_{iHR}	8	Poisson	Data from HSØ
Days in hospital before ICU	λ_{iHI}	4	Poisson	Data from HSØ
Days in ICU before recovery	λ_{iIR}	12	Poisson	Data from HSØ
Days in ICU before death	λ_{iID}	12	Poisson	Data from HSØ
Days asymptomatic before recovery	λ_{iaR}	8	Poisson	FHI model adjusted for reduced incubation time
% exposed developing symptoms	P_i	50	Bernoulli	
% hospitalized dying outside of hospital	P_{ND}		Bernoulli	
nursing home residents 70-79 years		26		Adjusted to Norwegian hosp. death rates, Verity et al
nursing home residents 80-89 years		42		Adjusted to Norwegian hosp. death rates, Verity et al
All others		0		
% hospitalized dying	P_{HD}		Bernoulli	Verity et al, Lancet, 2020
0-9 years		1.61 e-3		
10-19 years		6.95 e-3		
20-29 years		3.09 e-2		
30-39 years		8.44 e-2		
40-49 years		0.161		
50-59 years		0.595		
60-69 years		1.93		
70-79 years		4.28		
80+ years		7.8		
% symptomatic being hospitalized	P_{iSH}		Bernoulli	Verity et al, Lancet, 2020
0-9 years		0		
10-19 years		0.048		
20-29 years		1.04		
30-39 years		3.43		
40-49 years		4.25		
50-59 years		8.16		
60-69 years		11.8		
70-79 years		16.6		
80+ years		18.4		
% hospitalized needing ICU	P_{HI}	30	Bernoulli	Fitted to FHI ICU numbers
% not developing immunity	P_{RS}	0	Bernoulli	
Individual-based network model				
Infectiousness in Day Care		0.015%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness in Primary School		0.002%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness Secondary School		0.015%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness High School		0.015%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness Household		15%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness Work		0.015%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness Nursing Home		20.0%	Bernoulli	estimated IBM fit to Norwegian clinical data
Infectiousness Generic Contact		1.15%	Bernoulli	estimated IBM fit to Norwegian clinical data