

Table 1. Parameters used

Model parameters	Symbol	Value	Function	Source
<b>SEIR-epidemics</b>				
Probability of infection	$\beta$	----	Network effect	
Days incubation time	$\lambda_E$	1	Fixed	
Days spent pre-symptomatic	$\lambda_{ips}$	5	Poisson	FHI model, adjusted for reduced incubation time
Days symptomatic before recovery	$\lambda_{isR}$	5	Poisson	FHI model
Days symptomatic before hospitalization	$\lambda_{isH}$	6	Poisson	Data from HSØ
Days symptomatic in nursing home before death	$\lambda_{iND}$	10	Poisson	Data from HSØ
Days in hospital before recovery (no ICU)	$\lambda_{iHR}$	8	Poisson	Data from HSØ
Days in hospital before ICU	$\lambda_{iHi}$	4	Poisson	Data from HSØ
Days in ICU before recovery	$\lambda_{iIR}$	12	Poisson	Data from HSØ
Days in ICU before death	$\lambda_{iID}$	12	Poisson	Data from HSØ
Days asymptomatic before recovery	$\lambda_{iaR}$	8	Poisson	FHI model adjusted for reduced incubation time
% exposed developing symptoms	$P_i$	50	Bernoulli	
% symptomatic 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	$P_{sH}$		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	
<b>Individual-based network model</b>				
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		1,50 %	Bernoulli	estimated IBM fit to Norwegian clinical data
<b>Dynamic model adjustments</b>				
Relative infectiousness of generic contacts after March 12		17 %		estimated IBM fit to Norwegian clinical data
Workplace presence after March 12		50 %		estimated IBM fit to Norwegian clinical data
Kindergarten opening date		20.apr		
School opening date (grades 1-4)		27.apr		
School opening date (grades 5-12)		11.mai		