Table S1: Probability distribution functions and ranges of values for input parameters that were made vary in order to carry out sensitivity analyses.

Parameter	Probability distribution functions			References
	Min	Max	Function shape	
Input parameters related to the pandemic				
Mean duration of latent period (in days)	1.2	1.9	10 distinct values between min and max were tested	[1,2]
Mean duration of infectious period (in days)	2.5	4.0	10 distinct values between min and max were tested	[1,2]
City of emergence	1	52	Discrete Uniform	
Month of emergence	1	12	Discrete Uniform	
Basic rate of transmission	0.01	1.5	Uniform continuous	[3-6]
Amplitude of seasonal effect	0.1	1	Uniform continuous	
Initial proportion of susceptibles	0.25	1	Uniform continuous	[7-12]
Input parameters related to interventions				
Efficacy of the pandemic vaccine	0.3	0.7	Uniform continuous	[5, 13-17]
Efficacy of masks for susceptibility to infection	0	1	Uniform continuous	
Efficacy of antiviral prophylaxis for susceptibility to infection	0.2	0.5	Uniform continuous	[1,18-19]
Efficacy of antiviral prophylaxis for illness given infection	0.4	0.8	Uniform continuous	[1]
Efficacy of antiviral therapy for infectiousness	0.4	0.8	Uniform continuous	[1,18,20]
Efficacy of isolation	0.2	0.7	Uniform continuous	[21]
Proportion of individuals to which the measure is applied (coverage in the target population)				
Pandemic vaccination (initial susceptibles*)	0.001	1	Uniform continuous	
Masks (susceptibles non vaccinated*)	0.001	1	Uniform continuous	
Antiviral Prophylaxis (susceptibles non vaccinated*)	0.001	1	Uniform continuous	
Antiviral Therapy (ill*)	0.001	1	Uniform continuous	
Isolation (ill, treated or non treated*)	0.001	1	Uniform continuous	
Proportion of susceptible individuals completely protected after the pre-pandemic vaccination campaign	0	0.2	Uniform continuous	[22]
Reduction of air traffic	0.001	1	Uniform continuous	
Date of introduction (in days)				
Pandemic vaccination	5	60/250**	Discrete Uniform	
Masks	5	60/250**	Discrete Uniform	
Antiviral Prophylaxis	5	60/250**	Discrete Uniform	
Antiviral Therapy	5	60/250**	Discrete Uniform	
Isolation	5	60/250**	Discrete Uniform	
Travel restrictions	5	60/250**	Discrete Uniform	
Duration of per-pandemic vaccination campaign (in days)	10	30	Discrete Uniform	

*Target population (representing the denominator when calculating the proportion of individuals to whom the intervention is applied) is indicated in brackets;

**For the date of interventions introduction, the upper bound was different according to the profile that was analyzed: 60 corresponds to the short and massive pandemic lasting 89 days and 250 to the long-lasting pandemic profile lasting 297 days.

An extensive literature research aimed at collecting information on the intervals of variation of each input parameter and on the possible shape of the probability distribution functions. When no information was available on the limits of the interval, we defined an interval of variation as large as possible to explore all possible values of the input parameter.
In the absence of precise information on the shapes of the probability distribution functions, we have chosen Uniform distributions for all input parameters and large ranges of variation.

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