

Table 3: First-order SI sensitivity of optimal vaccine allocation to epidemiological parameters of the seasonal influenza model for the five different outcome measures.

Outcome measure						
	Deaths		Years of life loss		Contingent value	
	Parameter	SI	Parameter	SI	Parameter	SI
Age group 5-17	Recovery rate ages 0-14	0.51	Recovery rate ages 0-14	0.46	Recovery rate ages 0-14	0.50
	Recovery rate ages 15+	0.30	Recovery rate ages 15+	0.29	Recovery rate ages 15+	0.28
	Reproductive number (<i>R</i>)	0.10	Reproductive number (<i>R</i>)	0.19	Reproductive number (<i>R</i>)	0.16
Age group 18-44	Recovery rate ages 0-14	0.48	Recovery rate ages 15+	0.33	Recovery rate ages 0-14	0.41
	Recovery rate ages 15+	0.47	Recovery rate ages 0-14	0.32	Recovery rate ages 15+	0.35
	Reproductive number (<i>R</i>)	0.03	Reproductive number (<i>R</i>)	0.20	Reproductive number (<i>R</i>)	0.13
High-risk group	Recovery rate ages 15+	0.41	Reproductive number (<i>R</i>)	0.81	Reproductive number (<i>R</i>)	0.77
	Recovery rate ages 0-14	0.30	Vaccine efficacy (vs infection) ages 16-65	0.06	Recovery rate ages 15+	0.04
	Reproductive number (<i>R</i>)	0.21	Recovery rate ages 15+	0.03	Vaccine efficacy (vs infection) ages 16-65	0.03
	Infections			Hospitalizations		
	Parameter	SI	Parameter	SI		
Age group 0.5-4	Recovery rate ages 15+	0.56	Recovery rate ages 15+	0.52		
	Recovery rate ages 0-14	0.41	Recovery rate ages 0-14	0.41		
	Vaccine efficacy (vs infection) ages 0.5-16	0.004	Vaccine efficacy (vs infection) ages 16-65	0.03		
Age group 5-17	Recovery rate ages 0-14	0.54	Recovery rate ages 0-14	0.54		
	Recovery rate ages 15+	0.43	Recovery rate ages 15+	0.33		
	Susceptibility ages 5-17	0.013	Reproductive number (<i>R</i>)	0.07		
Age group 18-44	Recovery rate ages 15+	0.49	Recovery rate ages 0-14	0.46		
	Recovery rate ages 0-14	0.48	Recovery rate ages 15+	0.41		
	Susceptibility ages 5-17	0.006	Vaccine efficacy (vs infection) ages 16-65	0.08		

The first-order sensitivity index (SI) was used to determine the contribution of input parameters to the variability of the optimal proportions of individuals vaccinated per group. The analysis only considered groups with sufficient variability in the distribution of the optimal proportion of vaccinated individuals (Figure 1). The amount of vaccine was 80M doses.