Supplementary Table 2: Model input parameters, assumptions, and references

Model parameter	Input (on campus)	Input (off campus)
Population (N_i)	7,500 (assumption)	17,500 (assumption)
Disease dynamics		
…Mean incubation time, $1/\sigma$	3 days [1]	3 days [1]
…Mean asymptomatic infectious time (days), $1/\varphi$	14 days [1]	14 days [1]
…Mean symptomatic infection time before detection and isolation (days), $1/\gamma$	3 days [2]	3 days [2]
…Isolation time, $1/\rho$ (days)	11 days [3]	11 days [3]
…Proportion of infections that are symptomatic and isolate, α	1/3*	1/3*
Within population transmission rate, β_{ii}	Dependent on R_0, φ, γ, α	Dependent on R_0, φ, γ, α
Between population transmission rate, β_{ij}	$\varepsilon\beta_{ii}$, where $\varepsilon = 0.10$ by assumption**	$\varepsilon\beta_{ii}$, where $\varepsilon = 0.10$ by assumption**
Percent infected at baseline (%)	2% [4]	2% [4]
Percent recovered at baseline (%)	10% [2,5]	10% [2,5]
Mitigation strategies throughout semester (R_0)		
…Highly effective (best case)	1.5 [6]	1.5 [6]
…Moderately effective	2 [7]	2 [7]
…Ineffective	3	3
…Highly ineffective (worst case)	4 [7]	4 [7]
Test characteristics		
…Sensitivity (%)	90% [8,9]	90% [8,9]
…Specificity (%)	100% (assumption)	100% (assumption)

***** Assumes 50% of infections symptomatic[10], but only 2/3 symptomatic students will get tested and isolate.

****** This formulation assumes there is equal cross-coupling[11] between on- and off-campus populations; on-campus students may make short-lived visits off campus, and vice versa. Therefore the between population transmission rate ($\beta_{ij} = \epsilon \times \beta_{ii}$) is assumed to be much smaller than the within population transmission rate (β_{ii}), and is computed by multiplying β_{ii} by a small constant (ϵ).

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