

Scenarios:

### 1. With phylogenetic model importation

Hypothesis: the isolation probability is much higher after March 2023, what Fol should we use?

- $P(\text{isolation} \mid \text{symp, aware}) = 0.2 \rightarrow 0.5$
- $\text{Fol} = ?$

		<i>P(Isolation / diagnosed, symptomatic)</i>					
<i>FOI</i>		0	0.2	0.3	0.4	0.5	0.8
	0.7		S13			S1	
	1.45		S12			S2	
	2.2	S7	S6	S5	S4	S3	S14

Hypothesis: Fol back to the pre-August 2022 level, = 2.2, What should  $P(\text{isolation} \mid \text{symp, aware})$  be?

- Fix  $\text{Fol} = 2.2$
- $P(\text{isolation} \mid \text{symp, aware}) = ?$

		<i>P(Isolation / diagnosed, symptomatic)</i>					
<i>FOI</i>		0	0.2	0.3	0.4	0.5	0.8
	0.7		S13			S1	
	1.45		S12			S2	
	2.2	S7	S6	S5	S4	S3	S14

Hypothesis: Can behavior change in months where we see most of the importations prevent increase in cases?

- For week 4 – 16 (Apr-Jun) and week 26 – 34 (Sept-Oct),  $\text{FOI} = 0.7$  (S11)

- For week 4 – 16 (Apr-Jun), FOI = 0.7 (S15)
- For week 26 – 34 (Sept-Oct), FOI = 0.7 (S16)
- FOI = 2.2 for the other time periods

**Hypothesis: Can behavior change with the same number of months as in the previous hypothesis prevent increase in cases?**

- Randomly select 22 weeks with FOI = 0.7 (S17)
- Randomly select 13 weeks with FOI = 0.7 (S18)
- Randomly select 9 weeks with FOI = 0.7 (S19)
- FOI = 2.2 for the other time periods

**Hypothesis: P(ISO) remains the same as the previous levels, what should the FOI be?**

		<i>P(Isolation   diagnosed, symptomatic)</i>					
<i>FOI</i>		0	0.2	0.3	0.4	0.5	0.8
	0.7		S13			S1	
	1.45		S12			S2	
	2.2	S7	S6	S5	S4	S3	S14

		<i>P(Isolation   diagnosed, symptomatic)</i>					
<i>FOI</i>		0	0.2	0.3	0.4	0.5	0.8
	0.7		S13			S1	
	1.6		S20			S2	
	1.8		S21				
	2.0		S22				
	2.2	S7	S6	S5	S4	S3	S14

## 2. Without phylogenetic model importation

- FOI = 0.7, P(ISO) = 0.2, no importation (**S0**)
- FOI = 0.7, P(ISO) = 0.2, constant importation 5/10/15 every week (**S8, S9, S10**)