$$Pr[C \mid PT_1, NT_2]$$

$$= \frac{Pr[NT_2 \mid C, PT_1] \times P[C \mid PT_1]}{Pr[NT_2 \mid PT_1]}$$

$$\Pr[\text{No Covid}]$$

$$= \Pr[NC_1 \cap NC_2 \cap NC_3 \cap \cdots \cap NC_n]$$

$$= \Pr[NC_1]\Pr[NC_2] \times \cdots \times \Pr[NC_n]$$

$$= \Pr[NC]^n$$

$$= (1 - \Pr[C])^n$$

$$\Pr[\geq 1\ C] = 1 - (1 - \Pr[C])^n$$