



**Figure S4:** Relative mean pairwise diversity,  $\pi/\bar{\pi}$ , after a selective sweep from *de novo* mutation during evolutionary rescue (blue;  $d = 0.05$ ) or in a population of roughly constant size (red;  $d = 0$ ). The thickest curves are  $\mathbb{E}[\pi]/\mathbb{E}[\pi|unlinked]$  (using Equation 9). The thinnest curves are 100 replicate simulations (rescue only for clarity) and the slightly thicker curves are simulation means (often obscured by prediction). Parameters:  $N(0) = 10^4$ .