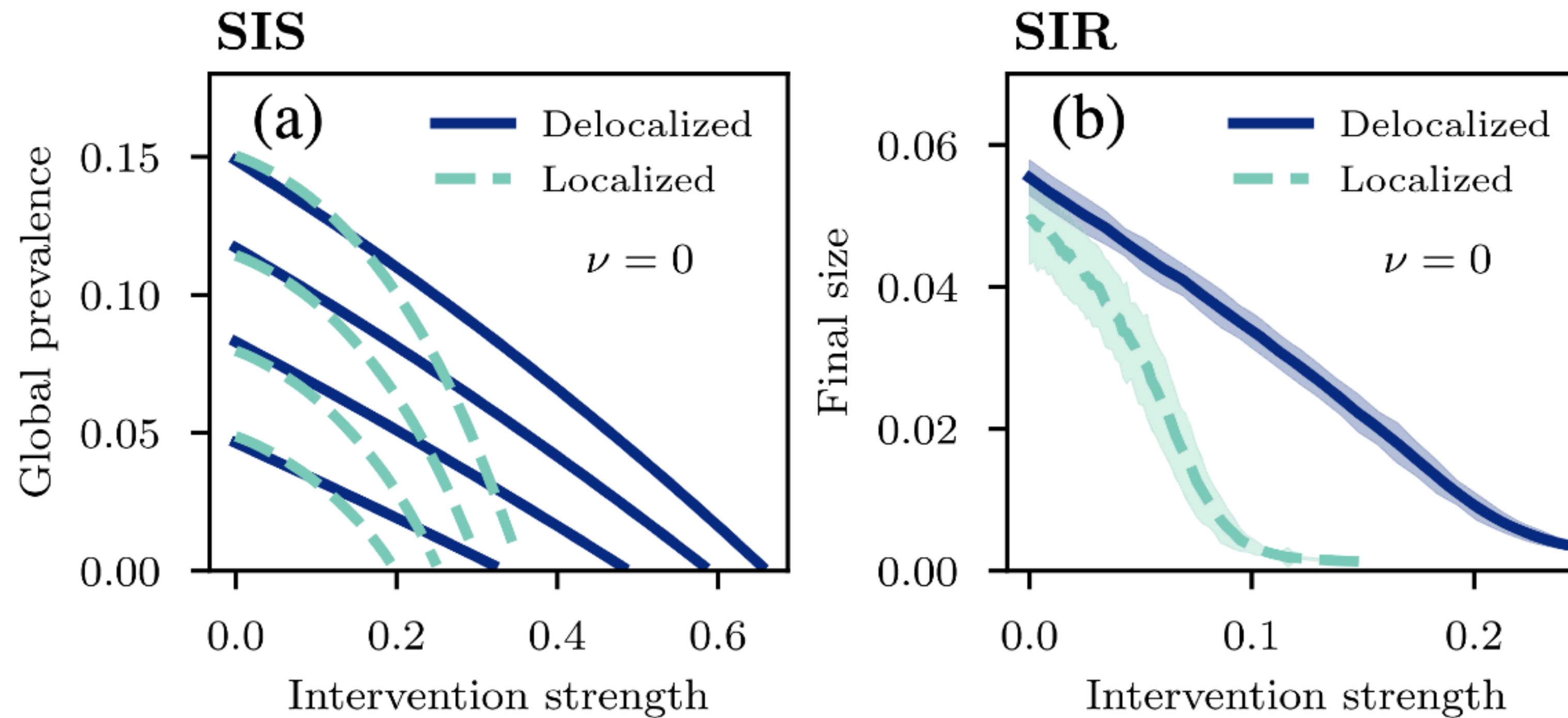


# Mesoscopic localization

Message #3: Mesoscopic localization offers an opportunity for efficient interventions.

Intervention: enforcing a hard cutoff,  $n_{\max}$ , on the size of groups; the lower  $n_{\max}$  is, the stronger is the intervention.

$$\begin{aligned}\Theta_{n,i,\beta} &= \beta i n^{-\nu} \\ \nu &\in [0, 1] \\ p_n &\propto n^{-\gamma_n} \\ g_m &\propto m^{-\gamma_m} \\ \mu &= 1 \\ \gamma_m &= \gamma_n = 3.5\end{aligned}$$



# Mesoscopic localization

## Main takeaways

- The phenomenon of localization extends to mesoscopic structures like groups.
- Mesoscopic localization is the rule rather than the exception.
- Interventions at the group level are more efficient in presence of localization.

PHYSICAL REVIEW LETTERS **126**, 098301 (2021)

### Social Confinement and Mesoscopic Localization of Epidemics on Networks

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PHYSICAL REVIEW E **103**, 032301 (2021)

### Master equation analysis of mesoscopic localization in contagion dynamics on higher-order networks

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