

$$c'(f_B) = 50$$
 (derivative of high vaccine-distribution cost function)
--- $c'(f_B) = 20$ (derivative of medium vaccine-distribution cost function)
--- $c'(f_B) = 5$ (derivative of low vaccine-distribution cost function)
.... f_A^* (optimal f_A for country A when $f_B = 1$) and $g(f_A^*)$