$\mu$  true = 1.2, N mature = 1000 8.0 ODE:  $\tilde{\mu} = 1.25$ true population  $E(\tilde{\mu}) = 0.74$ sim av:  $\tilde{\mu} = 1.25$  $\sigma(\tilde{\mu}) = 0.69$ 0.020 sampled sim 1:  $\tilde{\mu} = 0.26$ sample sampled sim 2:  $\tilde{\mu}$  = 2.22  $E(\tilde{\mu}) = 0.73$ of simulations sampled sim 3:  $\tilde{\mu}$  = 0.66 0.6  $\sigma(\tilde{\mu}) = 0.73$ fraction of cells 0.4 fraction 0.2 0.005 0.000 0.0 350 400 450 500 550 600 6 single cell burden