Parameter estimates for 2−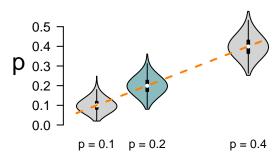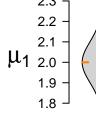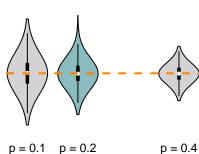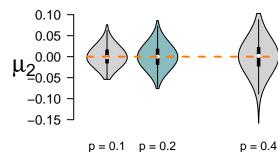cell pools