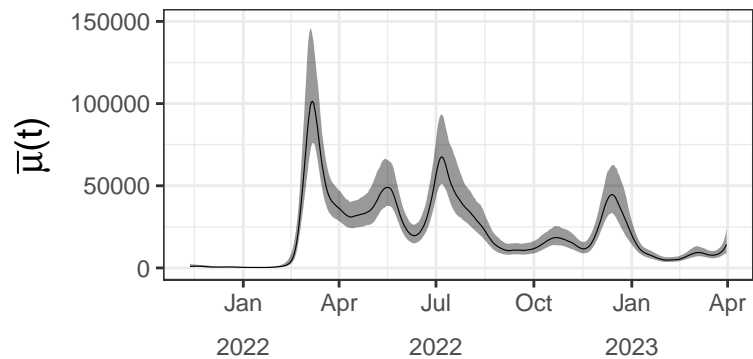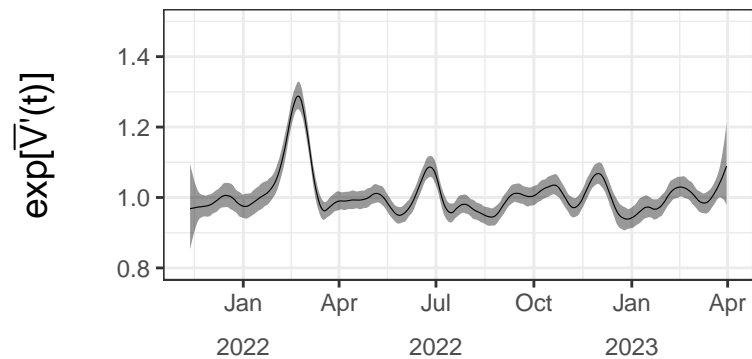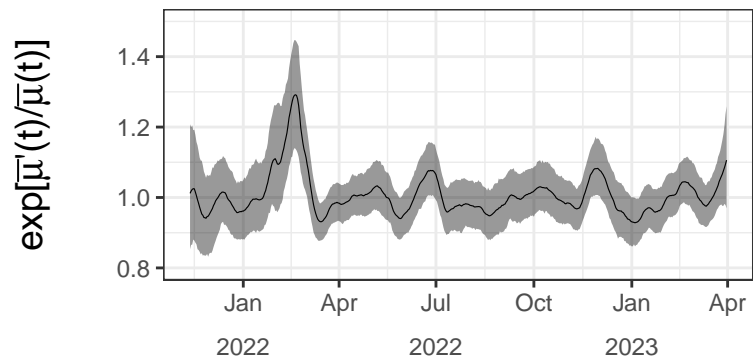a) Signal, $U_i(t)$ omitted

b) Signal, $U_i(t)$ included

c) Geometric derivative of signal, $U_i(t)$ omitted

d) Geometric derivative of signal, $U_i(t)$ included