Model fit to data for selected variables Total Rx misuse initiation Total heroin initiation 2.5 0.8 Incidence (millions/year) 2.0 0.6 1.5 0.4 1.0 0.2 0.5 0.0 Total Rx opioid use disorder Heroin use disorder Use disorder prevalence (millions) 3.0 2.5 2.5 2.0 2.0 1.5 1.5 1.0 1.0 0.5 0.5 0.0 Overdose deaths (Rx opioids only) Overdose deaths (heroin & illicit synthetics) Overdose deaths (thousands/year) 60 50 40 30 20 10

2003

1999

2009

2011

2007

2015

2017

2019

2001 2003 2005

2009

2011

2007

2013

2019

2017