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Eli E Goldwyn* (goldwyn@up.edu), University of Portland, 5000 N Willamette Blvd, Portland, OR 97203. *Compartmental models of the opioid epidemic*. Preliminary report.

Drug overdoses have become the leading cause of death of Americans under age 50, with two-thirds of those deaths coming from opioids. Unlike many other illicit drug epidemics, opioid addiction is widely believed to be caused by legally prescribed medications. We develop and analyze several compartmental differential equation models to better understand the role of prescriptions in the current opioid crisis. (Received January 28, 2019)