Supplemental material for :

Hero J, McMurtry C, Benson J, Blendon R. Discussing opioid risks with patients to reduce misuse and abuse: evidence from 2 surveys. *Ann Fam Med*. 2016;14(6):575-577.

Supplemental Appendix

The table below shows the output from the logistic regression used to estimate the association between discussing the risk of addiction with a physician and pill-saving behavior. Coefficients are expressed as log-odds.

Table 1: Logistic regression results. (Coefficients expressed as log odds)

	Dependent variable:	
	Saved prescription painkillers for later	
	(National)	(Massachusetts)
Discussed risk of addiction	−1.182** (0.469)	−0.936* (0.550)
Knew someone who abused	1.182** (0.459)	0.716 (0.493)
Female (Ref: Male)	0.766 (0.470)	−0.799 (0.503)
under 30 (Ref: 30-64)	−0.439 (0.600)	0.963 (0.698)
65+	−0.788 (0.769)	0.528 (0.774)
Black, non-Hispanic (Ref: White, non Hispanic)	−0.591 (0.793)	–
Hispanic	0.817 (0.691)	0.675 (0.834)
Other	−1.645 (1.342)	−0.334 (1.745)
Middle Low 20000–45000 (Ref: Low, <20000)	1.062 (0.703)	0.793 (0.691)
Middle High 45000-87500	0.623 (0.757)	0.345 (0.700)
High 87500+	0.995 (0.698)	1.169 (0.707)
Rural (Ref: Urban)	0.648 (0.481)	−0.557 (1.661)
Suburban	0.528 (0.563)	0.629 (0.668)
Midwest (ref: East)	−1.535** (0.722)	
South	−0.636 (0.547)	
West	−1.061 (0.747)	
Constant	−1.981** (0.974)	−2.221** (0.948)
Observations	194	143
Log Likelihood	-66.823	-68.635
Akaike Inf. Crit.	167.646	165.270
Note:		$^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table A1. (produced using the stargazer package in R)[1]

Twenty-one observations in the national dataset and twenty-four in the Massachusetts dataset had missing demographic data in the income and age variables and were removed from this analysis using listwise deletion.

Survey Instrument
Harvard T.H. Chan School of Public Health/Boston Globe
Prescription Painkiller Poll
I. Perceived Seriousness of the Problem and General Concern

1. How serious do you think the following problems are in the state of [name of state]? How about abuse of (*read, randomize except always read Rx painkillers last*)? Do you think that is an extremely serious problem in [name of state], very serious, somewhat serious, not too serious, or not a problem at all?

    a. Heroin
    b. Alcohol (half-sample A)
    c. Marijuana (half-sample B)
    d. Strong prescription painkillers, such as Percocet, OxyContin or Vicodin

When we ask about prescription painkillers in this poll, we mean strong ones, sometimes called opioids, such as Percocet, OxyContin or Vicodin.

2. Do you believe the problem of prescription painkiller abuse in [name of state] is better, worse, or about the same as it was 5 years ago? (Half-sample C)

3. How likely do you think it is that a person taking a strong prescription painkiller will become addicted to it? Very likely, somewhat likely, somewhat unlikely, or very unlikely*? (reverse scale for half of respondents)*

4. Do you think prescription painkiller abuse makes a person more likely or less likely to use heroin or other illegal drugs, or do you think it doesn't make much of a difference? (Half-sample D)

4a. To the best of your knowledge, is there a treatment for prescription painkiller addiction that is effective for a long period of time, or isn't there such a treatment?

II. Personal Experience

Many people take prescription painkillers for health problems they have.

5. During the past 2 years, have you taken any strong prescription painkillers, such as Percocet, OxyContin or Vicodin, prescribed by a doctor for you to use for more than a few days, or not?

6. (If took Rx painkiller) Before or while you were taking these strong prescription painkillers, did you and your doctor talk about the risk of prescription painkiller addiction, or haven't you talked about that?

7. (If took Rx painkiller) When you were taking these strong prescription painkillers, were you concerned that taking them could lead you to become addicted, or weren't you concerned with that? (If concerned) Were you very concerned, somewhat concerned, or not too concerned?

8. (If took Rx painkiller) Some people save strong prescription painkillers after the prescribed length of time in case they or a family member need them for another health problem in the future. Have you saved any of these strong prescription painkillers to use later on, or is this something you haven't done?

9. (If took Rx painkiller) Some people have reported that they believe other people have used or taken some of their prescription painkillers. In the past 2 years, have you known or suspected that someone else was using, taking, or selling your strong prescription painkillers, or haven't you thought this?

III. Rx Painkiller Abuse Problems among People You Know

10. During the past 5 years, have you known anyone who has abused prescription painkillers, or not?

11. (If knew someone) Do you believe that person's abuse of prescription painkillers led to their using heroin or other illegal drugs, or don't you believe it did?

12. (If knew someone) Did that person's abuse of prescription painkillers have a harmful effect on (*read first item, randomize*), or not? (If harmful effect) Did it have a major or minor harmful effect? Did it have a harmful effect on (*next item*), or not?

    a. Their family life
    b. Their work life
    c. Their school life
    d. Their health

13. (If knew someone) Did it lead to their dying, or didn't this happen?

IV. Regulation and Treatment

14. The [name of state] state and federal governments currently regulate the prescribing and availability of strong prescription painkillers. Do you believe these regulations make it too easy or too hard for people to get strong prescription painkillers, or do you think they are about right?

15. There is a drug called Narcan or naloxone that can prevent people from dying if they are experiencing an overdose of a prescription painkiller or heroin. Right now, adults in some states can buy this drug from pharmacists at many chain or retail pharmacies. Some other states restrict adults' ability to buy this drug because they think it might encourage use of illegal drugs. Do you favor or oppose letting adults buy this drug from pharmacists at chain or retail pharmacies?

16. Many health insurance plans in [name of state] provide only limited coverage for drug treatment programs for people addicted to prescription painkillers or heroin. Some have suggested that the state government require private health insurers to provide more

[1] Hlavac, Marek (2015). stargazer: Well-Formatted Regression and Summary Statistics Tables. R package version 5.2. http://CRAN.R-project.org/package=stargazer