Additional file 3: Stepwise regression

Note: Inclusion frequency is estimated using bootstrap (number of iterations = 2,000).

Table S3.1. Backward elimination regression using AIC

Variables	Backward elimination, AIC			
	Beta	95% CI (asymptotic)	95% CI (bootstrap)	Inclusion frequency
(Intercept)	79.57	(73.96 ; 85.18)	(73.31 ; 85.83)	1.00
sex	-2.39	(-4.58 ; -0.2)	(-4.41 ; -0.37)	0.86
age.d	-4.76	(-6.57 ; -2.95)	(-6.47 ; -3.05)	1.00
education	3.18	(-0.1 ; 6.47)	(-0.66 ; 7.03)	0.72
income.source				0.16
income.level	-3.76	(-5.77 ; -1.74)	(-5.86 ; -1.65)	0.99
living.sit_1	1.42	(-0.51 ; 3.36)	(-0.49 ; 3.34)	0.59
living.sit_2				0.20
marital				0.31
CAGE	-1.80	(-3.85 ; 0.25)	(-3.88 ; 0.28)	0.62
age.drug.use	-3.40	(-5.36 ; -1.45)	(-5.36 ; -1.44)	0.96
main.drug_1				0.29
main.drug_2				0.22
poly.drug	-3.61	(-6.24 ; -0.99)	(-6.14 ; -1.09)	0.90
drug.freq.days	-1.78	(-3.76 ; 0.2)	(-3.92 ; 0.36)	0.50
drug.freq.times				0.24
inject.used.recent	-2.16	(-4.23 ; -0.09)	(-4.53 ; 0.21)	0.71
inject.used.ever				0.24
get.unused.syr				0.23
overdose				0.20
MHI5	-2.62	(-4.58 ; -0.65)	(-4.71 ; -0.52)	0.85
sex.active				0.36
sell.sex.6m				0.44
pay.sex.6m	2.70	(-0.68 ; 6.08)	(-0.25 ; 5.65)	0.46
HIV.HC.partner_1	-2.08	(-4.86 ; 0.7)	(-5.13 ; 0.98)	0.53
HIV.HC.partner_2	-2.20	(-4.68 ; 0.29)	(-4.88 ; 0.49)	0.53
HIV.test	3.46	(-0.28 ; 7.2)	(-0.48 ; 7.41)	0.66
HIV.status	-1.88	(-4.16 ; 0.39)	(-4.2 ; 0.43)	0.63
HIV.care_1				0.37
HIV.care_2	-5.32	(-7.89 ; -2.75)	(-8.03 ; -2.61)	0.86
TB	-3.39	(-6.91 ; 0.13)	(-6.5 ; -0.27)	0.72
HepC.treatment_1	-3.96	(-6.29 ; -1.63)	(-6.38 ; -1.54)	0.96
HepC.treatment_2	-6.42	(-10.39 ; -2.44)	(-11.47 ; -1.37)	0.93
HepC.treatment_3				0.32
HepB.aware				0.22
HepB.vaccine	1.79	(-0.29 ; 3.88)	(-0.33 ; 3.91)	0.60
incarceration	-1.52	(-3.44 ; 0.41)	(-3.36 ; 0.33)	0.54
med.insurance				0.48
med.care.12m	-1.52	(-3.45 ; 0.4)	(-3.44 ; 0.39)	0.51
detox_1	-5.57	(-8.55 ; -2.58)	(-8.67 ; -2.46)	0.96
detox_2	-4.78	(-7.99 ; -1.57)	(-7.75 ; -1.81)	0.94
drug.treat.problems_1	1.56	(-0.33 ; 3.44)	(-0.37 ; 3.48)	0.48
drug.treat.problems_2				0.30
med.care.problems	-4.35	(-8.12 ; -0.58)	(-8.02 ; -0.69)	0.79
police.confiscate.syr				0.24
IDU.disclosure.close				0.25
IDU.disclosure.doctor				0.23
IDU.stigma.internal	-3.94	(-5.97 ; -1.91)	(-6.02 ; -1.86)	0.98
IDU.stigma.conscious	1.42	(-0.46 ; 3.31)	(-0.56 ; 3.41)	0.56
Adjusted R²	**0.38**			

Table S3.2. Backward elimination regression using BIC

Variables	Backward elimination, BIC			
	Beta	95% CI (asymptotic)	95% CI (bootstrap)	Inclusion frequency
(Intercept)	82.69	(79.84 ; 85.55)	(79.99 ; 85.4)	1.00
sex				0.31
age.d	-4.49	(-6.24 ; -2.75)	(-6.2 ; -2.79)	0.99
education				0.39
income.source				0.02
income.level	-4.78	(-6.76 ; -2.81)	(-6.81 ; -2.76)	0.96
living.sit_1				0.13
living.sit_2				0.03
marital				0.03
CAGE				0.33
age.drug.use	-3.36	(-5.26 ; -1.46)	(-5.25 ; -1.48)	0.76
main.drug_1				0.08
main.drug_2				0.05
poly.drug	-3.70	(-6.29 ; -1.11)	(-6.12 ; -1.28)	0.59
drug.freq.days				0.31
drug.freq.times				0.10
inject.used.recent	-2.61	(-4.6 ; -0.62)	(-4.78 ; -0.44)	0.48
inject.used.ever				0.05
get.unused.syr				0.03
overdose				0.03
MHI5	-3.50	(-5.4 ; -1.6)	(-5.56 ; -1.45)	0.61
sex.active				0.13
sell.sex.6m				0.06
pay.sex.6m				0.14
HIV.HC.partner_1				0.21
HIV.HC.partner_2				0.20
HIV.test				0.28
HIV.status				0.34
HIV.care_1				0.21
HIV.care_2	-7.17	(-9.25 ; -5.09)	(-9.43 ; -4.92)	0.80
TB				0.30
HepC.treatment_1	-4.21	(-6.48 ; -1.95)	(-6.62 ; -1.8)	0.77
HepC.treatment_2	-6.08	(-10.07 ; -2.09)	(-10.89 ; -1.27)	0.63
HepC.treatment_3				0.04
HepB.aware				0.03
HepB.vaccine	2.89	(0.9 ; 4.88)	(0.85 ; 4.93)	0.33
incarceration				0.17
med.insurance				0.18
med.care.12m				0.15
detox_1	-4.41	(-7.28 ; -1.54)	(-7.47 ; -1.34)	0.77
detox_2				0.56
drug.treat.problems_1				0.16
drug.treat.problems_2				0.15
med.care.problems	-5.44	(-9.2 ; -1.69)	(-9.29 ; -1.6)	0.46
police.confiscate.syr				0.04
IDU.disclosure.close				0.07
IDU.disclosure.doctor				0.04
IDU.stigma.internal	-3.36	(-5.34 ; -1.38)	(-5.41 ; -1.3)	0.88
IDU.stigma.conscious				0.14
Adjusted R²	**0.35**			

Table S3.3. Backward elimination regression using Likelihood Ratio Test (p=0.05)

Variables	Backward elimination, LRT (p=0.05)			
	Beta	95% CI (asymptotic)	95% CI (bootstrap)	Inclusion frequency
(Intercept)	77.57	(72.44 ; 82.71)	(71.71 ; 83.43)	1.00
sex	-2.43	(-4.59 ; -0.27)	(-4.41 ; -0.44)	0.66
age.d	-5.00	(-6.78 ; -3.22)	(-6.73 ; -3.27)	1.00
education	3.49	(0.22 ; 6.77)	(-0.42 ; 7.4)	0.56
income.source				0.06
income.level	-4.58	(-6.54 ; -2.62)	(-6.58 ; -2.59)	0.98
living.sit_1				0.35
living.sit_2				0.08
marital				0.13
CAGE				0.47
age.drug.use	-3.53	(-5.43 ; -1.62)	(-5.42 ; -1.64)	0.90
main.drug_1				0.14
main.drug_2				0.10
poly.drug	-3.51	(-6.09 ; -0.92)	(-5.96 ; -1.05)	0.79
drug.freq.days				0.39
drug.freq.times				0.14
inject.used.recent	-2.84	(-4.82 ; -0.87)	(-5 ; -0.69)	0.59
inject.used.ever				0.10
get.unused.syr				0.09
overdose				0.09
MHI5	-3.09	(-4.98 ; -1.2)	(-5.12 ; -1.06)	0.75
sex.active				0.24
sell.sex.6m				0.22
pay.sex.6m				0.29
HIV.HC.partner_1				0.34
HIV.HC.partner_2				0.34
HIV.test	3.96	(0.3 ; 7.62)	(0.15 ; 7.77)	0.49
HIV.status				0.48
HIV.care_1				0.26
HIV.care_2	-7.32	(-9.42 ; -5.22)	(-9.58 ; -5.06)	0.81
TB	-4.06	(-7.56 ; -0.55)	(-7.17 ; -0.94)	0.53
HepC.treatment_1	-4.39	(-6.66 ; -2.11)	(-6.79 ; -1.99)	0.90
HepC.treatment_2	-6.61	(-10.58 ; -2.64)	(-11.44 ; -1.78)	0.83
HepC.treatment_3				0.14
HepB.aware				0.08
HepB.vaccine	2.34	(0.33 ; 4.36)	(0.29 ; 4.4)	0.46
incarceration				0.34
med.insurance				0.31
med.care.12m				0.33
detox_1	-5.52	(-8.4 ; -2.64)	(-8.55 ; -2.48)	0.91
detox_2	-4.06	(-7.23 ; -0.89)	(-6.97 ; -1.14)	0.81
drug.treat.problems_1				0.31
drug.treat.problems_2				0.21
med.care.problems	-5.28	(-9.01 ; -1.54)	(-8.97 ; -1.58)	0.64
police.confiscate.syr				0.10
IDU.disclosure.close				0.13
IDU.disclosure.doctor				0.10
IDU.stigma.internal	-3.39	(-5.37 ; -1.42)	(-5.41 ; -1.38)	0.94
IDU.stigma.conscious				0.33
Adjusted R²	**0.37**			

Table S3.4. Forward selection regression using AIC

Variables	Forward selection, AIC			
	Beta	95% CI (asymptotic)	95% CI (bootstrap)	Inclusion frequency
(Intercept)	75.89	(70.15 ; 81.64)	(69.19 ; 82.6)	1.00
sex	-2.59	(-4.76 ; -0.42)	(-4.58 ; -0.6)	0.81
age.d	-4.82	(-6.64 ; -3.01)	(-6.55 ; -3.1)	1.00
education	2.97	(-0.31 ; 6.25)	(-0.83 ; 6.76)	0.70
income.source				0.15
income.level	-3.88	(-5.88 ; -1.89)	(-5.91 ; -1.85)	0.99
living.sit_1	1.49	(-0.44 ; 3.41)	(-0.41 ; 3.39)	0.56
living.sit_2				0.20
marital				0.23
CAGE	-1.68	(-3.71 ; 0.36)	(-3.75 ; 0.4)	0.60
age.drug.use	-3.37	(-5.33 ; -1.41)	(-5.32 ; -1.42)	0.95
main.drug_1				0.16
main.drug_2				0.18
poly.drug	-3.66	(-6.29 ; -1.03)	(-6.22 ; -1.1)	0.90
drug.freq.days	-1.91	(-3.88 ; 0.07)	(-4.05 ; 0.23)	0.55
drug.freq.times				0.24
inject.used.recent	-2.47	(-4.52 ; -0.42)	(-4.81 ; -0.12)	0.73
inject.used.ever				0.23
get.unused.syr				0.20
overdose				0.19
MHI5	-2.76	(-4.71 ; -0.82)	(-4.84 ; -0.68)	0.86
sex.active	1.50	(-0.58 ; 3.58)	(-0.64 ; 3.64)	0.43
sell.sex.6m				0.35
pay.sex.6m				0.41
HIV.HC.partner_1				0.37
HIV.HC.partner_2				0.32
HIV.test	3.48	(-0.23 ; 7.2)	(-0.39 ; 7.36)	0.65
HIV.status	-1.93	(-4.17 ; 0.32)	(-4.16 ; 0.31)	0.55
HIV.care_1				0.26
HIV.care_2	-5.60	(-8.16 ; -3.05)	(-8.31 ; -2.89)	1.00
TB	-3.53	(-7.05 ; -0.02)	(-6.7 ; -0.36)	0.72
HepC.treatment_1	-4.20	(-6.51 ; -1.89)	(-6.56 ; -1.83)	0.92
HepC.treatment_2	-6.33	(-10.31 ; -2.36)	(-11.28 ; -1.39)	0.89
HepC.treatment_3				0.34
HepB.aware				0.24
HepB.vaccine	2.07	(0 ; 4.14)	(-0.02 ; 4.16)	0.62
incarceration	-1.45	(-3.38 ; 0.48)	(-3.3 ; 0.4)	0.50
med.insurance	1.61	(-0.62 ; 3.84)	(-0.78 ; 4.01)	0.49
med.care.12m				0.50
detox_1	-6.05	(-9.01 ; -3.08)	(-9.17 ; -2.93)	0.96
detox_2	-4.28	(-7.47 ; -1.1)	(-7.19 ; -1.38)	0.93
drug.treat.problems_1	1.49	(-0.4 ; 3.37)	(-0.44 ; 3.42)	0.43
drug.treat.problems_2				0.35
med.care.problems	-4.34	(-8.11 ; -0.58)	(-8.02 ; -0.67)	0.79
police.confiscate.syr				0.22
IDU.disclosure.close				0.23
IDU.disclosure.doctor				0.20
IDU.stigma.internal	-4.17	(-6.19 ; -2.15)	(-6.24 ; -2.1)	0.98
IDU.stigma.conscious	1.54	(-0.35 ; 3.43)	(-0.46 ; 3.55)	0.53
Adjusted R²	**0.38**			

Table S3.5. Forward selection regression using BIC

Variables	Forward selection, BIC			
	Beta	95% CI (asymptotic)	95% CI (bootstrap)	Inclusion frequency
(Intercept)	82.52	(79.65 ; 85.39)	(79.82 ; 85.22)	1.00
sex				0.20
age.d	-4.37	(-6.11 ; -2.63)	(-6.11 ; -2.64)	0.99
education				0.36
income.source				0.02
income.level	-4.62	(-6.61 ; -2.63)	(-6.64 ; -2.6)	0.97
living.sit_1				0.10
living.sit_2				0.04
marital				0.01
CAGE				0.37
age.drug.use	-3.42	(-5.33 ; -1.5)	(-5.3 ; -1.54)	0.63
main.drug_1				0.02
main.drug_2				0.07
poly.drug				0.49
drug.freq.days				0.40
drug.freq.times				0.12
inject.used.recent	-3.22	(-5.19 ; -1.25)	(-5.33 ; -1.11)	0.57
inject.used.ever				0.07
get.unused.syr				0.02
overdose				0.04
MHI5	-3.72	(-5.63 ; -1.81)	(-5.77 ; -1.67)	0.66
sex.active				0.14
sell.sex.6m				0.01
pay.sex.6m				0.09
HIV.HC.partner_1				0.05
HIV.HC.partner_2				0.05
HIV.test				0.21
HIV.status				0.18
HIV.care_1				0.03
HIV.care_2	-7.22	(-9.32 ; -5.13)	(-9.51 ; -4.94)	1.00
TB				0.27
HepC.treatment_1	-4.49	(-6.76 ; -2.21)	(-6.92 ; -2.06)	0.59
HepC.treatment_2	-5.68	(-9.69 ; -1.66)	(-10.49 ; -0.86)	0.41
HepC.treatment_3				0.05
HepB.aware				0.12
HepB.vaccine	3.08	(1.07 ; 5.09)	(1.02 ; 5.14)	0.33
incarceration				0.12
med.insurance				0.18
med.care.12m				0.12
detox_1				0.65
detox_2				0.48
drug.treat.problems_1				0.09
drug.treat.problems_2				0.19
med.care.problems	-5.21	(-8.99 ; -1.43)	(-9.05 ; -1.37)	0.45
police.confiscate.syr				0.02
IDU.disclosure.close				0.05
IDU.disclosure.doctor				0.03
IDU.stigma.internal	-4.32	(-6.24 ; -2.39)	(-6.33 ; -2.3)	0.87
IDU.stigma.conscious				0.09
Adjusted R²	**0.34**			

Table S3.6. Forward selection regression using Likelihood Ratio Test (p=0.05)

Variables	Forward selection, LRT (p=0.05)			
	Beta	95% CI (asymptotic)	95% CI (bootstrap)	Inclusion frequency
(Intercept)	77.83	(72.7 ; 82.96)	(72.01 ; 83.65)	1.00
sex	-2.39	(-4.55 ; -0.24)	(-4.38 ; -0.4)	0.55
age.d	-5.04	(-6.82 ; -3.26)	(-6.76 ; -3.32)	1.00
education	3.56	(0.29 ; 6.83)	(-0.32 ; 7.45)	0.52
income.source				0.05
income.level	-4.49	(-6.45 ; -2.52)	(-6.48 ; -2.5)	0.99
living.sit_1				0.30
living.sit_2				0.08
marital				0.07
CAGE				0.46
age.drug.use	-3.18	(-5.11 ; -1.24)	(-5.12 ; -1.24)	0.85
main.drug_1				0.07
main.drug_2				0.10
poly.drug	-3.29	(-5.88 ; -0.7)	(-5.82 ; -0.77)	0.75
drug.freq.days	-1.89	(-3.85 ; 0.07)	(-4.04 ; 0.26)	0.47
drug.freq.times				0.16
inject.used.recent	-2.44	(-4.46 ; -0.42)	(-4.72 ; -0.16)	0.64
inject.used.ever				0.12
get.unused.syr				0.07
overdose				0.08
MHI5	-2.81	(-4.71 ; -0.9)	(-4.86 ; -0.76)	0.75
sex.active				0.29
sell.sex.6m				0.10
pay.sex.6m				0.24
HIV.HC.partner_1				0.18
HIV.HC.partner_2				0.15
HIV.test	3.76	(0.1 ; 7.42)	(-0.07 ; 7.58)	0.46
HIV.status				0.36
HIV.care_1				0.10
HIV.care_2	-7.20	(-9.3 ; -5.1)	(-9.45 ; -4.95)	1.00
TB	-3.83	(-7.33 ; -0.32)	(-6.95 ; -0.71)	0.52
HepC.treatment_1	-4.10	(-6.39 ; -1.8)	(-6.49 ; -1.7)	0.81
HepC.treatment_2	-6.40	(-10.37 ; -2.43)	(-11.26 ; -1.54)	0.70
HepC.treatment_3				0.14
HepB.aware				0.15
HepB.vaccine	2.45	(0.43 ; 4.46)	(0.4 ; 4.49)	0.48
incarceration				0.30
med.insurance				0.32
med.care.12m				0.29
detox_1	-5.48	(-8.35 ; -2.6)	(-8.49 ; -2.47)	0.87
detox_2	-4.04	(-7.2 ; -0.88)	(-6.94 ; -1.14)	0.76
drug.treat.problems_1				0.24
drug.treat.problems_2				0.27
med.care.problems	-5.21	(-8.94 ; -1.48)	(-8.99 ; -1.44)	0.64
police.confiscate.syr				0.07
IDU.disclosure.close				0.11
IDU.disclosure.doctor				0.08
IDU.stigma.internal	-3.44	(-5.41 ; -1.47)	(-5.45 ; -1.44)	0.94
IDU.stigma.conscious				0.28
Adjusted R²	**0.37**			