

Path model runs for males and females

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Outline

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3. Separate dep vars
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6. Associated data file: `chwide6apr2012old.dta`
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8. Associated output files: `FemalePathcandidatesAutoMetPass3.smcl`, `malePath-candidatesAutoMetpass3.smcl`
9. This file: `VarSectionForPathModels.pdf`

1 Introduction

1.1 Primary Objectives

These models were run originally with AutoMetrics. They were designed to select variables to form optimal regression models explaining the perception of respondents of Chernobyl related health risk. The regressions successively included variables from wave one, then waves one and two, and finally waves one through three.

In this set of models, we used only radhlw3 as the dependent variable. In a second set of male and female models, we used radhlw1, radhlw2, and radhlw3 as dependent variables. Those follow the first set in this document.

Because extreme multicollinearity lengthens processing time and worsens model development, variables which contribute to multicollinearity were deleted from the explanatory variable list. These variables included the raion dummy variables and new duplicates of the psychological health scale variables formed from the survival data

Models were rerun in Stata to obtain an R^2 and adjusted R^2 . Another reason they were rerun in Stata is so we could format the output to facilitate objective achievement of forming optimal path models. Before presenting the models, we will provide a variable label list to indicate which variable names represent which concepts.

2 Regression models with radhlw3 as dependent variable

2.1 female models

The following female models were run first with AutoMetrics and then run with Stata so we would format the output. The variables that were selected by AutoMetrics were for waves 1 2 and 3 include those listed below.

variable name	type	format	label	variable label
airw1	byte	%8.0g		consider hazardous (in percent) - air and water pollution in 1986
smokw1	int	%8.0g		number of cigarettes per week in 1976-1986
beerw2	byte	%8.0g		nuber of beers per week in 1987-1996
defnw2	byte	%8.0g		* consider hazardous (in percent) - deficiencies in essential nutrition in 1996
shjobw3	byte	%8.0g		* Percentage of strains and hassles related to job NOW
airw3	byte	%8.0g		consider hazardous (in percent) - air and water pollution NOW
polprw3	byte	%8.0g		consider hazardous (in percent) - political problems NOW
trrepw3	byte	%8.0g		* level of trust in medical/scientific reports about chornobyl in time period 1997
radchw3	byte	%8.0g		believed % of polution related to chornobyl NOW
dauthw3	byte	%8.0g		level of danger by authorities (in percent) NOW
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
kzchorn	byte	%8.0g		* in k/z most cases of cancer in humans are known to be caused by radiation from

chsize	byte	%8.0g		* the radioactive fallout from chornobyl affected more people than the radioactive
WHPpain	float	%9.0g		Wtd Health Profile Pain Pt 1 subscale
variable name	type	format	label	variable label
icdx1nr14	byte	%8.0g		icdx1nr==535 gastritus & duodenitis
occ4w1	byte	%15.0g	LABJ	precision prod mechan craft construction in 1986
childw1	byte	%8.0g		number of children in 1986
shhlw1	byte	%8.0g		Percentage of strains and hassles related to health in 1986
smokw1	int	%8.0g		number of cigarettes per week in 1976-1986
CSsocspt	byte	%9.0g		Coping social support subscale
lBSItotal	float	%9.0g		Ln(bsItotal)
BSIphanx	byte	%9.0g		Basic symptom inventory phobic anxiety subscale
WHPsociso	float	%9.0g		Wtd Health Profile Social Isolation Pt 1 subscale
HP2hmcare	byte	%9.0g	hp2fmt	Hlth profile Pt2: Home cleaning, cooking and repairs
HP2probsoc	byte	%9.0g	hp2fmt	Hlth profile Pt2: Hlth causing probs with social life
beerw1	byte	%8.0g		nuber of beers per week in 1976-1986
liqw1	byte	%8.0g		number of spirits per week in 1976-1986
mhoutw1	byte	%8.0g		number of medical visits for a mental health condition per year 1976-1986
goferw1	byte	%8.0g		level of fear in percent from going outdoors in 1976-1986
fdferw1	byte	%8.0g		* level of fear in percent from consuming foods contaminated with radiation in 197
injothr	byte	%9.0g	inj	Was anyone u know injured by Chornobyl accident?
icdx1nr10	byte	%8.0g		icdx1nr==486 pneumonia
icdx1nr14	byte	%8.0g		icdx1nr==535 gastritus & duodenitis
icdx3nr2	byte	%8.0g		icdx3nr==thyrotoxicosis
ecprw1	byte	%8.0g		consider hazardous (in percent) - economic problems in 1986
polprw1	byte	%8.0g		consider hazardous (in percent) - political problems in 1986
radw1	byte	%8.0g		believed % of the radioactively contaminated area in 1986
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
healthef	byte	%8.0g		* a person exposed to any radiation likely to suffer from (% of agreement)
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
chsize	byte	%8.0g		* the radioactive fallout from

chornobyl affected more people
than the radioactive

Table 1: Female AutoMetrics Regressions for rahdlw3 as dependent variable

	radhlw3w1p3 b/se/p	fradhlw3w2~3 b/se/p	fradhlw3w3~3 b/se/p
age	-.0519748 .197055 .7922026		
occ4w1	18.78242** 6.231123 .0028646		
childw1	1.708567 2.030402 .4009464		
shhlw1	.0893329* .0433028 .0402371		
smokw1	.2417048** .0863174 .0055415		.1163746 .0861344 .1779415
CSsocspt	.8208942** .2481855 .001092		
lBSItotal	-6.696292 8.101661 .4093583		
BSIphanx	1.227881# .6277602 .0516792		
WHPsociso	.2239297** .0832289 .0076573		
HP2hmcare	-14.16171*** 3.474608 .0000632	-11.87843*** 3.277128 .0003538	

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Table 1 continued: Female AutoMet Regressions for rahdlw3 as dep var

	wave 1 radhlw3w1p3 b/se/p	waves 1 & 2 fradhlw3w2~3 b/se/p	waves 1 2 & 3 fradhlw3w3~3 b/se/p
HP2probsoc	17.76854*** 4.409342 .0000759	14.04801*** 4.14531 .0008212	
beerw1	.5376221* .2175558 .0141923		
liqw1	3.641821** 1.275861 .0047055		
mhoutw1	5.103917** 1.767329 .0042478		
goferw1	-.1855694** .0568556 .0012663		
fdferw1	.1371401** .0524126 .0094709		
injothr	19.49397*** 3.771423 5.11e-07		
icdx1nr10	-77.121** 23.98984 .001493	-31.50847 21.96253 .1527005	
icdx1nr14	-20.68213* 8.313892 .0135686	-19.68091* 8.366774 .0194747	-21.98472* 8.55507 .010781
icdx3nr2	-29.72314** 9.041441 .0011694		
ecprw1	.0178597 .0504657 .7237401		
polprw1	.213913*** .0452141 3.90e-06		
radw1	-.1855987*** .0389341 3.32e-06		
radtlw1	.1500814*** .0401903 .0002374		

Continued on the next page ...

Table 1 continued: Female AutoMet Regressions for rahdlw3 as dependent variable

	wave 1 radhlw3w1p3 b/se/p	waves 1 and 2 fradhlw3w2~3 b/se/p	waves 1 2 and 3 fradhlw3w3~3 b/se/p
healthef	.2592128*** .05006 4.89e-07		
dafter	.0493589 .3055503 .8718091	.3854584 .2991699 .1988487	.5232856# .3092162 .0918871
chsize	.1866962*** .0523065 .0004357		.1101217# .0563708 .0519194
emplw12		12.2082*** 3.119261 .0001186	
emplw23		12.41061** 4.323712 .0044692	
dvcew1		14.97883 9.805677 .1279478	
suchrw1		.4557119** .1523324 .0030675	
defnw1		.1511518** .0463286 .0012659	
sepaw2		16.61479# 8.988432 .0657758	
polprw2		.1111823* .0437212 .0116255	
defnw2		.2134155*** .0486768 .0000175	.3471843*** .0505964 5.75e-11
trgovw2		-.0932683* .0451284 .0398413	
radtlw2		.1785785*** .0422577 .0000339	
kzchorn		.2831592*** .0556586 7.36e-07	.2104216*** .0596947 .0005071
MiPTSD		.4694126*** .1281353 .0003068	

Continued on the next page ...

Table 1 continued: Female AutoMetrics Regressions for rahdlw3 as dependent variable

	wave 1 radhlw3w1p3 b/se/p	waves 1 & 2 fradhlw3w2~3 b/se/p	waves 1 2 & 3 fradhlw3w3-3 b/se/p
icdx3nr7		32.62334 21.72788 .1345645	
icdx4nr3		-76.37301*** 21.659 .0005057	
airw1			.178657** .0627134 .0047695
beerw2			.8331875* .4047766 .0406327
shjobw3			-.0167494 .0409873 .6831613
airw3			.1949227*** .0464719 .0000385
polprw3			-.207078** .0709922 .0038703
trrepw3			-.0893913* .0434133 .0405663
radchw3			.1546334** .0466292 .0010538
dauthw3			.1583896*** .0418573 .0001949
WHPpain			.2842255*** .0615885 6.41e-06
_cons	-13.88561 32.95378 .6738811	-33.9352*** 7.37406 6.81e-06	-15.80484* 6.334786 .0132715
r2	0.653	0.628	0.603
r2_a	0.612	0.598	0.579
bic	2426	2396	2376
N	258	258	256

p<.1, * p<.05, ** p<.01, *** p<.001, *** p<.0001

2.2 Male path models using only radhlw3 as the dependent variable

The male models that use radhlw3 solely as the dependent variable, regardless of the wave follow. First, we provide the variable lists for those models.

Wave 1 male models contain these variables				
variable name	storage type	display format	value label	variable label
shfincw1	byte	%8.0g		Percentage of strains and hassles related to finances in 1986
shhousw1	byte	%8.0g		Percentage of strains and hassles related to housing in 1986
ecprw1	byte	%8.0g		consider hazardous (in percent) - economic problems in 1986
polprw1	byte	%8.0g		consider hazardous (in percent) - political problems in 1986
BSIhos	byte	%9.0g		Basic symptom inventory hostility subscale
HP2inthob	byte	%9.0g	hp2fmt	Hlth profile Pt2: Hlth probs interfering with interests & hobbies
CSprbslv	byte	%9.0g		Coping Problem Solving Subscale
dafter	int	%8.0g		* how many days lapsed after Chernobyl accident before you heard about the acciden
cloud	byte	%8.0g		* radioactive fallout is only harmful when visible (% of agreement)
healthef	byte	%8.0g		* a person exposed to any radiation likely to suffer from (% of agreement)
carcin	byte	%8.0g		* a person exposed to carcinogen is likely to get cancer (% of agreement)
kzchorn	byte	%8.0g		* in k/z most cases of cancer in humans are known to be caused by radiation from
trrepw1	byte	%8.0g		* level of trust in medical/scientific reports about chornobyl in time period 197
icdx1nr2	byte	%8.0g		icdx1nr==goiter nec
icdx1nr13	byte	%8.0g		icdx1nr==532 duodenal ulcer
icdx3nr2	byte	%8.0g		icdx3nr==thyrotoxicosis
icdx3nr3	byte	%8.0g		icdx3nr==diabetes militus
icdx3nr8	byte	%8.0g		icdx3nr==ac bronchitis/brnchial
icdx4nr10	byte	%8.0g		icdx4nr==varicose veins in legs
icdx4nr12	byte	%8.0g		icdx4nr==gastritis/duodenitis
icdx5nr11	byte	%8.0g		icdx5nr==gastritis/duodenitis

Wave 1 and 2 male models contain the following variables				
variable name	type	format	label	variable label
emplw12	byte	%8.0g		emplw1==1. full time
emplw13	byte	%8.0g		emplw1==2. part time
emplw14	byte	%8.0g		emplw1==3. voluntary
emplw15	byte	%8.0g		emplw1==4. retired
emplw16	byte	%8.0g		emplw1==5. unemployed
emplw24	byte	%8.0g		emplw2==3. voluntary
shjobw1	byte	%8.0g		Percentage of strains and hassles related to job in 1986
trgovw1	byte	%8.0g		level of trust in government reports about chornobyl in time period 1976-1986
shfincw1	byte	%8.0g		Percentage of strains and hassles related to finances in 1986
shhousw2	byte	%8.0g		Percentage of strains and hassles related to housing in 1996
polprw2	byte	%8.0g		consider hazardous (in percent) - political problems in 1996
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
cloud	byte	%8.0g		* radioactive fallout is only harmful when visible (% of agreement)
HP2pbfhm	byte	%9.0g	hp2fmt	Hlth profile Pt2: Hlth causing probs with family members at home
BSIsoma	byte	%9.0g		Basic symptom inventory obsessive compulsive subscale
kzchorn	byte	%8.0g		* in k/z most cases of cancer in humans are known to be caused by radiation from
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
icdx1nr2	byte	%8.0g		icdx1nr==goiter nec
icdx2nr2	byte	%8.0g		icdx2nr==242 thyrotoxicosis
icdx3nr2	byte	%8.0g		icdx3nr==thyrotoxicosis
icdx3nr3	byte	%8.0g		icdx3nr==diabetes militus
icdx5nr7	byte	%8.0g		icdx5nr==angina pectoris
icdx5nr11	byte	%8.0g		icdx5nr==gastritis/duodenitis

Wave 1 2 and 3 male models contain the following variables

variable name	type	format	label	variable label
radhlw3	byte	%8.0g		Observed
shjobw1	byte	%8.0g		Percentage of strains and hassles related to job in 1986
phlthw1	byte	%8.0g		level of general physical health in 1986
liqw1	byte	%8.0g		number of spirits per week in 1976-1986
trgovw1	byte	%8.0g		level of trust in government reports about chornobyl in time period 1976-1986
airw1	byte	%8.0g		consider hazardous (in percent) - air and water pollution in 1986
radw1	byte	%8.0g		believed % of the radioactively contaminated area in 1986
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
saferad	byte	%8.0g		there is no safe level of radiation (% of agreement)
BSIposymp	int	%9.0g		Brief Symptom inventory positive symptom total subscale
BSIglobsi	float	%9.0g		Brief Symptom Inventory Global Severity (mean) Index
icdx1nr9	byte	%8.0g		icdx1nr==454 chronic t & a dis

The male regression model output begins on the next page

Key variables for male path analysis using radhlw3 as only dependent variable

Table 2: Male AutoMetrics Regressions for dv=radhlw3

	wave 1 mradhlw3w1p3 b/se/p	waves 1 & 2 mradhlw3w2p3 b/se/p	waves 1 2 & 3 mradhlw3w3p3 b/se/p
age	.2615395* .1015156 .0102592	-.0164474 .124926 .8953062	.2331328* .1128584 .0393496
shfincw1	-.116853*** .0333043 .0004894	-.0961808** .0339388 .0047756	
shhousw1	.1281516*** .0342753 .0002053		
ecprw1	.1686124*** .037662 9.31e-06		
polprw1	.1900894*** .0347849 7.20e-08		
BSIhos	1.873398*** .3611831 3.07e-07		
HP2inthob	11.40822*** 3.302998 .0005976		
CSprbslv	-.3520205 .2394103 .1420666		
dafter	.0715331* .0296062 .0160281	.0581785* .0283569 .0407018	.053563# .0315795 .0904581
cloud	.0910305** .0331954 .0063116	.09896** .0318867 .0020162	
healthef	.3292044 .280036 .2403002		
carcin	-.192368 .2779451 .4891779		
kzchorn	.3581543*** .0518906 1.49e-11	.3900795*** .0437304 7.86e-18	
trrepw1	-.0286996 .0324517 .3768996		
icdx1nr2	12.65681 10.45149 .2264426	8.467972 9.231716 .359425	
icdx1nr13	-1.178204 9.372871 .900015		

Male models continued on the next page ...

icdx3nr2	-10.53523	-7.479042	
	9.467502	9.160339	
	.2663171	.4146101	
icdx3nr3	11.58919	8.944112	
	12.71557	12.12751	
	.3624968	.461146	
icdx3nr8	2.110961		
	9.671748		
	.8273116		
icdx4nr10	-29.26849*		
	12.89305		
	.0236092		
icdx4nr12	-2.484778		
	12.91723		
	.847534		
icdx5nr11	-27.14816	-31.50021#	
	17.57207	17.03854	
	.1229628	.0650574	
emplw12		40.31234*	
		17.09979	
		.0187678	
emplw13		33.00796#	
		17.42579	
		.0587507	
emplw15		37.09327#	
		22.12607	
		.0942486	
emplw16		41.95824*	
		17.32162	
		.0157619	
shjobw1		.1346157***	.1457929***
		.0379114	.0405425
		.0004188	.0003538
trgovw1		.0059052	-.0108591
		.0310364	.0331469
		.8491736	.7433417
shhousw2		.0701799*	
		.0303918	
		.0213235	
polprw2		.241816***	
		.031028	
		3.55e-14	
HP2pbfhm		6.152398#	
		3.661677	
		.0935141	
BSIsoma		1.309056***	
		.2347959	
		3.97e-08	
radtlw1		.1218912***	.2257843***
		.0299412	.033265
		.0000541	3.12e-11

Male models continued on the next page ...

icdx2nr2		-9.895316	
		7.374665	
		.1802446	
icdx5nr7		44.89852**	
		16.96237	
		.0083675	
phlthw1			.0526506
			.0750374
			.4832059
liqw1			.6461775
			.541519
			.2333074
airw1			.1996866***
			.0355537
			3.18e-08
radw1			-.1406225***
			.0319667
			.0000132
saferad			.169335***
			.0307362
			5.67e-08
BSIposymp			1.508993#
			.8126671
			.0638981
BSIglobsi			-56.44501
			40.53598
			.1643751
icdx1nr9			14.62748
			9.733945
			.1335148
_cons	-22.285**	-61.01472***	-30.82091**
	7.296347	18.30045	9.85862
	.0023715	.0009167	.0018691
r2	0.517	0.549	0.430
r2_a	0.497	0.530	0.416
bic	5152	5123	5104
N	544	545	535
# p<.1, * p<.05, ** p<.01, *** p<.001, *** p<.0001			

3 Cumulative models with different dependent variables

In the next series of models, the dependent variable becomes successively the self-perceived Chernobyl health risk to oneself during wave I, during wave II, and during Wave III. Because the models are cumulative, Wave 2 models can contains variables from waves one and two, just as wave three models can contain variables from all previous waves along with those of wave three.

We will again address analyze male and female models for each of the foregoing waves and precede the regression analysis output with variable descriptions

of the variables used in the models. The variable selection was performed with the AutoMetrics software developed by Sir David Hendry and Jurgen Doornik, at Oxford University, U.K..

3.1 Male path model variable selection for successive waves of Chernobyl perceived health risk to oneself

In the male model that follows, the explanatory variables in the radhlw1 regression are

Wave 1 explanatory variables for male model with radhlw1 as dependent variable

Radhlw1 explanatory variables:

variable name	type	format	label	variable label
shfincw1	byte	%8.0g		Percentage of strains and hassles related to finances in 1986
shhousw1	byte	%8.0g		Percentage of strains and hassles related to housing in 1986
ecprw1	byte	%8.0g		consider hazardous (in percent) - economic problems in 1986
polprw1	byte	%8.0g		consider hazardous (in percent) - political problems in 1986
BSIhos	byte	%9.0g		Basic symptom inventory hostility subscale
HP2inthob	byte	%9.0g	hp2fmt	Hlth profile Pt2: Hlth probs interfering with interests & hobbies
CSprbslv	byte	%9.0g		Coping Problem Solving Subscale
dafter	int	%8.0g		* how many days lapsed after Chernobyl accident before you heard about the acciden
cloud	byte	%8.0g		* radioactive fallout is only harmful when visible (% of agreement)
healthef	byte	%8.0g		* a person exposed to any radiation likely to suffer from (% of agreement)
carcin	byte	%8.0g		* a person exposed to carcinogen is likely to get cancer (% of agreement)
kzchorn	byte	%8.0g		* in k/z most cases of cancer in humans are known to be caused by radiation from
trrepw1	byte	%8.0g		* level of trust in medical/scientific reports about chornobyl in time period 197
icdx1nr2	byte	%8.0g		icdx1nr==goiter nec
icdx1nr13	byte	%8.0g		icdx1nr==532 duodenal ulcer
icdx3nr2	byte	%8.0g		icdx3nr==thyrotoxicosis
icdx3nr3	byte	%8.0g		icdx3nr==diabetes militus
icdx3nr8	byte	%8.0g		icdx3nr==ac bronchitis/brnchial
icdx4nr10	byte	%8.0g		icdx4nr==varicose veins in legs
icdx4nr12	byte	%8.0g		icdx4nr==gastritis/duodenitis
icdx5nr11	byte	%8.0g		icdx5nr==gastritis/duodenitis

Wave 1 and 2 male model explanatory variables with Radhlw2 as dependent variable
Discovered by AutoMetrics in pass three

variable name	type	format	label	variable label
emplw12	byte	%8.0g		emplw1==1. full time
emplw13	byte	%8.0g		emplw1==2. part time
emplw14	byte	%8.0g		emplw1==3. voluntary
emplw15	byte	%8.0g		emplw1==4. retired
emplw16	byte	%8.0g		emplw1==5. unemployed
emplw24	byte	%8.0g		emplw2==3. voluntary
shjobw1	byte	%8.0g		Percentage of strains and hassles related to job in 1986
trgovw1	byte	%8.0g		level of trust in government reports about chornobyl in time period 1976-1986
shfincw1	byte	%8.0g		Percentage of strains and hassles related to finances in 1986
shhousw2	byte	%8.0g		Percentage of strains and hassles related to housing in 1996
polprw2	byte	%8.0g		consider hazardous (in percent) - political problems in 1996
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
cloud	byte	%8.0g		* radioactive fallout is only harmful when visible (% of agreement)
HP2pbfhm	byte	%9.0g	hp2fmt	Hlth profile Pt2: Hlth causing probs with family members at home
BSIsoma	byte	%9.0g		Basic symptom inventory obsessive compulsive subscale
kzchorn	byte	%8.0g		* in k/z most cases of cancer in humans are known to be caused by radiation from
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
icdx1nr2	byte	%8.0g		icdx1nr==goiter nec
icdx2nr2	byte	%8.0g		icdx2nr==242 thyrotoxicosis
icdx3nr2	byte	%8.0g		icdx3nr==thyrotoxicosis
icdx3nr3	byte	%8.0g		icdx3nr==diabetes militus
icdx5nr7	byte	%8.0g		icdx5nr==angina pectoris
icdx5nr11	byte	%8.0g		icdx5nr==gastritis/duodenitis

Wave 1 2 and 3 Male model with Radhlw3 as dependent variable
Variable selection by AutoMetrics in pass 3

variable name	type	format	label	variable label
radhlw3	byte	%8.0g		Observed
shjobw1	byte	%8.0g		Percentage of strains and hassles related to job in 1986
phlthw1	byte	%8.0g		level of general physical health in 1986
liqw1	byte	%8.0g		number of spirits per week in 1976-1986
trgovw1	byte	%8.0g		level of trust in government reports about chornobyl in time period 1976-1986
airw1	byte	%8.0g		consider hazardous (in percent) - air and water pollution in 1986
radw1	byte	%8.0g		believed % of the radioactively contaminated area in 1986
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
saferad	byte	%8.0g		there is no safe level of radiation (% of agreement)
BSIposymp	int	%9.0g		Brief Symptom inventory positive symptom total subscale
BSIglobsi	float	%9.0g		Brief Symptom Inventory Global Severity (mean) Index
icdx1nr9	byte	%8.0g		icdx1nr==454 chronic t & a dis

3.2 AutoMetrics Male Path Model Variable selection

Table 3: Male AutoMetrics Regression output for radhdlw1 radhdlw2 rahdlw3 models
Variable selection by AutoMetrics for male path model

	radhdlw1 wave one malew3p2 b/se/p	radhdlw2 waves 1 & 2 malew2p2 b/se/p	radhdlw3 waves 1,2, & 3 malew1p2 b/se/p
age	.0566114 .1313184 .6667567		.1954586# .1174906 .0967915
ncontw2	-6.728452* 2.839166 .0185334		
shhlw1	.2054051*** .0503957 .0000612		
shfinw1	-.2155099*** .0443173 2.02e-06		
CSprbslv	-.5197979# .3064582 .0910691		
BSIhos	2.970711*** .5076256 1.47e-08		
liqw1	.5287569 .5085419 .2994328		.6665731 .5637453 .2375858
radtlw2	.1576814*** .0418603 .000205	.261576*** .0411231 7.48e-10	
radw3	.0193635 .0491846 .6941357		
hospw1	.0603104 .2152914 .7796004	.2712129# .1556033 .0823624	
airw2	.1997517*** .0536662 .0002427		
dafter	.0530966# .0271315 .0514289	.0004365 .0295182 .9882129	-.0406029 .0328757 .2173701

Table 2 is continued on the next page...

Table 3 continued: Male AutoMetrics Regression output for radhdlw1 radhlw2 rahdlw3 models. Variable selection by AutoMetrics for male path model

	radhlw1 wave one malew3p2 b/se/p	radhlw2 waves 1 & 2 malew2p2 b/se/p	radhlw3 waves 1,2, & 3 malew1p2 b/se/p
kzchorn	.3452086*** .0650618 2.42e-07		
trgovw3	.0507975 .0466688 .2774081		
icdx1nr9	9.99107 11.44942 .3836809		13.00419 10.13347 .1999606
HP2inthob	15.05557** 4.751635 .0017176		
polprw1	.1831565*** .0460252 .0000899	.2479586*** .0396791 1.41e-09	
inclw2		13.57961* 5.408847 .0125775	
CSavoid		.5370359 .3935911 .1734482	
BSIsoma		2.253453*** .2845962 4.72e-14	
woman		.3360505*** .0478713 1.49e-11	
icdx1nr4		-11.06584 11.29881 .328181	
mincumdosew2		.7034406 .96309 .4657159	
shjobw1			.1418987*** .0422066 .0008306
phlthw1			-.1795064* .0781173 .0219623
BSIposymp			3.037059*** .8460225 .0003622
BSIglobsi			-143.5411*** 42.19975 .0007217

Table 3 is continued on the next page...

Table 3 continued: Male AutoMetrics Regression output for radhdlw1 radhlw2 rahdlw3 models. Variable selection by AutoMetrics for male path model

	radhlw1 wave one malew3p2 b/se/p	radhlw2 waves 1 & 2 malew2p2 b/se/p	radhlw3 waves 1,2, & 3 malew1p2 b/se/p
airw1			.2668613*** .037013 1.98e-12
radw1			-.0449272 .0332787 .1775928
saferad			.1746385*** .0319977 7.47e-08
radtlw1			.3420597*** .0346303 3.32e-21
trgovw1			-.0952855** .0345074 .0059602
_cons	-8.017484 11.27068 .4775079	-39.49262*** 9.189701 .0000234	-3.983267 10.26326 .6980937
r2	0.641	0.527	0.441
r2_a	0.618	0.511	0.427
bic	2561	2931	5147
N	275	311	535

p<.1, * p<.05, ** p<.01, *** p<.001, **** p<.0001

3.3 Female path model variable selection by AutoMetrics

We begin again with a list of variable labels for the explanatory variables used in the Table 4 models. For the first wave one female model with radhlw1 as a dependent variable, the explanatory variables are contained in the list that begins on the next page.

Wave 1 females regression model with radhlw1 as a dependent variable

variable name	type	format	label	variable label
smokw1	int	%8.0g		number of cigarettes per week in 1976-1986
suchrw1	byte	%8.0g		Level of support (in percent) from Chernobyl survivor benefits in 1986
icdx1nr5	byte	%8.0g		icdx1nr==401 hypertension
icdx4nr10	byte	%8.0g		icdx4nr==varicose veins in legs
radchwl	byte	%8.0g		believed % of pollution related to chornobyl in 1986
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
chsize	byte	%8.0g		* the radioactive fallout from chornobyl affected more people than the radioactive
ecprw1	byte	%8.0g		consider hazardous (in percent) - economic problems in 1986
trgovw1	byte	%8.0g		level of trust in government reports about chornobyl in time period 1976-1986

Waves 1 and 2 female regression model with radhlw2 as a dependent variable contain the following explanatory variables:

variable name	type	format	label	variable label
emplw1	byte	%15.0g	LABI	mode of employment in 1986
beerw2	byte	%8.0g		nuber of beers per week in 1987-1996
lBSItotal	float	%9.0g		Ln(bsItotal)
icdx1nr8	byte	%8.0g		icdx1nr==466 ac bronchitis/brnchial
MiPTSD	byte	%9.0g		Mississippi post-traumatic stress disorder scale
radw1	byte	%8.0g		believed % of the radioactively contaminated area in 1986
radtlw2	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1996
BSIphanx	byte	%9.0g		Basic symptom inventory phobic anxiety subscale
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
toxic	byte	%8.0g		all radioactive materials remain toxic for thousands of years (% of agreement)
ecprw1	byte	%8.0g		consider hazardous (in percent) - economic problems in 1986
polprw1	byte	%8.0g		consider hazardous (in percent) - political problems in 1986

List is continued on the next page ...

trrepw1	byte	%8.0g	* level of trust in medical/scientific reports about chornobyl in time period 1986
defnw2	byte	%8.0g	* consider hazardous (in percent) - deficiencies in essential nutrition in 1996

Waves 1 2 and 3 female regression with radhlw3 as dependent variable
Path model variable selection by AutoMetrics

variable name	type	format	label	variable label
movew2	byte	%8.0g		Total number of moves experienced in time period 1987-1996
sufamw1	byte	%8.0g		Level of support (in percent) from family in 1986
beerw2	byte	%8.0g		nuber of beers per week in 1987-1996
WHPpain	float	%9.0g		Wtd Health Profile Pain Pt 1 subscale
icdx1nr19	byte	%8.0g		icdx1nr==misc tiny categs < 10 cases ea
airw1	byte	%8.0g		consider hazardous (in percent) - air and water pollution in 1986
airw3	byte	%8.0g		consider hazardous (in percent) - air and water pollution NOW
radchw3	byte	%8.0g		believed % of polution related to chornobyl NOW
dafter	int	%8.0g		* how many days lapsed after Chornobyl accident before you heard about the acciden
neiw3	byte	%8.0g		level of danger by neighbors (in percent) NOW
kzchorn	byte	%8.0g		* in k/z most cases of cancer in humans are known to be caused by radiation from
polprw3	byte	%8.0g		consider hazardous (in percent) - political problems NOW
trrepw3	byte	%8.0g		* level of trust in medical/scientific reports about chornobyl in time period 1997
defnw2	byte	%8.0g		* consider hazardous (in percent) - deficiencies in essential nutrition in 1996

Table 4 Female Path model variable selection regression begins on the next
page ...

Key variables for female path analysis

Table 4: AutoMetrics regression variable and model selection for female models with radhdlw1 radhlw2 rahdlw3 respectively as dependent variables

Female AutoMet Regressions for radhdlw1 radhlw2 rahdlw3 models

Dependent var:	radhdlw1 b/se/p	radhlw2 b/se/p	radhlw3 b/se/p
age	.1713963 .1563823 .2741513	-.0980536 .1561129 .5305421	.0211452 .1395267 .8796688
smokw1	.169483 .1045735 .1063667		
suchrw1	.6886559*** .1853991 .0002522		
icdx1nr5	9.38536 6.025916 .1206428		
icdx4nr10	-61.58571** 19.26842 .0015755		
radchw1	.3405613*** .0473228 7.51e-12		
dafter	.0662625 .3660962 .8565191	.9802801** .3731548 .009171	.3757798 .30769 .2231633
chsize	.3323184*** .0620993 2.00e-07		
ecprw1	.3032926*** .053269 3.55e-08	.1261349* .0512925 .0146372	
trgovw1	-.1555513** .0476726 .0012598		
emplw1		-3.52976*** .9842835 .0004069	
beerw2		.2821303 .4006287 .4819821	.5501714 .3998878 .1701511
lBSItotal		-2.982369 7.855914 .7045546	
icdx1nr8		14.21877* 6.996288 .0432261	
MiPTSD		.6238824*** .1606311 .0001331	
radw1		-.1153083** .0404846 .0047796	

Table 4 is continued on the next page ...

Female AutoMet Regressions for radhdlw1 radhdlw2 rahdlw3 models

Dependent var:	radhdlw1 b/se/p	radhdlw2 b/se/p	radhdlw3 b/se/p
radtlw2		.2929952*** .0424498 4.57e-11	
BSIphanx		1.650752** .6072138 .0070371	
toxic		.1490237*** .0409194 .0003318	
polprw1		.1929491*** .0513866 .0002179	
trrepw1		-.0548292 .039291 .1641717	
defnw2		.1546255** .0550932 .0054193	.275699*** .0494491 6.58e-08
Fastivskiy		-53.56006** 19.14044 .0055568	
Pereyaslav-y		39.74592*** 11.40151 .0005832	
Zhitomirskiy		-20.78707*** 5.923279 .0005366	
movev2			-10.60897** 3.968385 .0080204
sufamw1			.6677218** .214007 .0020273
WHPpain			.2090233** .0670761 .0020531
icdx1nr19			5.387777# 2.774738 .0533311
airw1			.2165795*** .0617907 .0005438
airw3			.1639065*** .0464088 .0004941
radchw3			.1747052*** .0458338 .0001751
neiw3			.1872588*** .0470455 .000091

Table 4 is continued on the next page ...

Female AutoMet Regressions for radhdlw1 radhdlw2 rahdlw3 models

Dependent var:	radhdlw1 b/se/p	radhdlw2 b/se/p	radhdlw3 b/se/p
kzchorn			.2392839*** .0567252 .0000348
polprw3			-.2579131*** .0713843 .000368
trrepw3			-.0861393* .0430554 .0465461
_cons	-6.662222 8.842029 .4518897	-13.67268 28.18764 .6280784	-10.29409 8.414058 .2223537
r2	0.452	0.596	0.606
r2_a	0.430	0.565	0.582
bic	2454	2404	2391
N	256	258	258

p<.1, * p<.05, ** p<.01, *** p<.001, *** p<.0001