

# Unequal health, health care needs and SES over the life course: the role of health insurance in a national health system

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# Background

- ❑ **Social inequalities in health**
  - ❑ Extensively described in the literature (relationship with income, education, SES)
  - ❑ Increasingly assessed over the life course (cohort studies and longitudinal panel surveys)
- ❑ **Governmental policies as a social determinant of health**
  - ❑ Health care system
  - ❑ Example: health insurance
    - ❑ Universal health coverage: reduce disparities, increase overall population health status
    - ❑ Private health insurance: increase the gap

# Background

## □ Canadian context

- Canada Health Act: National health system with universal public coverage of all “services provided by all hospitals, medical practitioners or dentist”
- But:
  - Coverage limited to hospital and physicians
  - Provincial variations (means, needs tested) in coverage for:
    - Medication
    - Dental and eye care
    - Hospital charges (room)
  - Social inequalities in supplementary private health insurance for services not covered by the public system

# Objective

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- ❑ **Assess the contribution of health insurance to social inequalities in health through health care utilization:**
  - ❑ **Pathway through unmet health care needs because of cost**

## □ Study sample

- National Population Health Survey (NPHS), *Statistics Canada*

- Nationally representative longitudinal household survey

- Inclusion in 1994

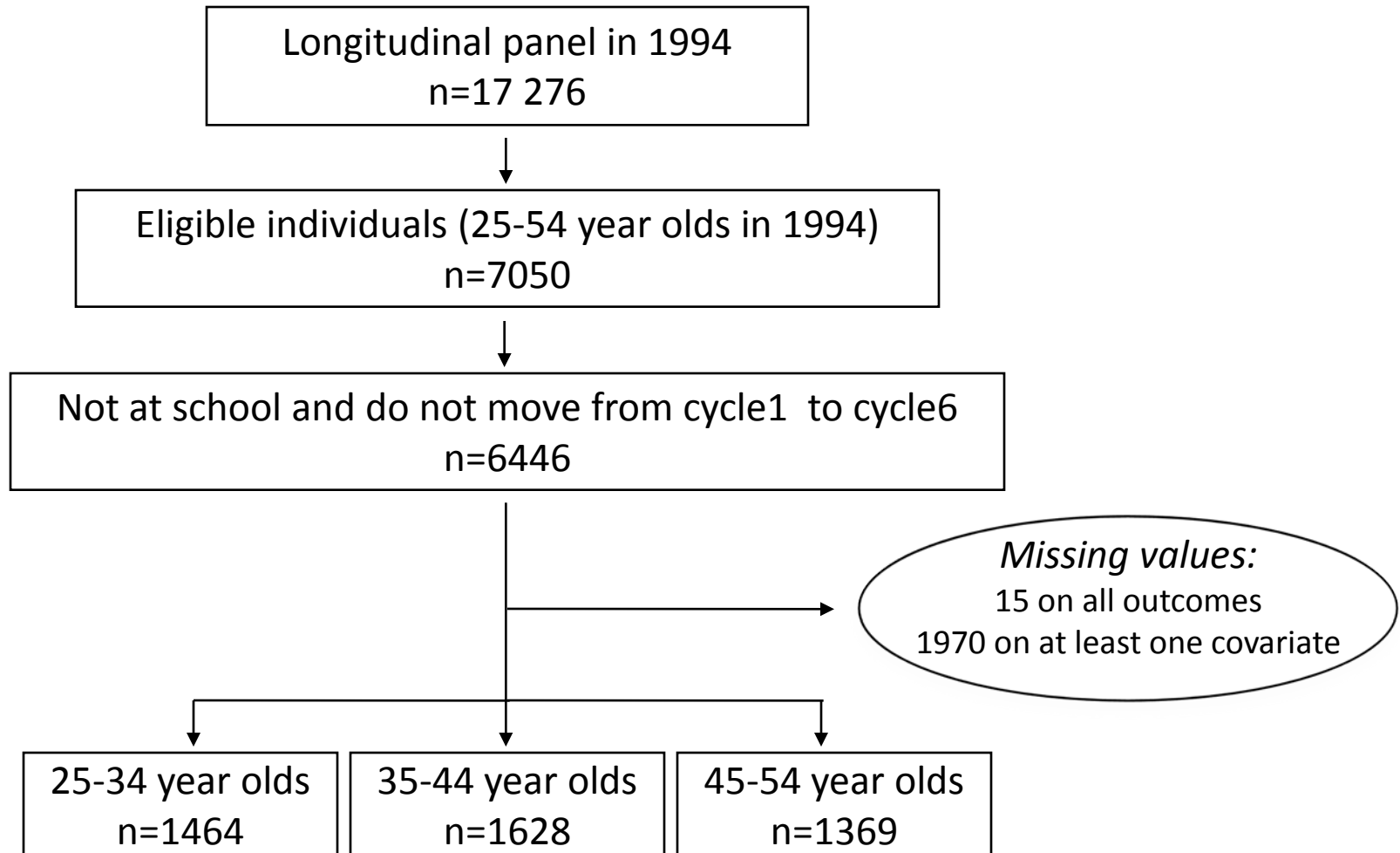
- n=17 276

- Biennial interviews from 1994/95 to 2006-07

- 6 on 7 cycles used

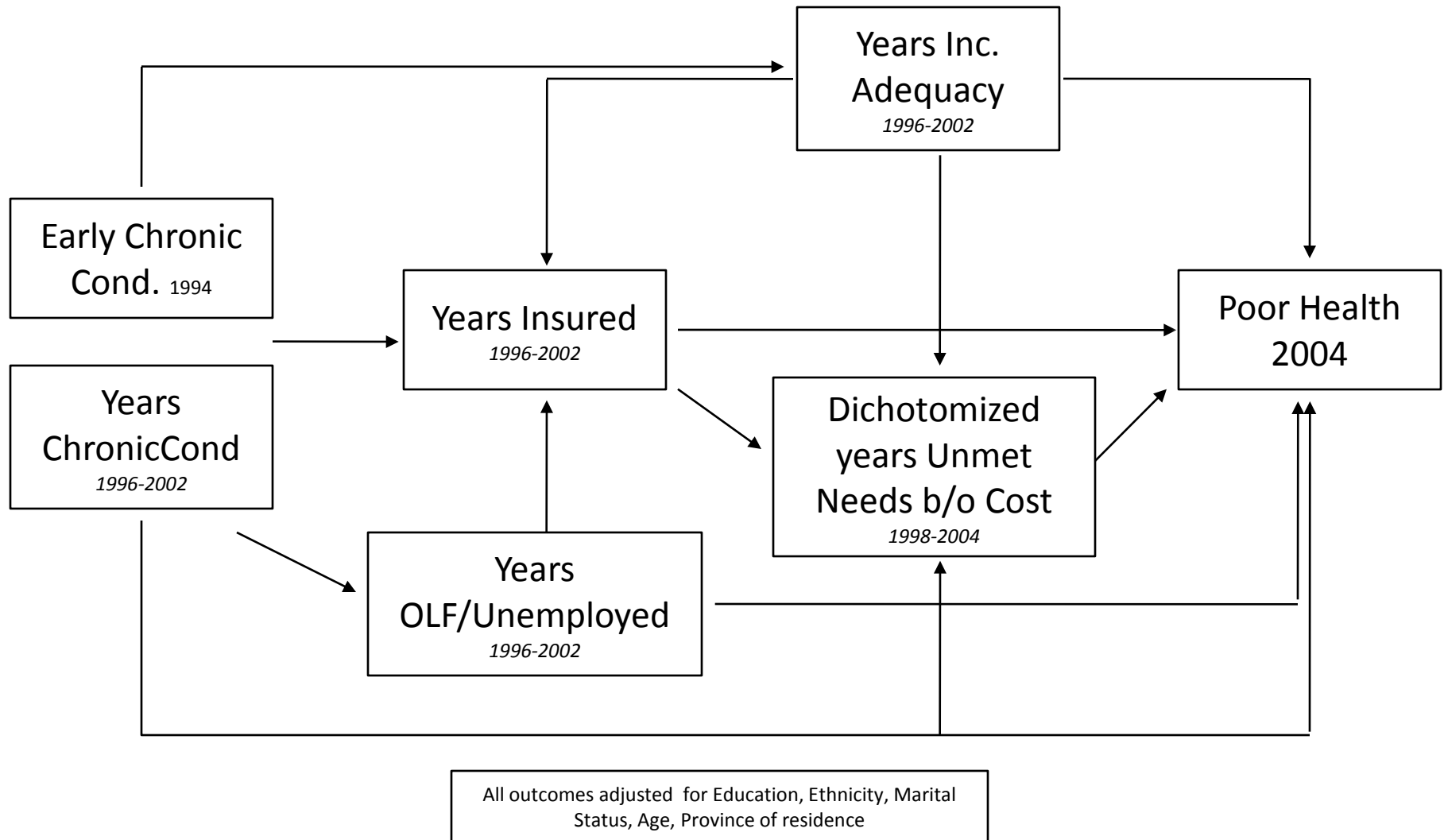
# Methods

## *Sample restriction*



# Methods

## Measurements & Models



## Impact of health insurance on social inequality through unmet needs because of cost

35-45 years olds ( <i>n</i> =1 628)	SRH	Unmet needs because of cost	Years insured	Years in income adequacy
Unmet needs because of cost	1.435 (0.464)**			
Years insured	0.186 (0.098)+	-0.226 (0.177)#		
Years in income adequacy	-0.147 (0.094)#	-0.508 (0.214)*	0.330 (0.036)***	
Years unemployed	0.477 (0.179)**		-0.185 (0.078)*	-0.572 (0.080)***
Years out of labor force	0.479 (0.087)***		-0.007 (0.041)	-0.397 (0.054)***
High school degree	-0.459 (0.311)#	0.397 (0.884)	-0.027 (0.096)	0.316 (0.135)*
More than high school degree	-0.712 (0.329)*	1.314 (0.888)#	0.115 (0.092)#	0.621 (0.132)***
Chronic condition 1994	-0.030 (0.274)	0.639 (0.550)#	0.166 (0.070)*	0.034 (0.093)
Years with chronic condition	0.487 (0.089)***	0.044 (0.196)	0.043 (0.027)#	0.049 (0.037)#
Rsquare	0.781	0.363	0.225	0.227
45-55 years olds ( <i>n</i> =1 369)				
Unmet needs because of cost	0.756 (0.436) +			
Years insured	-0.126 (0.090)#	-0.385 (0.113)***		
Years in income adequacy	-0.325 (0.094)***	-0.328 (0.164)*	0.257 (0.036)***	
Years unemployed	-0.262 (0.258)		-0.343 (0.083)***	-0.363 (0.129)**
Years out of labor force	0.263 (0.089)**		0.016 (0.030)	-0.246 (0.037)***
High school degree	0.147 (0.291)	-0.015 (0.606)	0.090 (0.095)	0.579 (0.124)***
More than high school degree	0.333 (0.291)#	0.361 (0.659)	0.120 (0.093)#	0.793 (0.119)***
Chronic condition 1994	-0.106 (0.247)	0.103 (0.524)	0.113 (0.081)#	-0.036 (0.094)
Years with chronic condition	0.368 (0.115)**	0.448 (0.196)*	0.022 (0.030)	-0.036 (0.034)
Rsquare	0.625	0.475	0.163	0.303

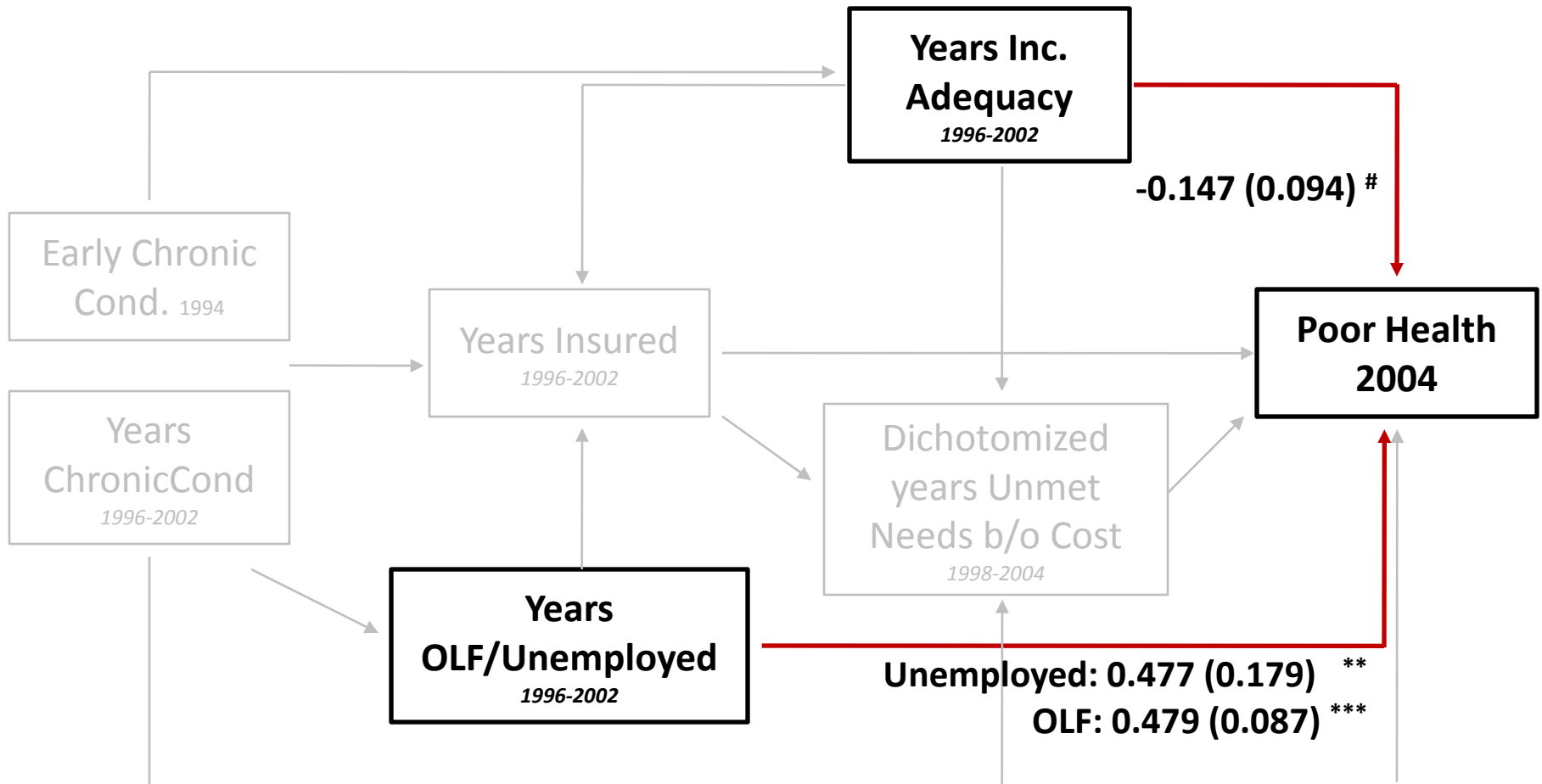
*Adjusted for education, employment status, chronic condition, age, gender, ethnicity, marital status, and province of residence*

\*\*\*<.001; \*\*<.01; \* <.05; + <.10; # <.25;



# Results 1

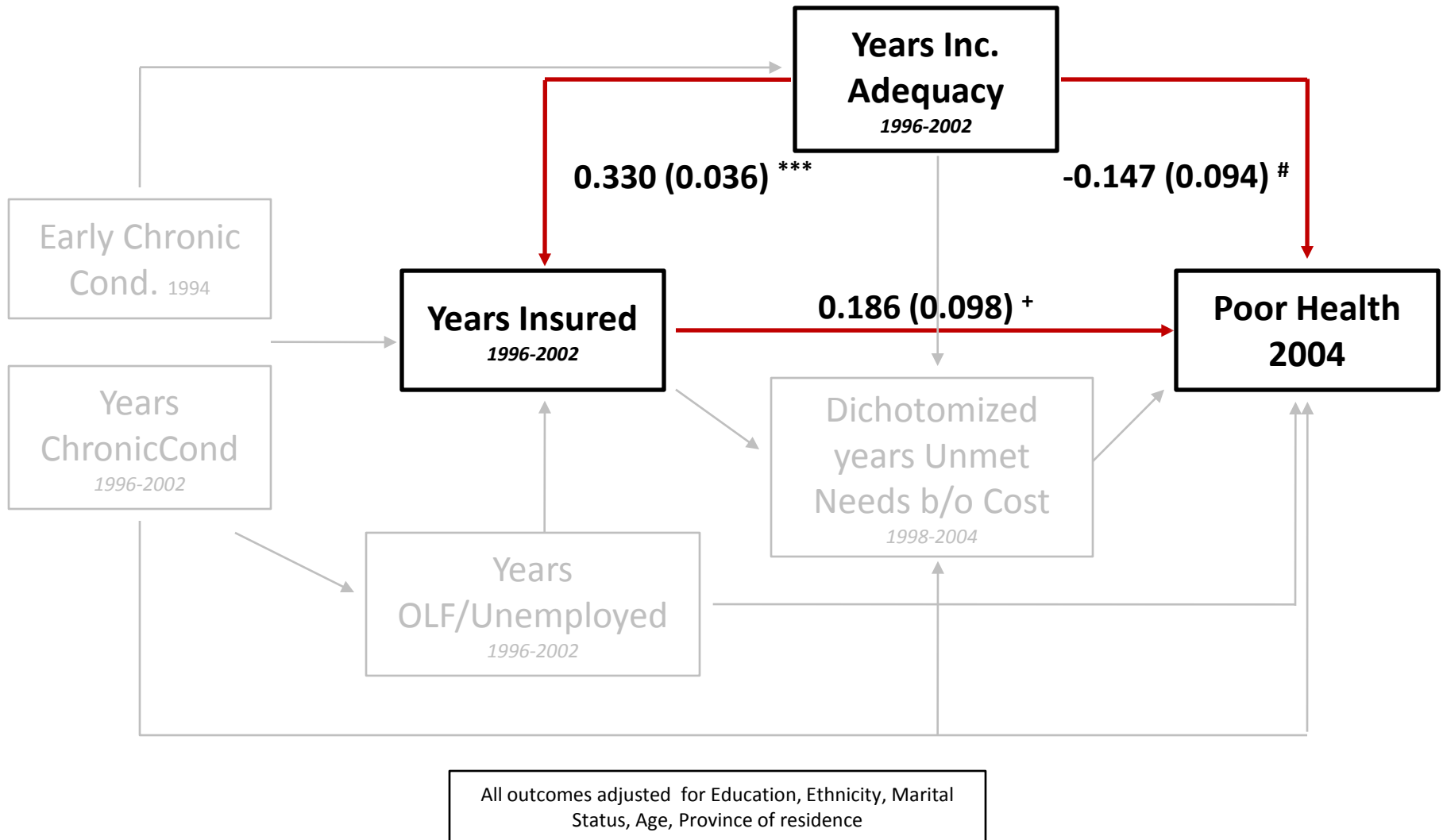
35-45 year olds



All outcomes adjusted for Education, Ethnicity, Marital Status, Age, Province of residence

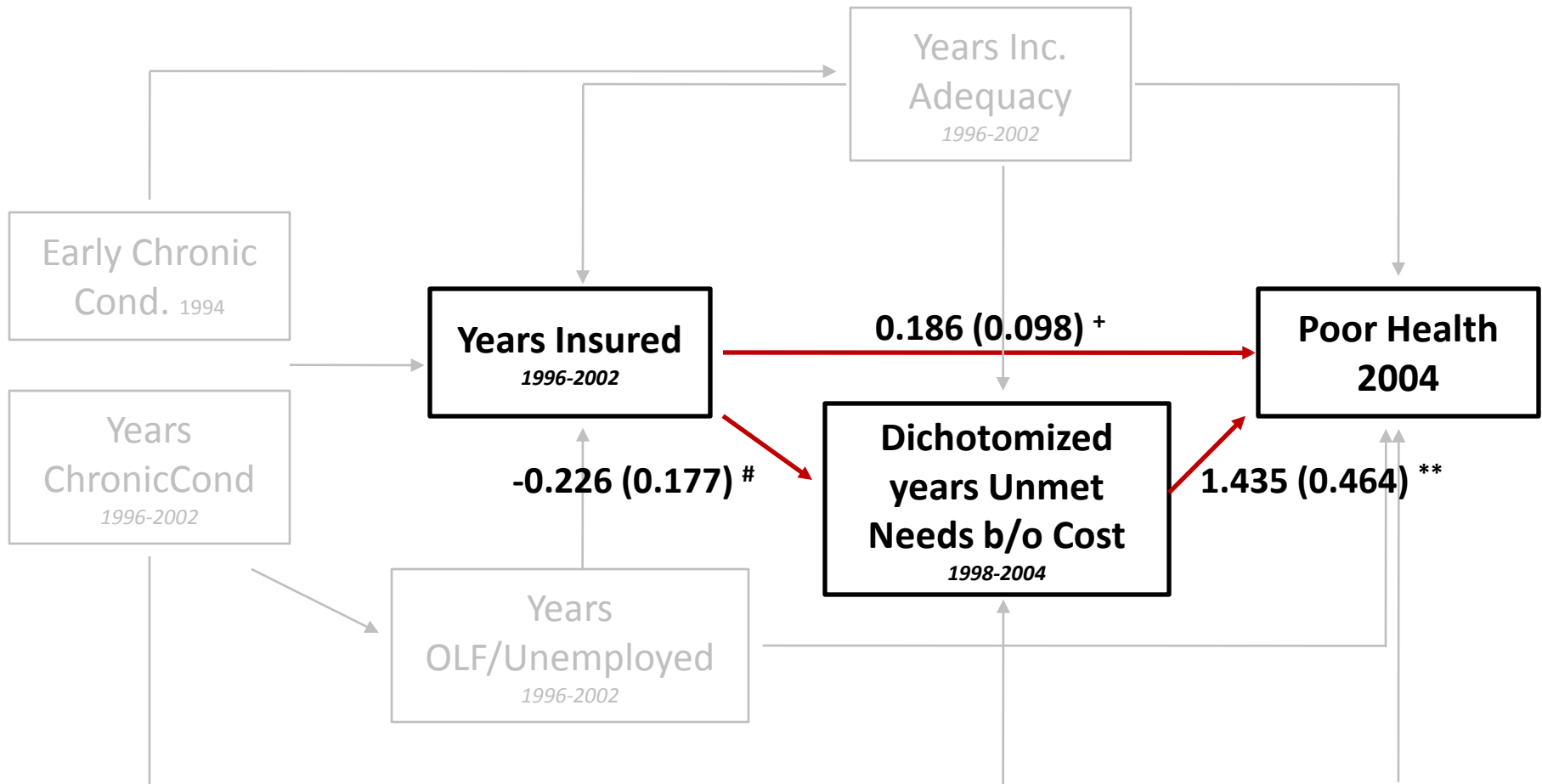
# Results 1

*35-45 year olds*



# Results 1

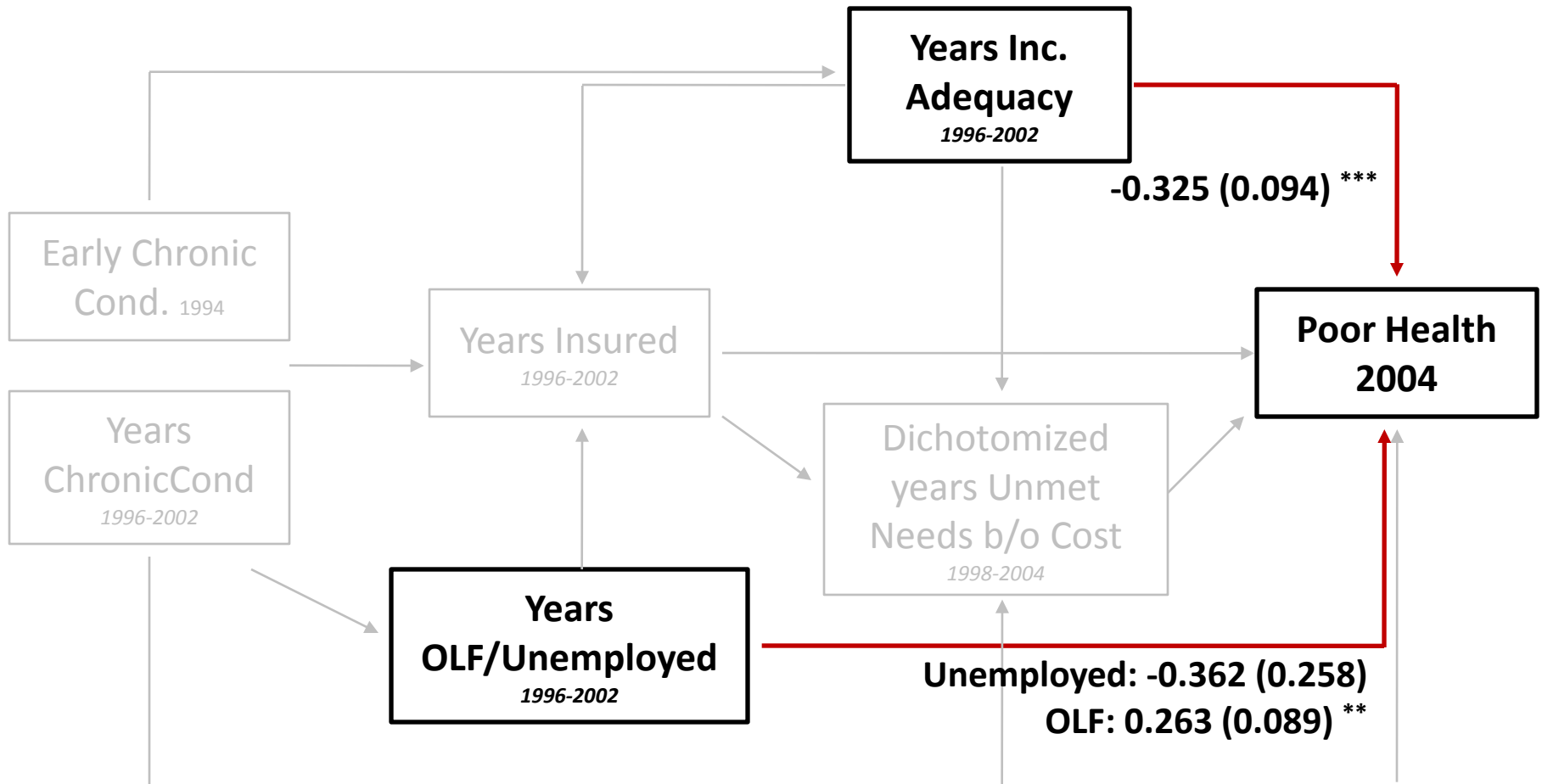
*35-45 year olds*



All outcomes adjusted for Education, Ethnicity, Marital Status, Age, Province of residence

# Results 2

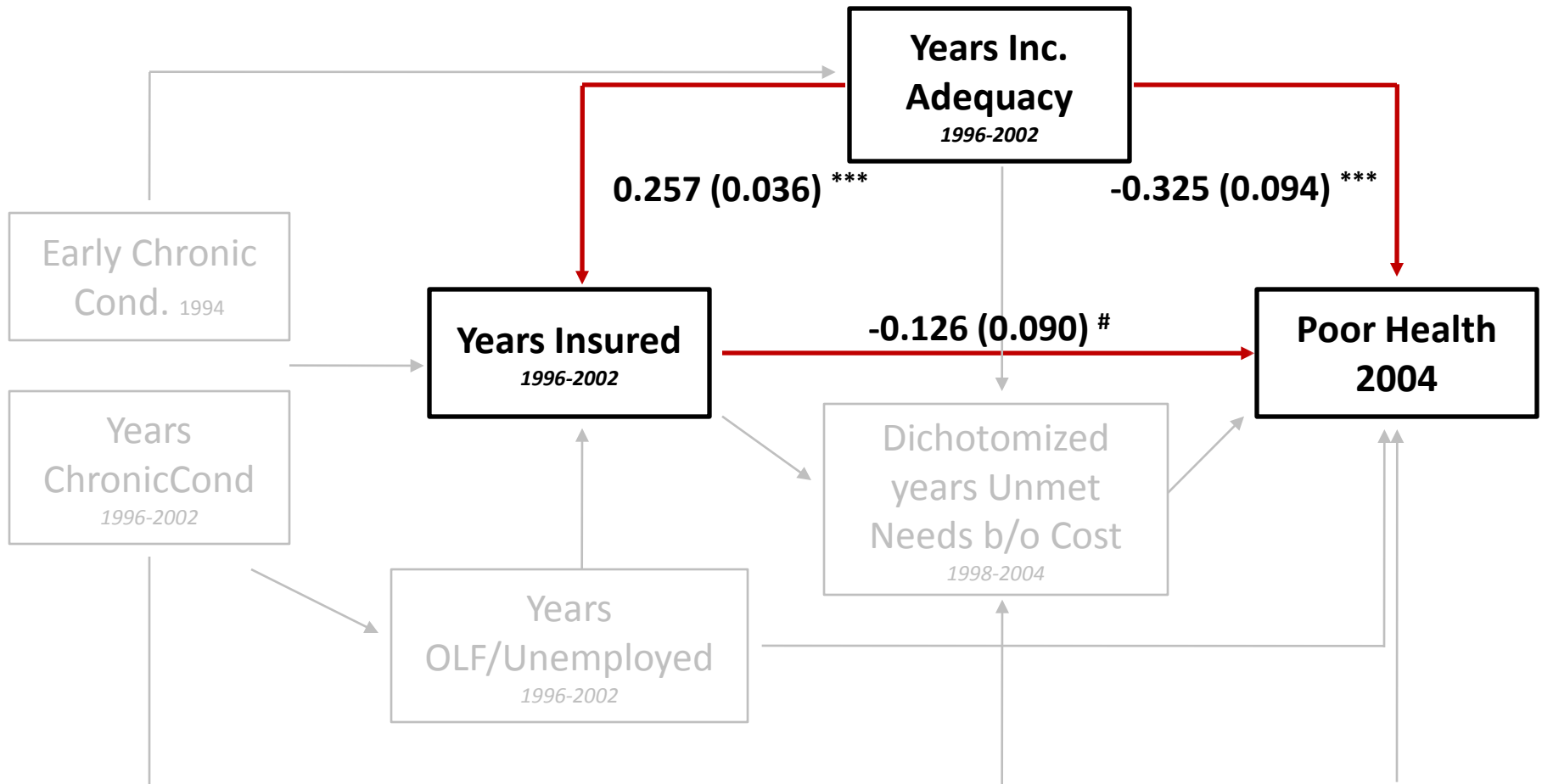
45-55 year olds



All outcomes adjusted for Education, Ethnicity, Marital Status, Age, Province of residence

# Results 2

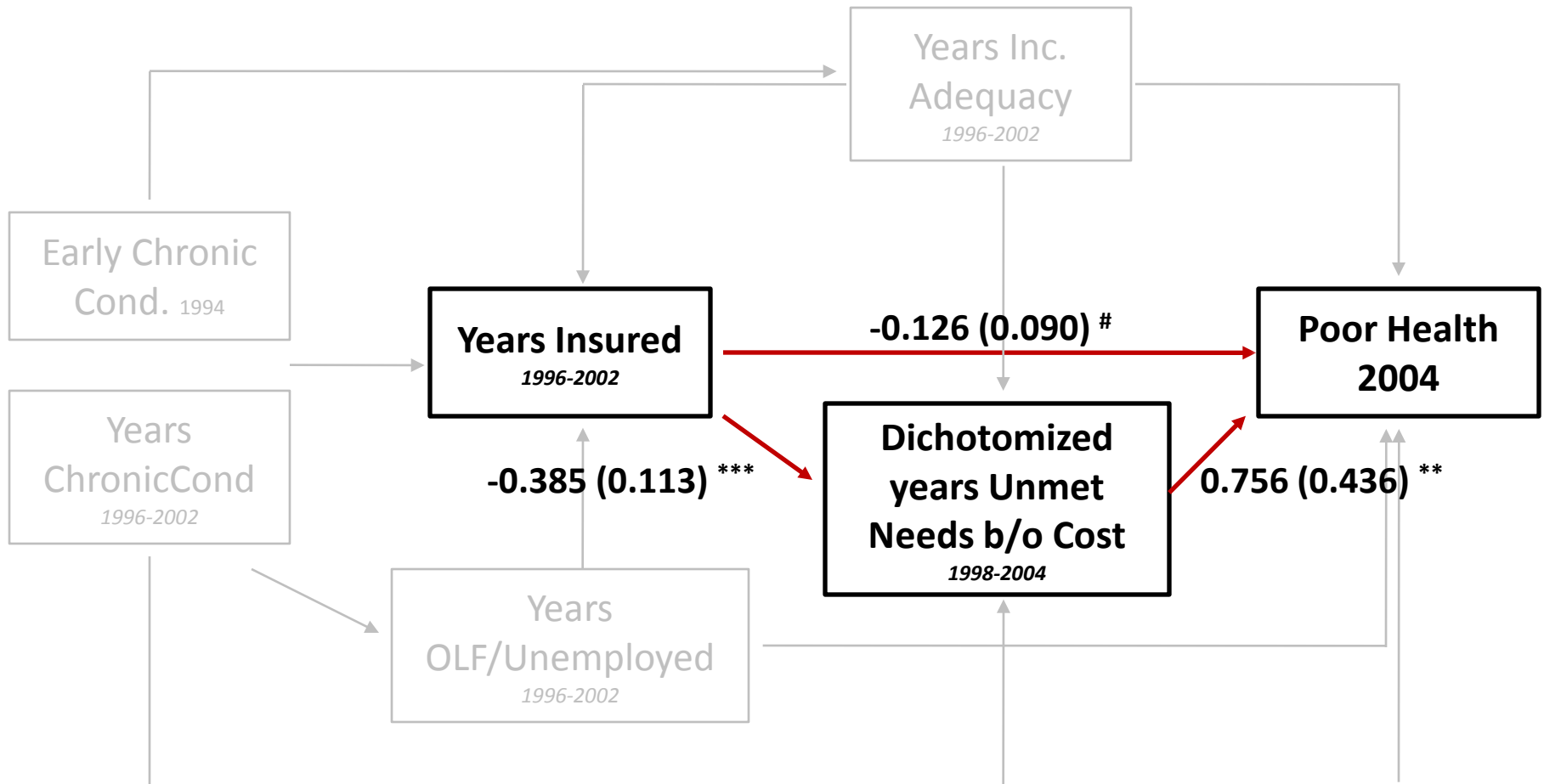
45-55 year olds



All outcomes adjusted for Education, Ethnicity, Marital Status, Age, Province of residence

# Results 2

45-55 year olds



All outcomes adjusted for Education, Ethnicity, Marital Status, Age, Province of residence

# Discussion

- ❑ Impact of health insurance among the 35-45 year olds:
  - ❑ Tend to mitigate health inequalities
  - ❑ Positive impact on SRH only when barriers to health care utilization occur (unmet needs because of cost)
  
- ❑ Impact of health insurance among the 45-55 year olds:
  - ❑ Tend to exacerbate health inequalities
  - ❑ Positive impact on SRH, both directly & indirectly through unmet needs because of cost

# Discussion

- ❑ Compositional effect of the privately insured population?
  - ❑ Initial pathway to social inequalities in health different between the two groups
  - ❑ Health issues and health concerns increase with age
  - ❑ Greater health concerns and preventive behaviors in middle-high SES
  - ❑ Insurance status not randomly assigned



# Implications

- ❑ Positive impact of health insurance for those with the greatest need:
  - ❑ For those who experience cost barriers to health care access
- ❑ BUT even in a universal health insurance system, some are left behind:
  - ❑ Means-tested policies
  - ❑ Working poor
  - ❑ Unemployed
  - ❑ Retirees