

**Active Life Expectancy
and Determinants of
Health Transitions Among
Filipino Older People**

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Objectives

- Determine the level and differentials in ALE among Filipino Older People.
- Assess the factors that influence transitions among health states.

Data and Methodology

2000 Panel Data on Aging in the Philippines

Health Definition: based on responses to question regarding difficulty in performing any of the 4 ADL and 5 IADL functions.

ADL: walking around the house, eating, putting on clothes, taking a bath/going to the bathroom

IADL: preparing own meals, shopping groceries/personal items, managing own money, doing light household chores, using transportation to get to places beyond walking distance

Variable Definition

- **Healthy/Active:** without any ADL or IADL difficulty
- **Unhealthy/Inactive:** with at least one ADL or IADL difficulty

Method of Analysis

A. Calculating ALE: Multistate Life Table
(IMaCH 0.96)

B. Determinants of Health Transition

- **Multinomial Logistic Regression Analysis**

Two models: originating from healthy state

 originating from unhealthy state

- **Multiple Classification Analysis (MCA)** was computed to show the marginal effects of each of the independent variables for each of the transition probabilities. Performed using STATA6 statistical package

Independent Variables

Demographic

- **Sex:** Male ; Female
- **Place of Residence:** Urban ; Rural
- **Age:** Continuous variable

Socio-economic status

- **Education :** no schooling/ elementary; high school or higher
- **Employment:** Working; not working
- **Income:** Quartile Income; Perceived sufficiency of family income

Social Relations (social network and support)

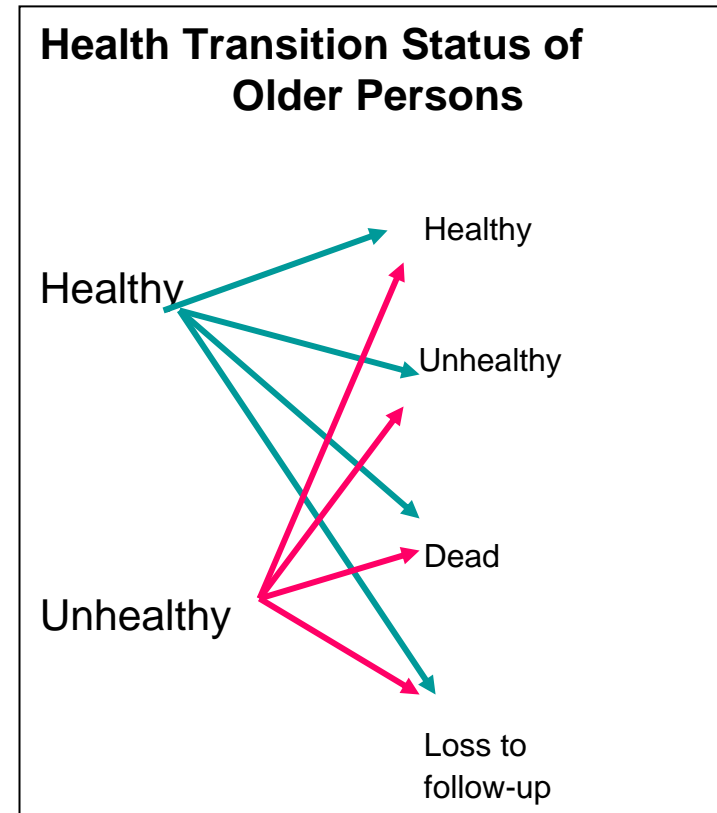
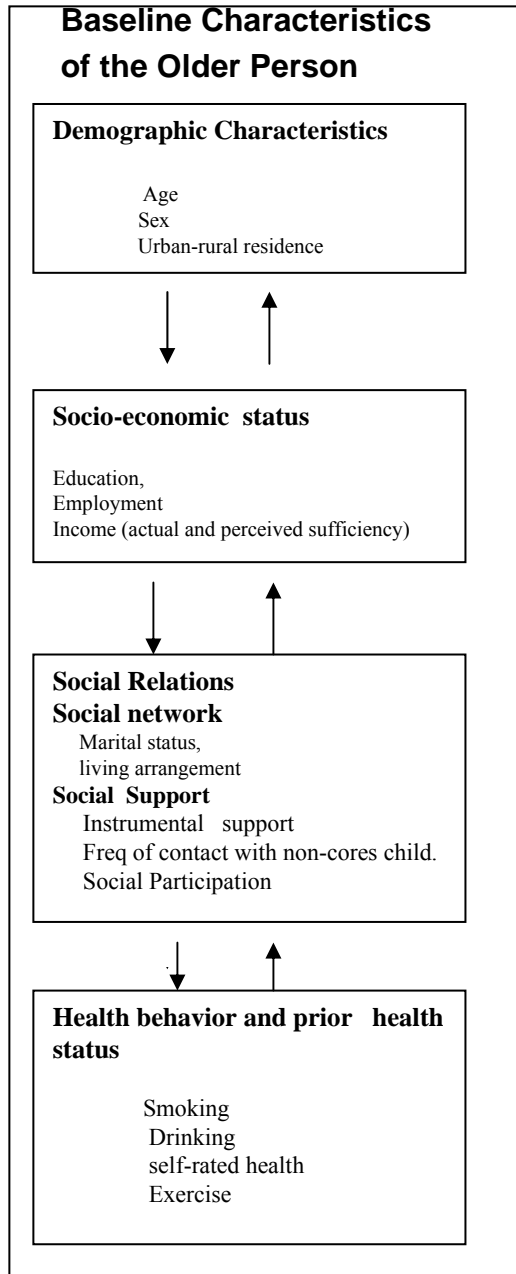
- **Marital status;** currently married; not currently married (never married, divorced, separated)
- **Living arrangement:** coresiding with children; not coresiding with children.
- **Instrumental support:** R gave to children some money in the past year; did not give
- **Exchange of visit:** R visited, called or wrote non-coresident children in the past year; did not visit, write or call
- **Social activities:** Attended social activity at least weekly; attended less frequently or never

Independent Variables

Health Behavior and prior health status

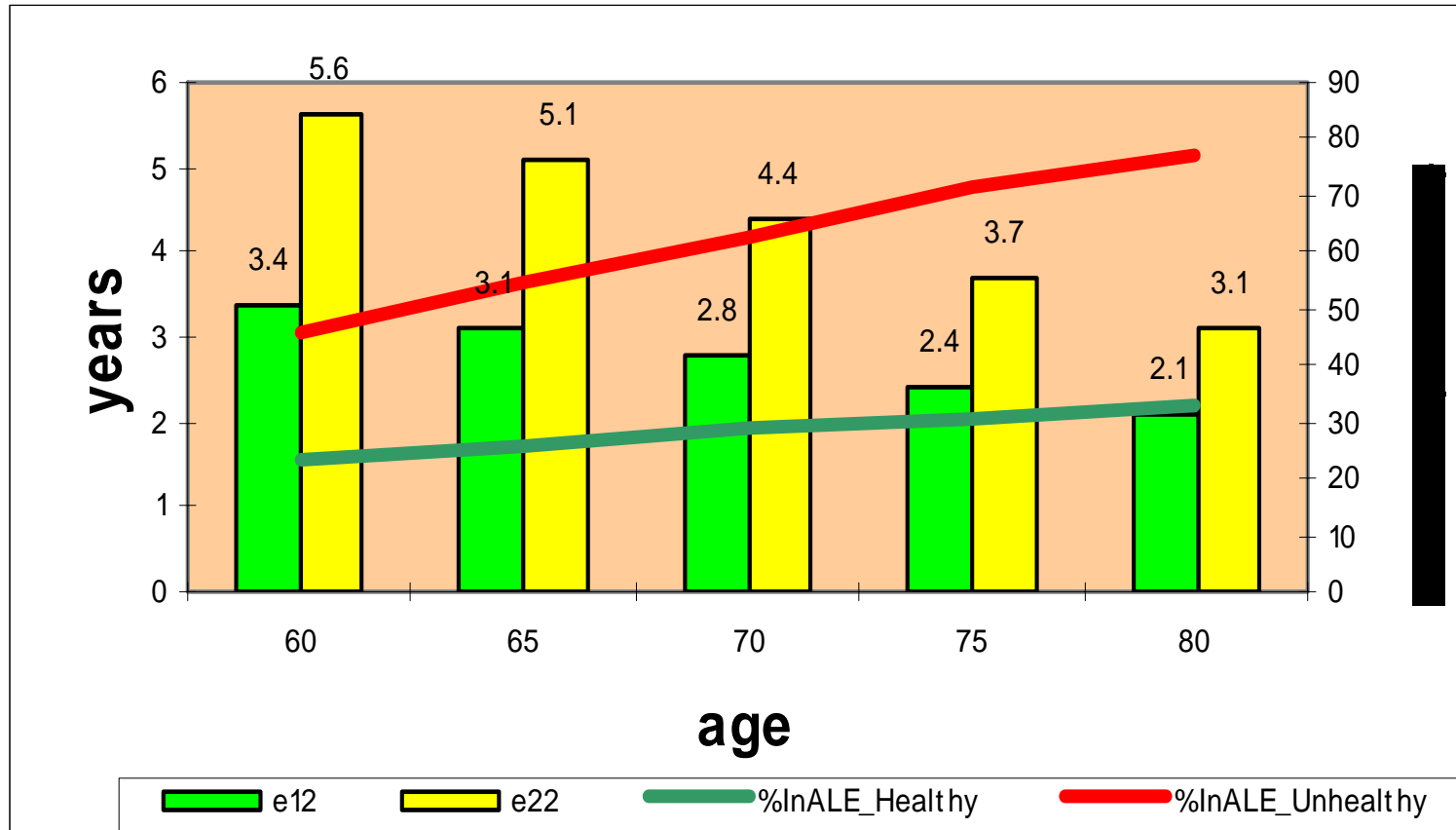
- **Smoking behavior:** Currently smoking;
Not currently smoking
- **Drinking behavior:** Currently drinking;
Not currently drinking
- **Self assessed health:** Good, better, Fair;
poor
- **Exercise:** Engaged in physical
exercise at least weekly;
engaged in physical
exercise less frequently or
never

Conceptual Framework

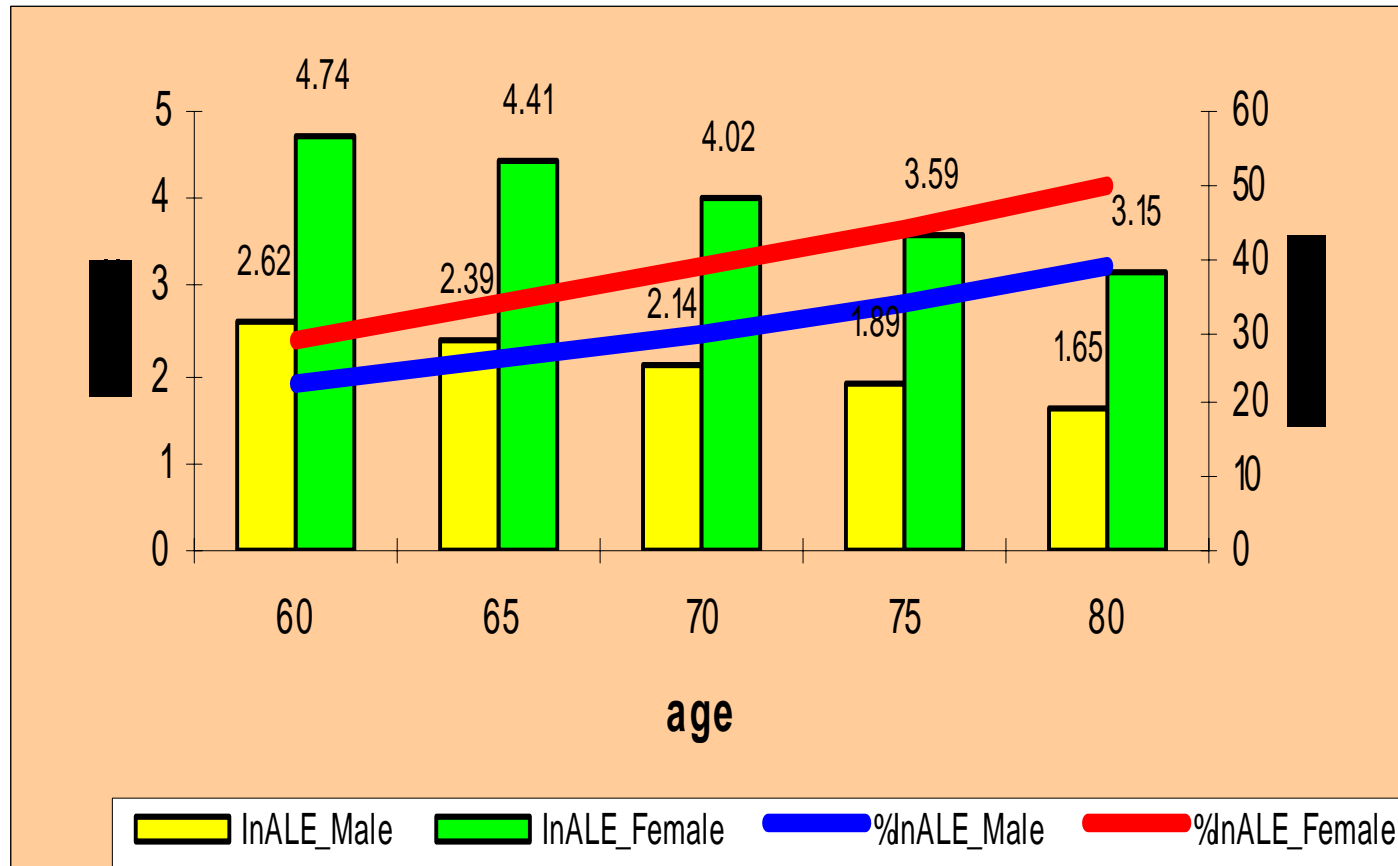


Policy environment
socio-economic and cultural milieu

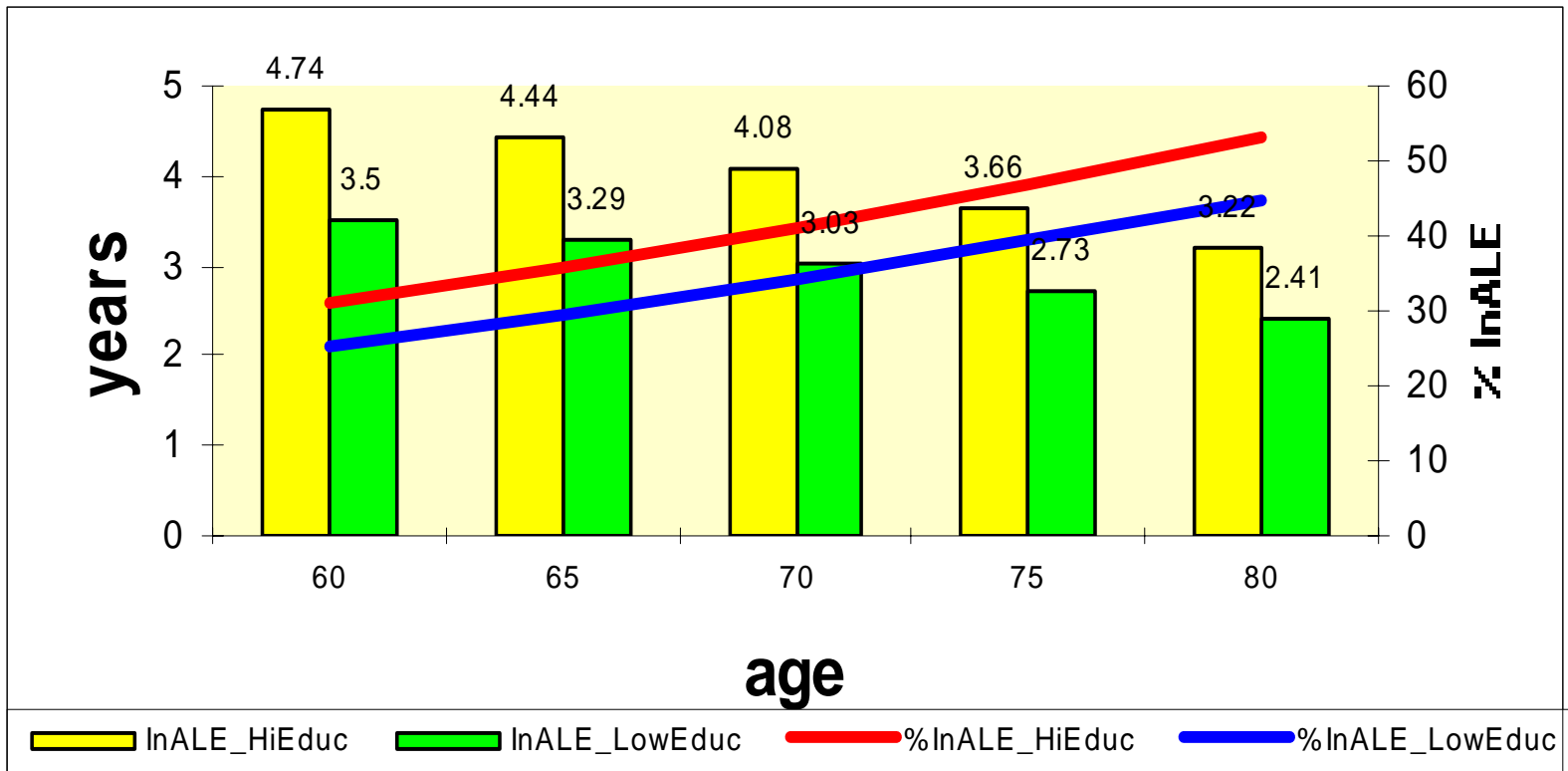
Inactive Life Expectancy and Proportion of remaining life in disability by age and initial health state



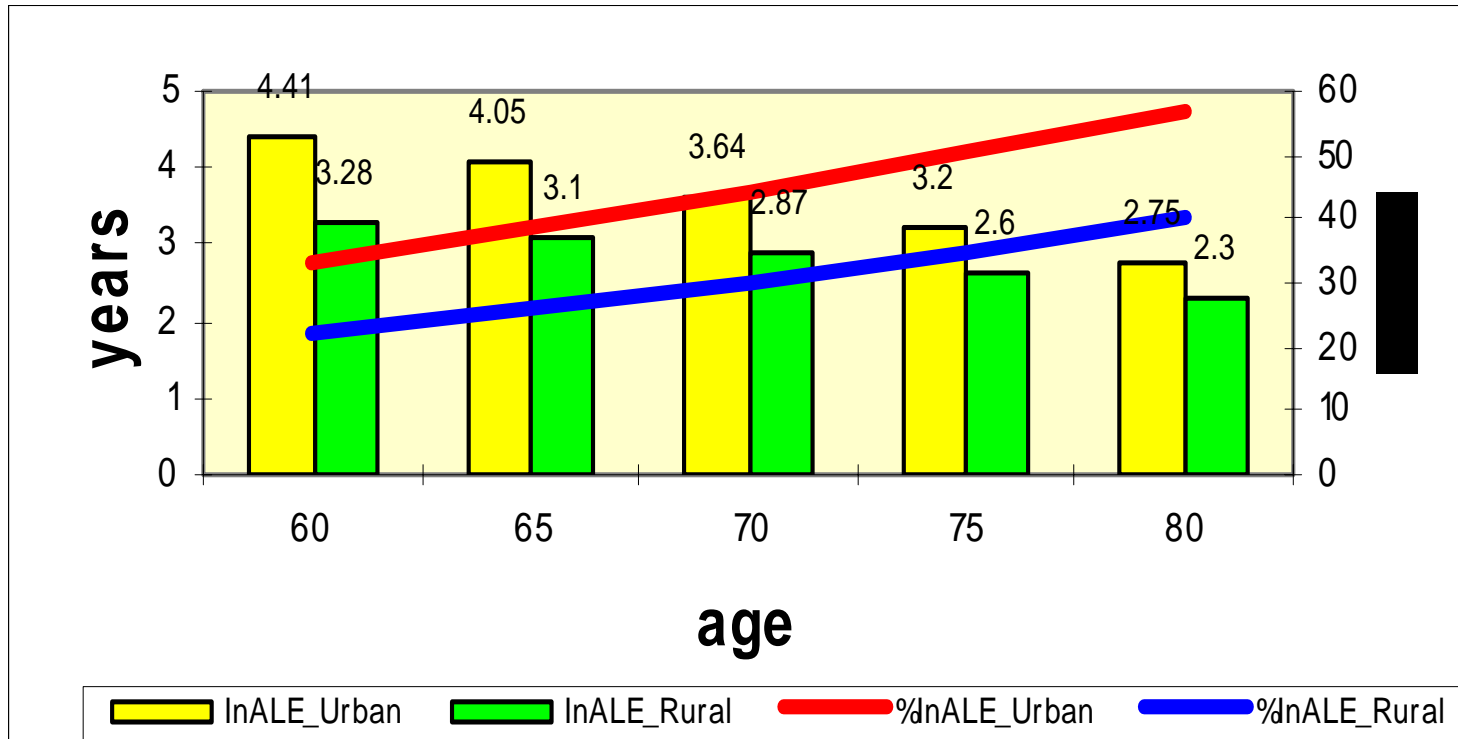
Inactive Life Expectancy and Proportion of remaining life in disability by age and gender



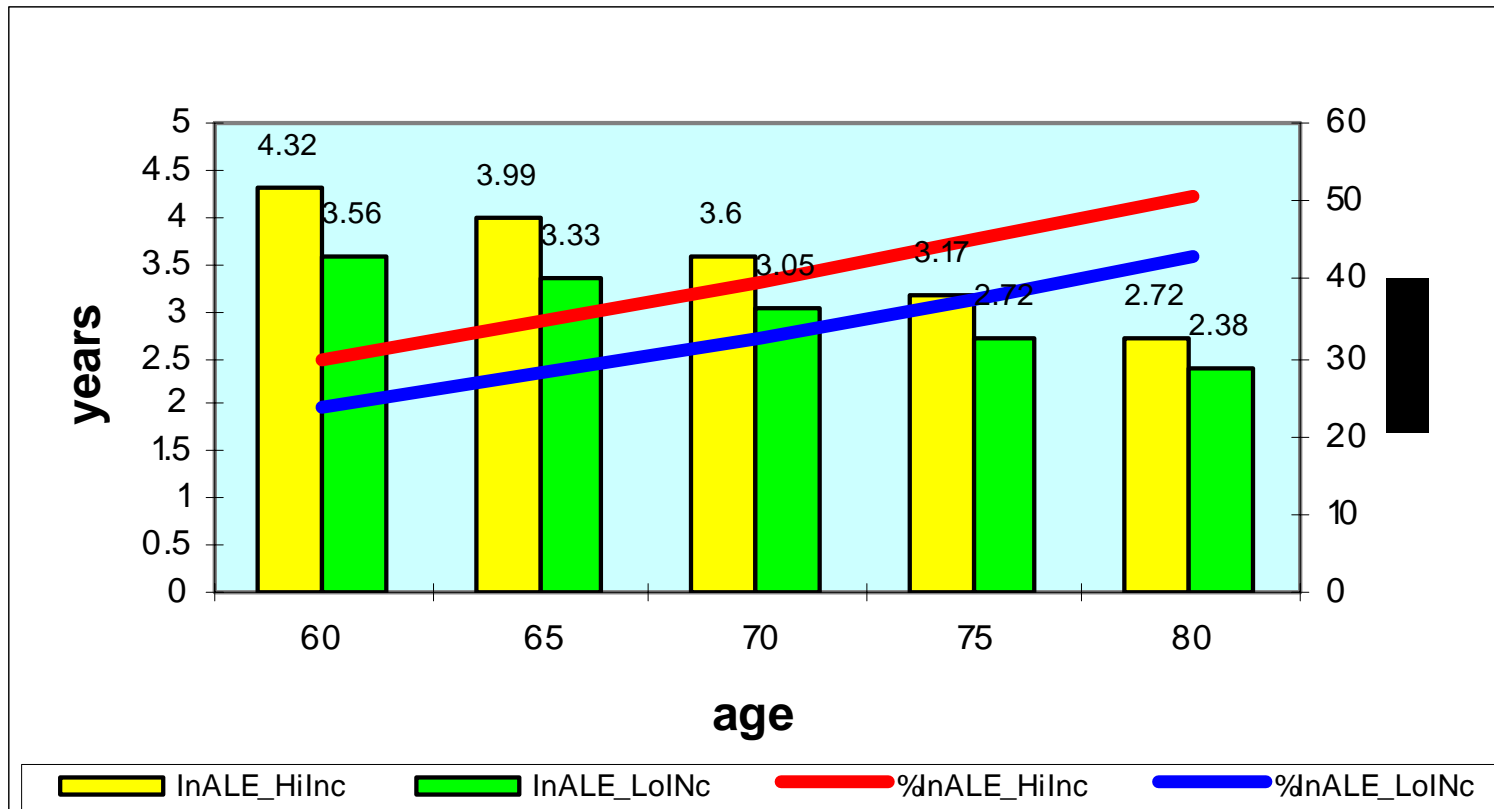
Inactive Life Expectancy and Proportion of remaining life in disability by age and education



Inactive Life Expectancy and Proportion of remaining life in disability by age and place of residence



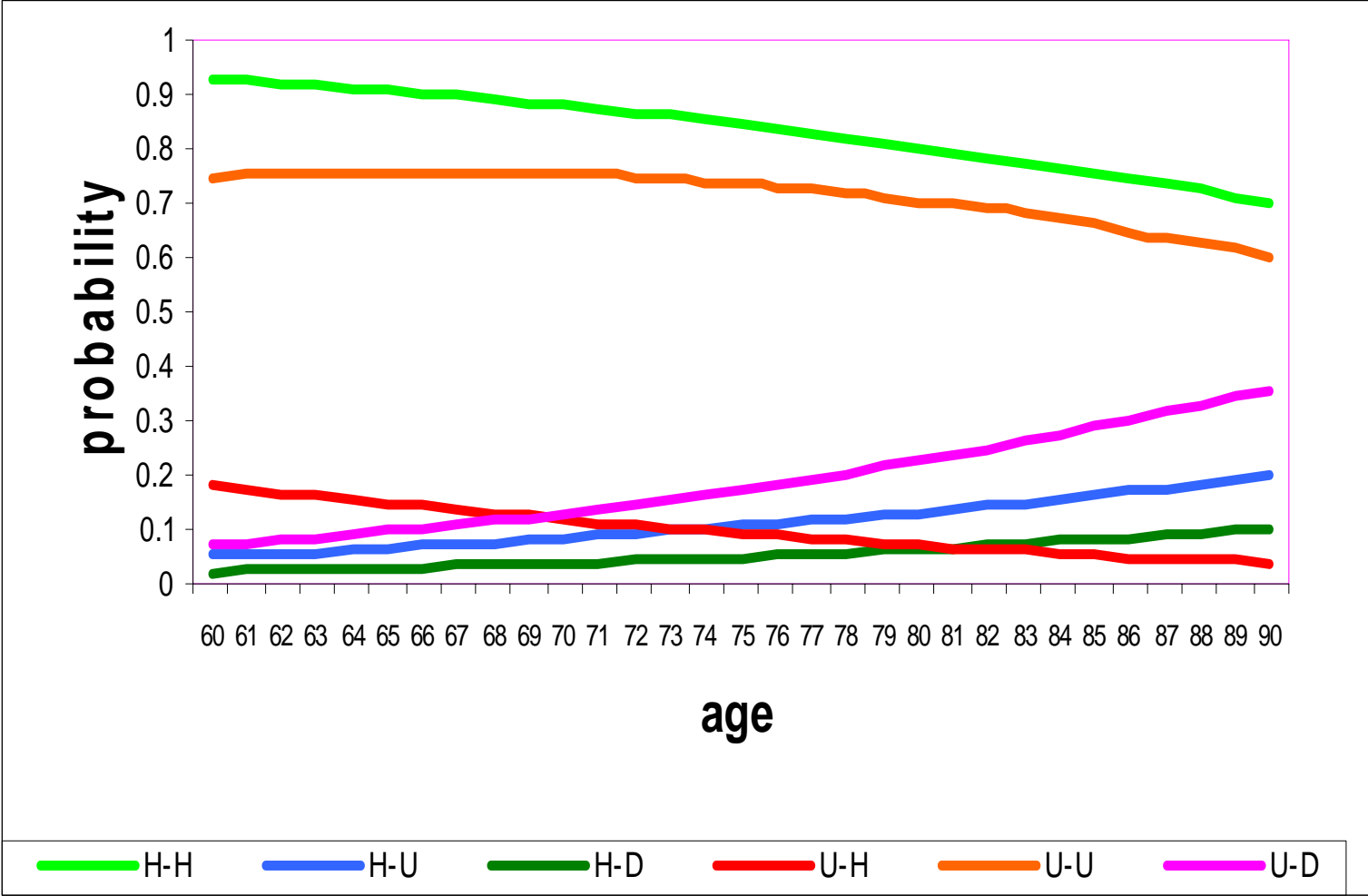
Inactive Life Expectancy and Proportion of remaining life in disability by age and Income



Health Transitions among Filipino Older People between 1996 and 2000 by initial health state, sex and age:

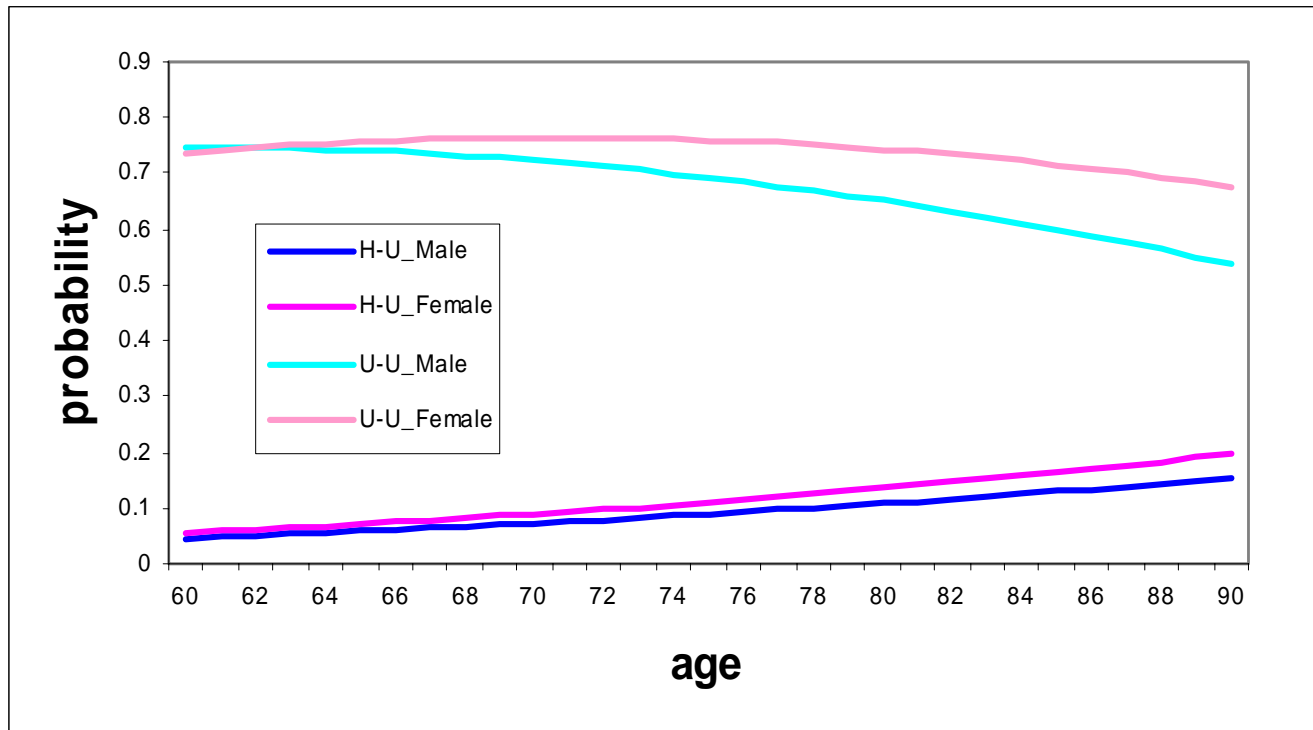
Sex and Age	Active	Inactive	Dead	Moved/Loss to follow up	Total (N)
50+					
Both Sexes					
Active	59.00	12.30	13.40	15.30	100 (673)
Inactive	26.10	26.50	39.60	7.00	100 (111)
Male					
Active	60.40	10.10	16.10	13.40	100 (293)
Inactive	17.50	20.00	55.00	7.50	100 (40)
Female					
Active	57.60	14.10	11.20	17.00	100 (375)
Inactive	31.0	31.00	31.00	7.00	100 (71)
60+					
Both Sexes					
Active	51.10	15.80	18.10	15.00	100 (354)
Inactive	20.50	27.70	47.00	4.80	100 (83)
Male					
Active	53.30	11.10	23.90	11.90	100 (135)
Inactive	13.80	17.20	65.50	3.40	100 (29)
Female					
Active	49.80	18.70	14.60	16.90	100 (219)
Inactive	24.10	33.30	37.00	5.60	100 (54)

Probability Health Transition by Initial Health State, Both sexes



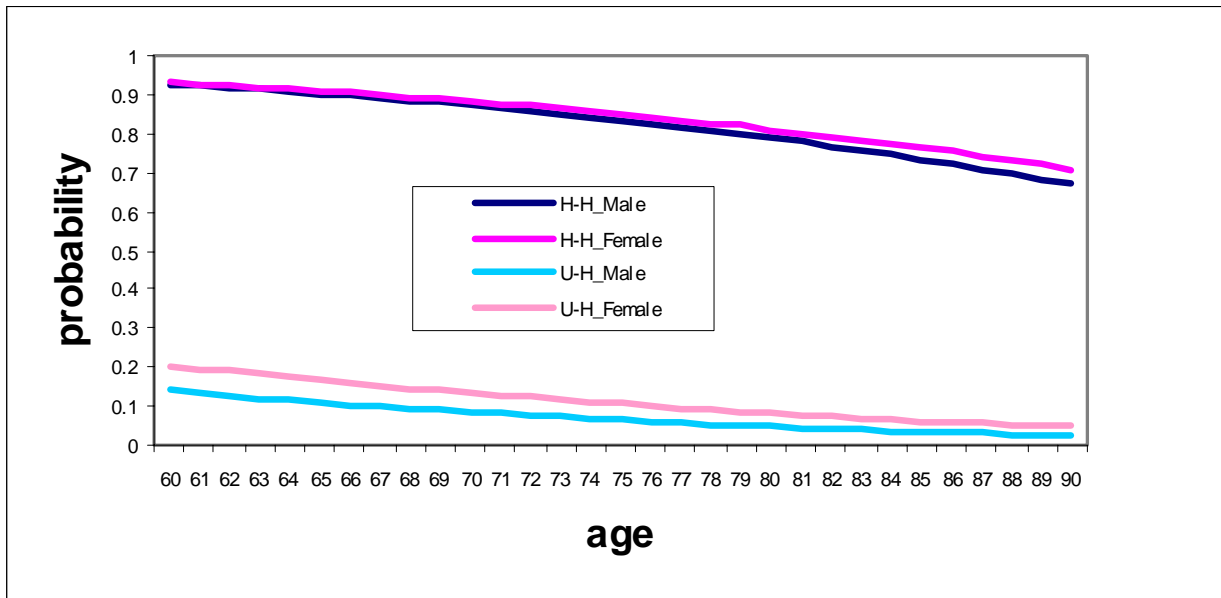
Gender Differentials in Health Transition

Probability of getting disabled and retention rates (unhealthy)

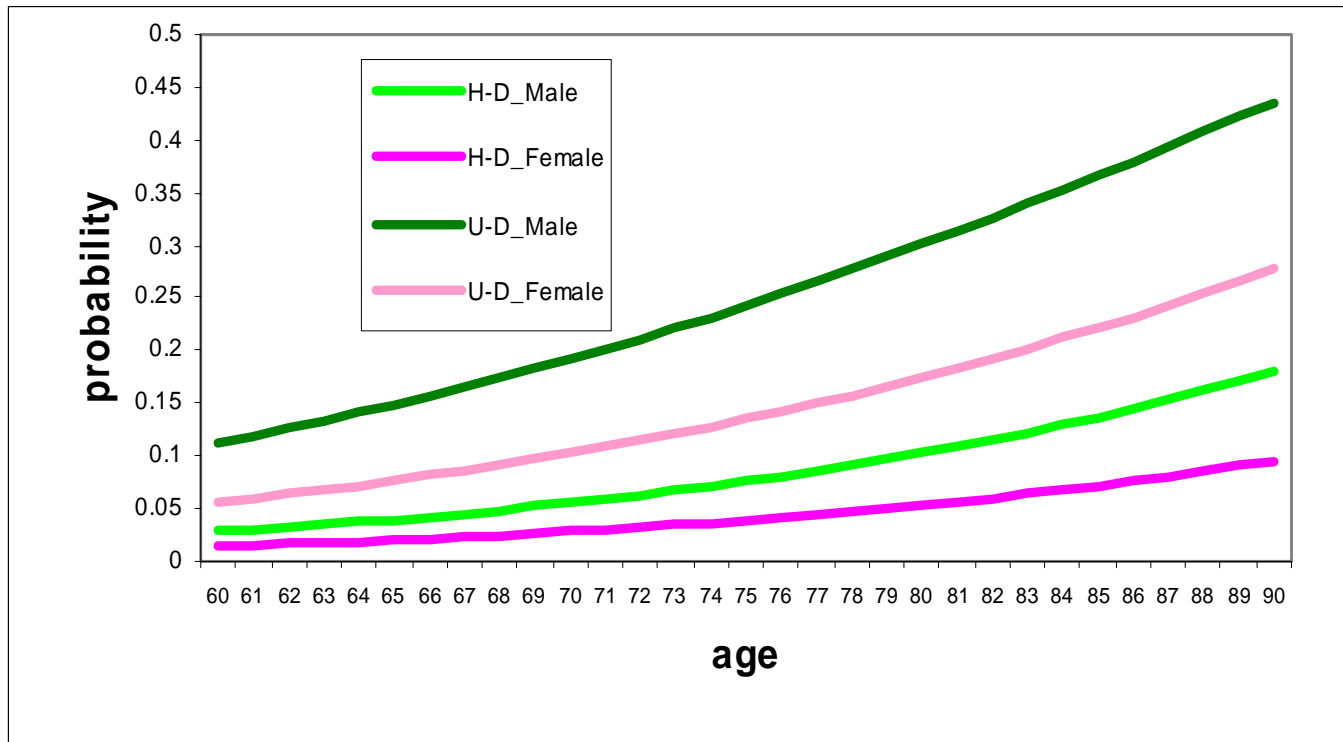


Gender Differentials in Health Transition

Retention rates (healthy) and recovery rates



Probability of dying by initial health state by gender



Determinants of Health Transition

Results of Multinomial Logistic Regression: Marginal Effects of Explanatory Variables on Transition Probabilities of Functional Status among those Healthy

Explanatory Variables	Originating from 'Not Disabled'			
	P11	P12	P13	P14
(Baseline Characteristics)				
Age		0.03**	0.06**	
Male (Male=1)			0.64**	
Urban (Urban=1)		0.21*	0.25*	0.52**
Education (High school=1)				
Work status (working =1)				
First Quartile Income (FQ Income=1)				
Third Quartile Income (TQ Income=1)				
Fourth Quartile Income (FoQ Income=1)				
Perceived Income Sufficiency (Sufficient=1)				
Married (Married=1)				
Coresidence with children (coresiding=1)				
Visit children (visit=1)				
Instrumental support (give money to children=1)			-0.86**	
Smoking (currently smoking=1)				
Drinking (currently drinking=1)			-1.41**	
SAH (good or better=1)				
Social Participation (with social participation=1)			-0.73*	
Exercise (with regular exercise =1)				
Sample Estimate	.591	.124	.132	.153

* p11 = probability from 'not disabled' to 'not disabled'; p12 = probability from 'not disabled' to 'disabled'; p13 = probability from 'not disabled' to 'dead'; p14 = probability from 'not disabled' to 'lost to follow-up'

*Sample estimates refer to the estimated relative transition probabilities for those at a given state of origin in 1996. They are derived from the results of the multinomial logit model shown in Appendix 2.

*.01 < p ≤ .05; ** p ≤ .01.

Summary & Conclusion

- Patterns, rates and trajectories of health transition vary across different sectors of the population.

Females outlive their male counterparts and exhibit higher levels of longevity gains but are more likely to live a greater proportion of their remaining life in disability.

Higher SES (high school or better education, greater than median income) is associated with longer years and greater proportion of years lived in disability.

Rural residence is associated with longer years and better quality of remaining life.

Initial health state significantly affects future health and mortality conditions.

Summary & Conclusion

- There is a significant movement in and out of original health state with a non-negligible proportion of recovery noted particularly among the females.

50+years: Females: 31%

 Males: 18%

60+years: Females: 24%

 Males: 14%

Summary & Conclusion

Among the initially healthy....

- age, sex, place of residence, drinking, instrumental support and social participation are significant predictors of the probability of dying.
- Age and place of residence are significant predictors of health deterioration.
- Urban residence is a significant predictor of the probability of loss to follow-up.

Summary & Conclusion

Among the initially unhealthy....

- age and place of residence are significant covariates of the risk of dying.

SES variables including education and income did not have any significant effect on health transition.