

Comparing the Active Life Expectancy of Beijing Elderly During Two Periods: 1992 to 1997 and 1997 to 2004

Zhe Tang, Capital Univ. of Medical Sciences

Manjun Xiang, Capital Univ. of Medical Sciences

Zachary Zimmer, Population Council

Toshiko Kaneda, Population Reference Bureau

Xinghua Fang, Capital Univ. of Medical Sciences

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Objective

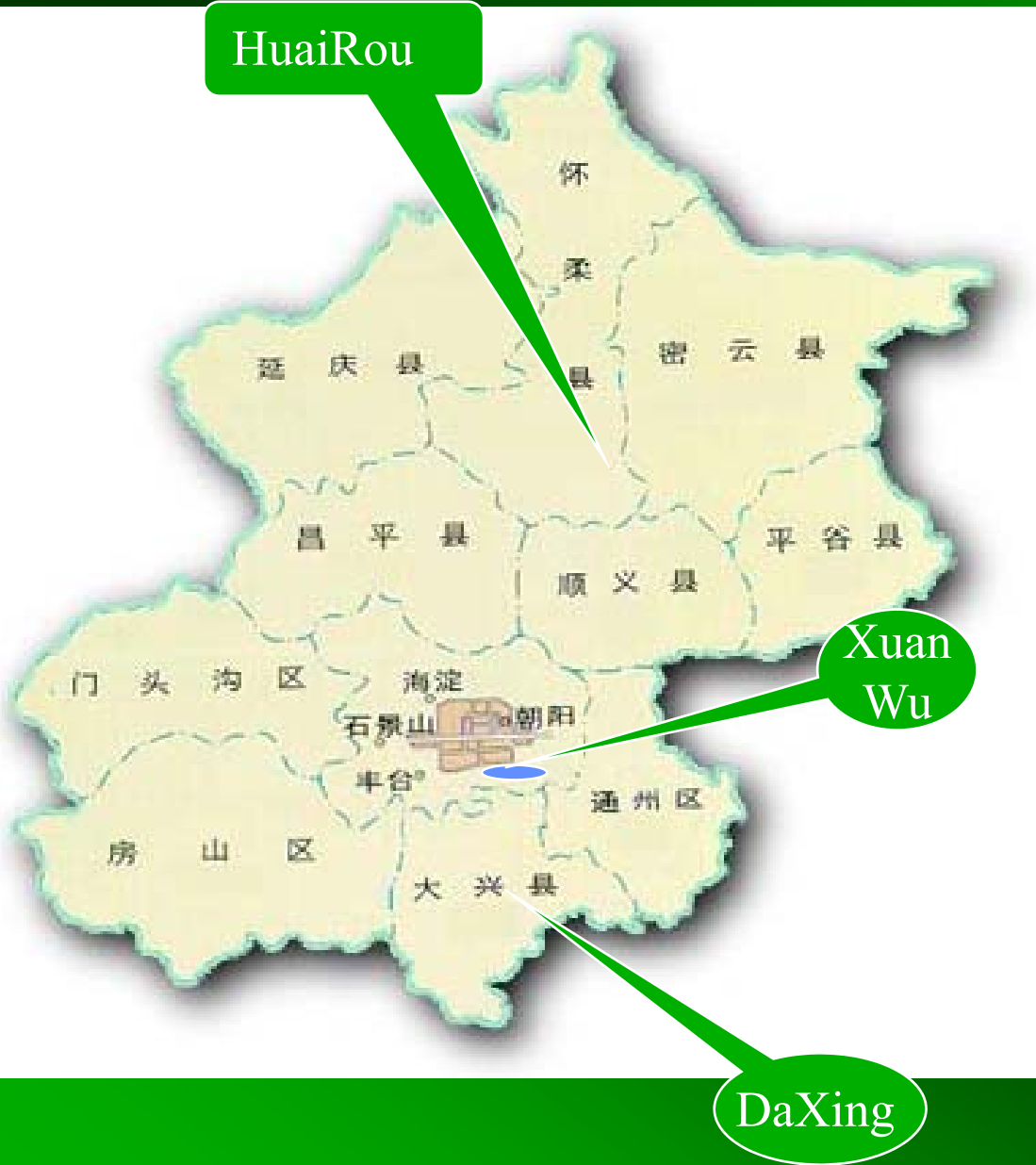
- 1. Examine Life Expectancy and both absolute and relative measures of Active Life Expectancy among the elderly in Beijing by sex and rural/urban residence.**
- 2. Investigate and how absolute and relative ALE is changing over time.**

Method

1. BMLSA data involves several waves
2. Baseline was collected in 1992
3. Additional waves in 1994, 1997, 2000 and 2004
4. 2000 survey added additional respondents to make up for those lost (cohort replacement)
5. To investigate changes over time, current study divides sample into two period:
 1. 1992 to 1997
 2. 1997 to 2004

BMLSA Data

HuaiRou



Xuan
Wu

DaXing

Beijing, capital metropolitan
Eighteen administrative areas, divided into 3 categories:

8 urban districts,
5 suburban counties,
5 mountain counties.

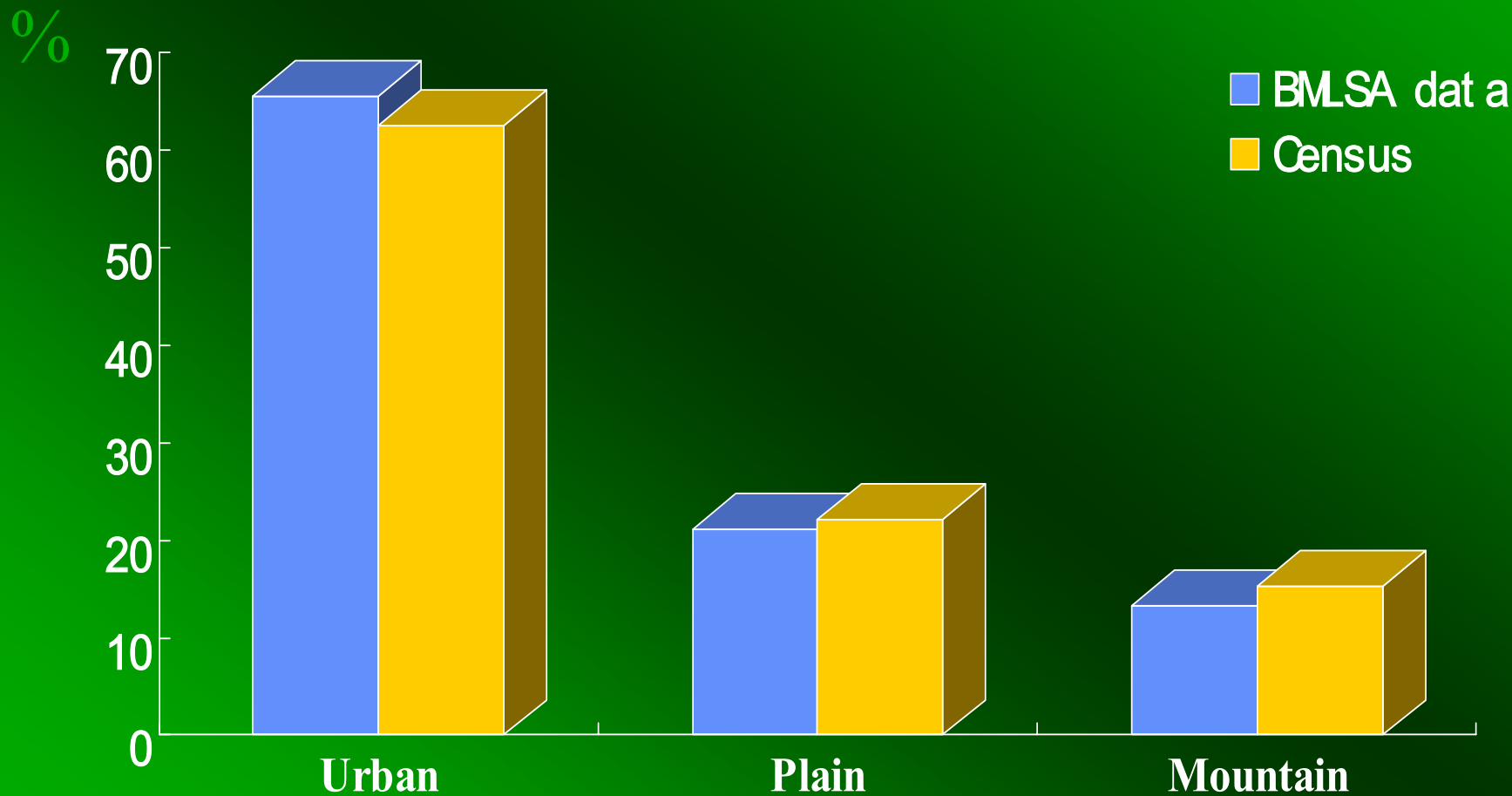
The most average district/county was chosen for each category:

HuaiRuo (mountain).

XuanWu (urban),

DaXing (suburban)

Comparing Percent of Elderly Living in Three Different Regions, BMLSA and 1990 Census



Baseline sample characteristics, 1992

		%					
		%					
Sex		Region		Age		Education	
Male	48.9	Mountain	13.3	55-59	14.6	University	6.8
Female	51.1	Plains	21.1	60-64	17.3	Middle school	14.9
		Urban	65.6	65-69	17.1	Primary	27.1
				70-74	17.0	Illiterate	51.1
				75-79	15.9		
Total Sample	3257 (100.0)			>=80	18.1		

Baseline sample characteristics, 1997

%							
Sex		Region		Age		Education	
Male	48.7	Mountain	23.6	55-59	0.0	University	6.9
Female	51.3	Plains	25.4	60-64	17.1	Middle school	11.8
		Urban	51.0	65-69	26.3	Primary	27.7
				70-74	22.0	Illiterate	53.6
				75-79	17.0		
Total Sample	2787 (100.0)			>=80	17.6		

Sample Sizes and Results of Follow-up

	Year	Surveyed	Died	Missing	Total
1st Period	1992	3257			3257
	1994	2703	363	191	3257
	1997	2043	795	419	3257
2nd Period	1997	2787			2787
	2000	2213	413	161	2787
	2004	1403	812	571	2787

Questionnaire and Measurement

- ***Questionnaire***: Modeled on earlier WHO studies conducted in Asia, but modified to suit the Chinese situation
- ***Topics*** : Physical health, Functional health, Behaviors, Socioeconomic status, Demographic information
- ***Measures for functional health*** : Eating, dressing, getting up from bed, walking 300 meters, bathing.
- ***Criteria for disability*** : Is completely dependent for any one of the above tasks.

Estimating Life and Active Life Expectancy

- Use IMaCh 0.8
- Standard errors used to test for significance
- Calculate the ratio of ALE to LE
- Variables in model include, age, sex, rural/urban

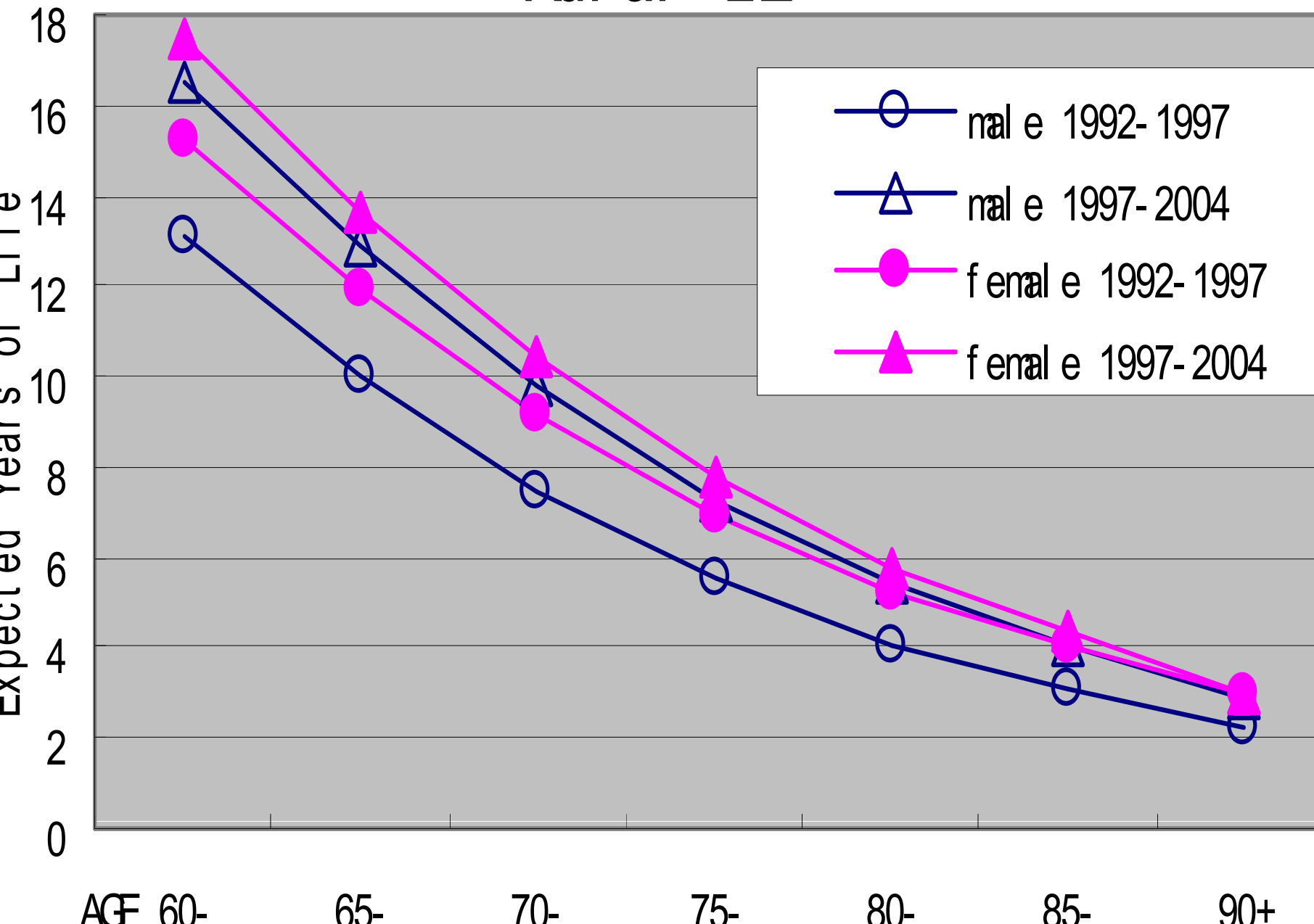
Transitions:



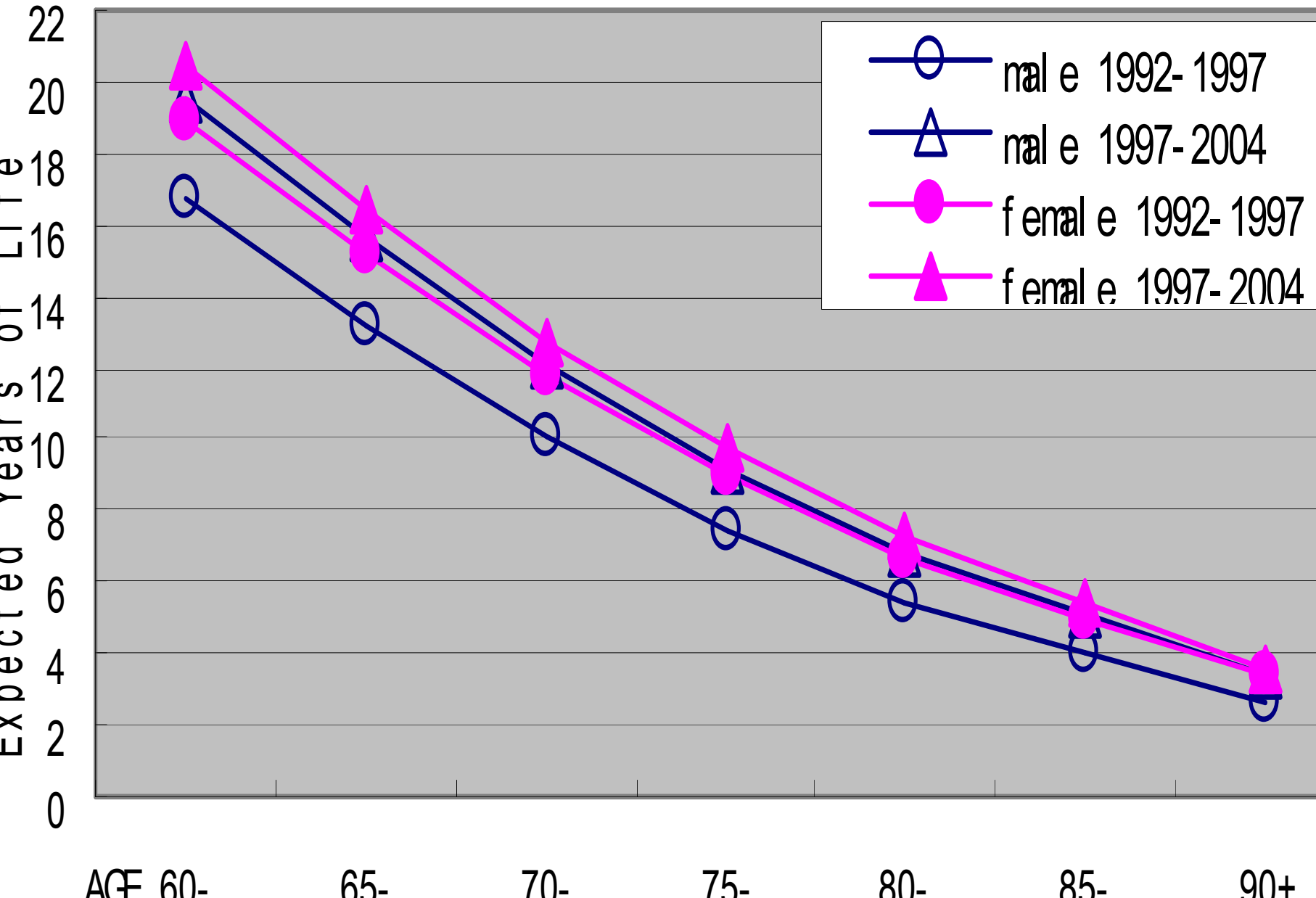
Summary of Life Expectancy Findings

- 1. Females and urban residents have higher LE**
- 2. In both urban and rural areas, LE increased significantly from the first to the second period**
- 3. Incremental gain in LE is in the following order:**
 - Rural Male**
 - Urban Male**
 - Rural Female**
 - Urban Female**

Rural LE



Urban LE



Summary of Active Life Expectancy Findings

Overall:

ALE increased from the 1st to the 2nd period among most males but only among younger females in rural areas

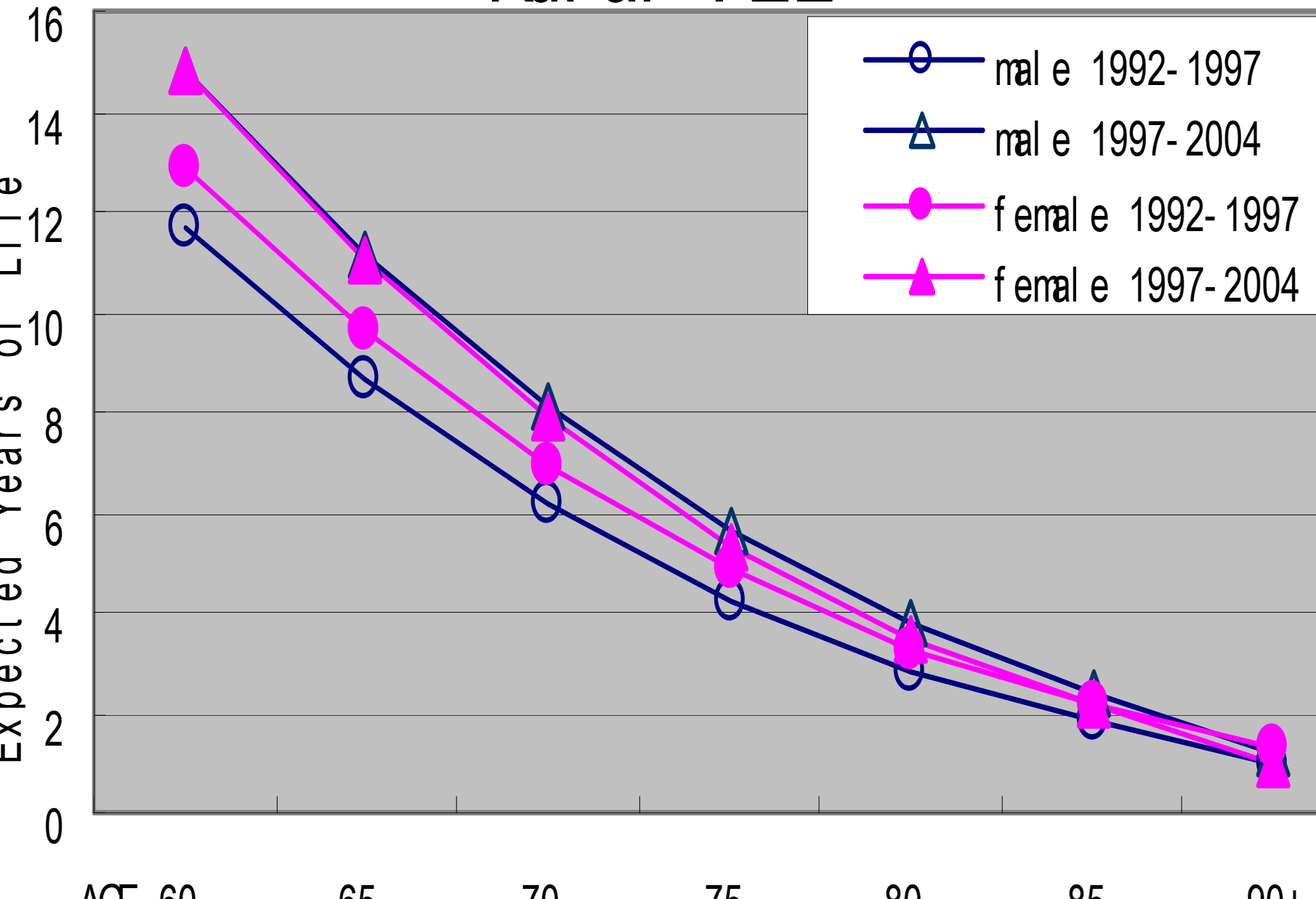
Males versus Females:

- Because male ALE increased while female ALE remained stable, a female advantage in ALE went from being significant in 1st period to insignificant in 2nd**
- Furthermore, among the old-old, females became disadvantage in the 2nd period**

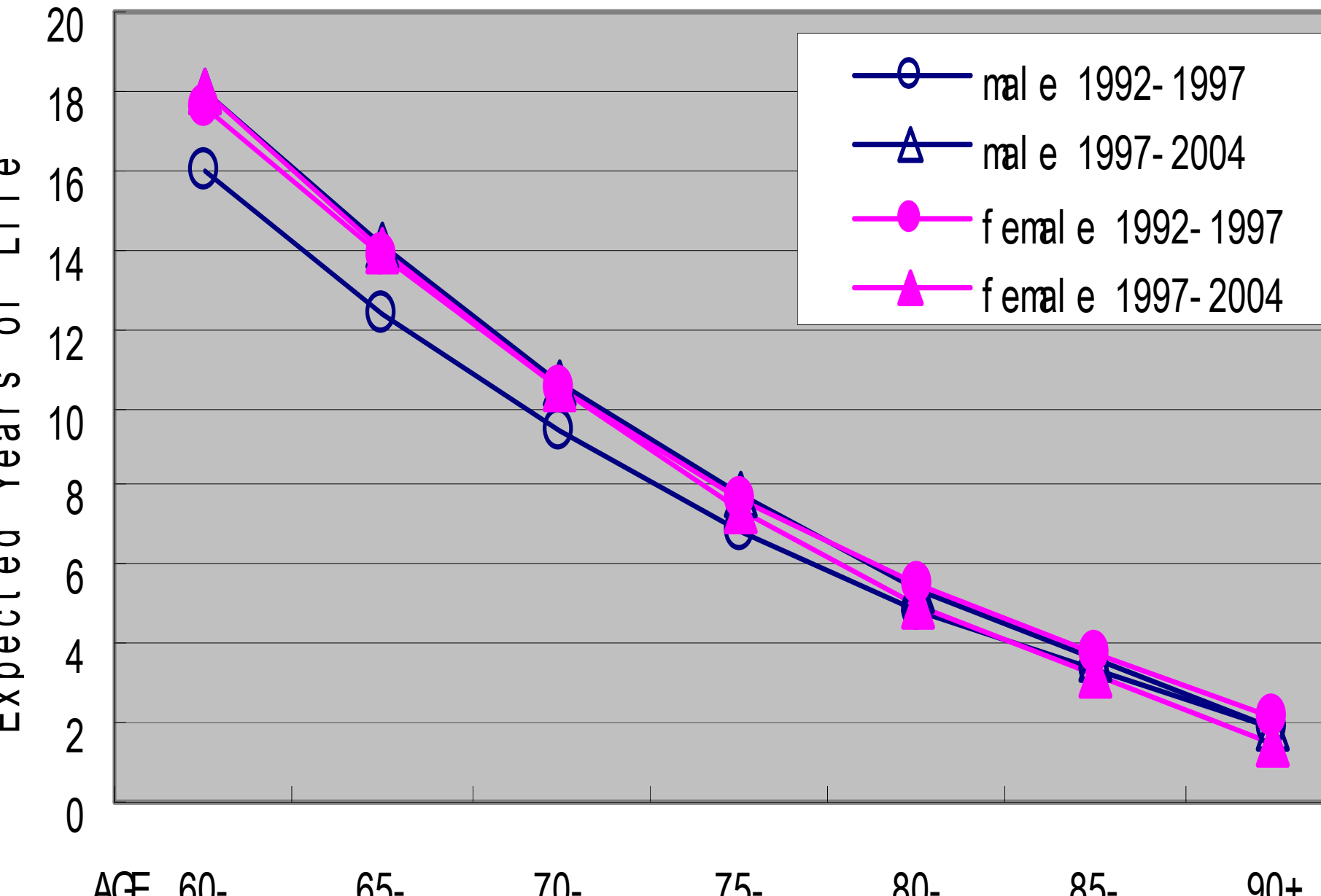
Rural versus Urban:

- Urban elders have higher ALE than rural elders**
- No improvement in ALE among females in urban areas, and ALE among the oldest-old females in urban areas actually decreased over time.**

Rural ALE



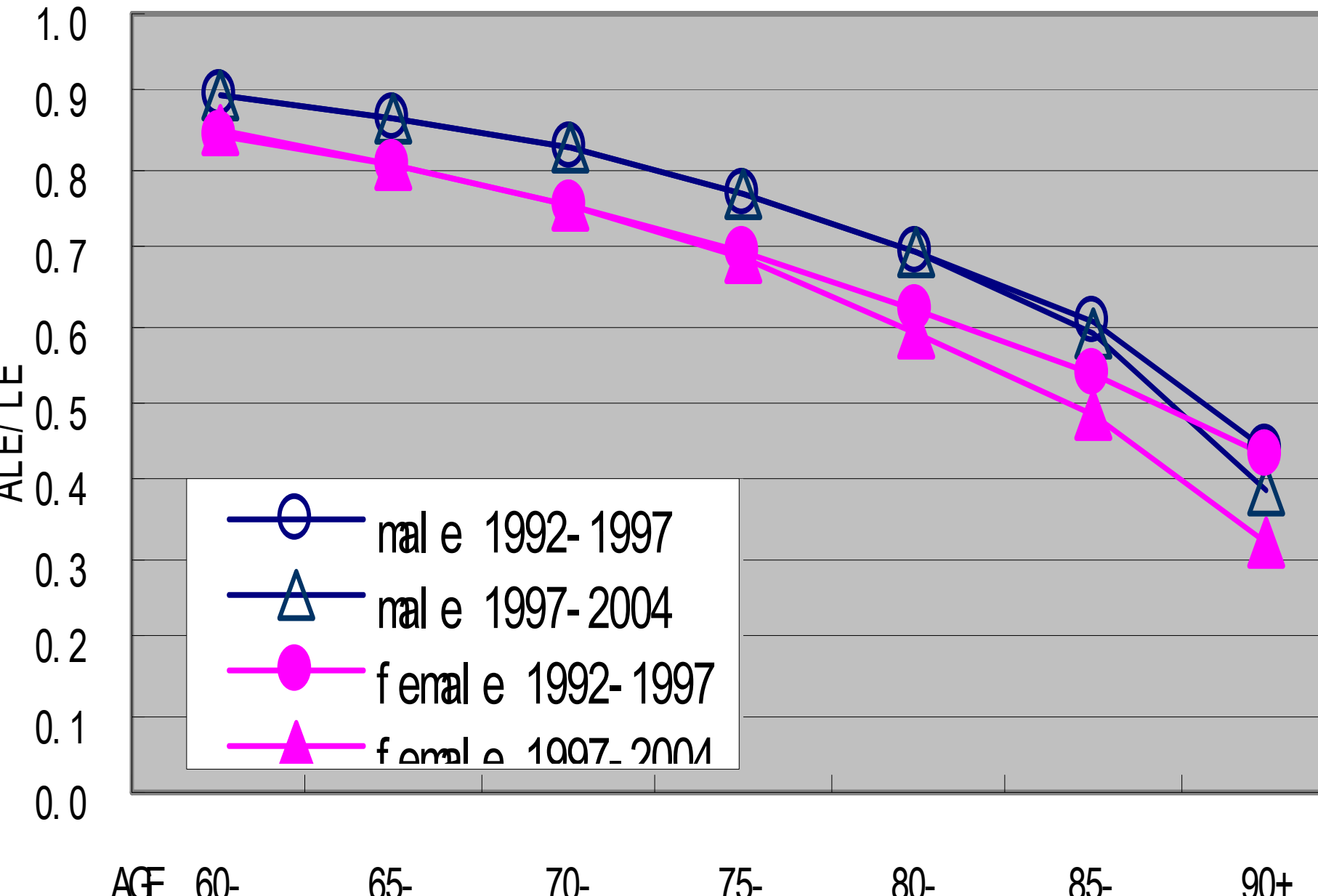
Urban ALE



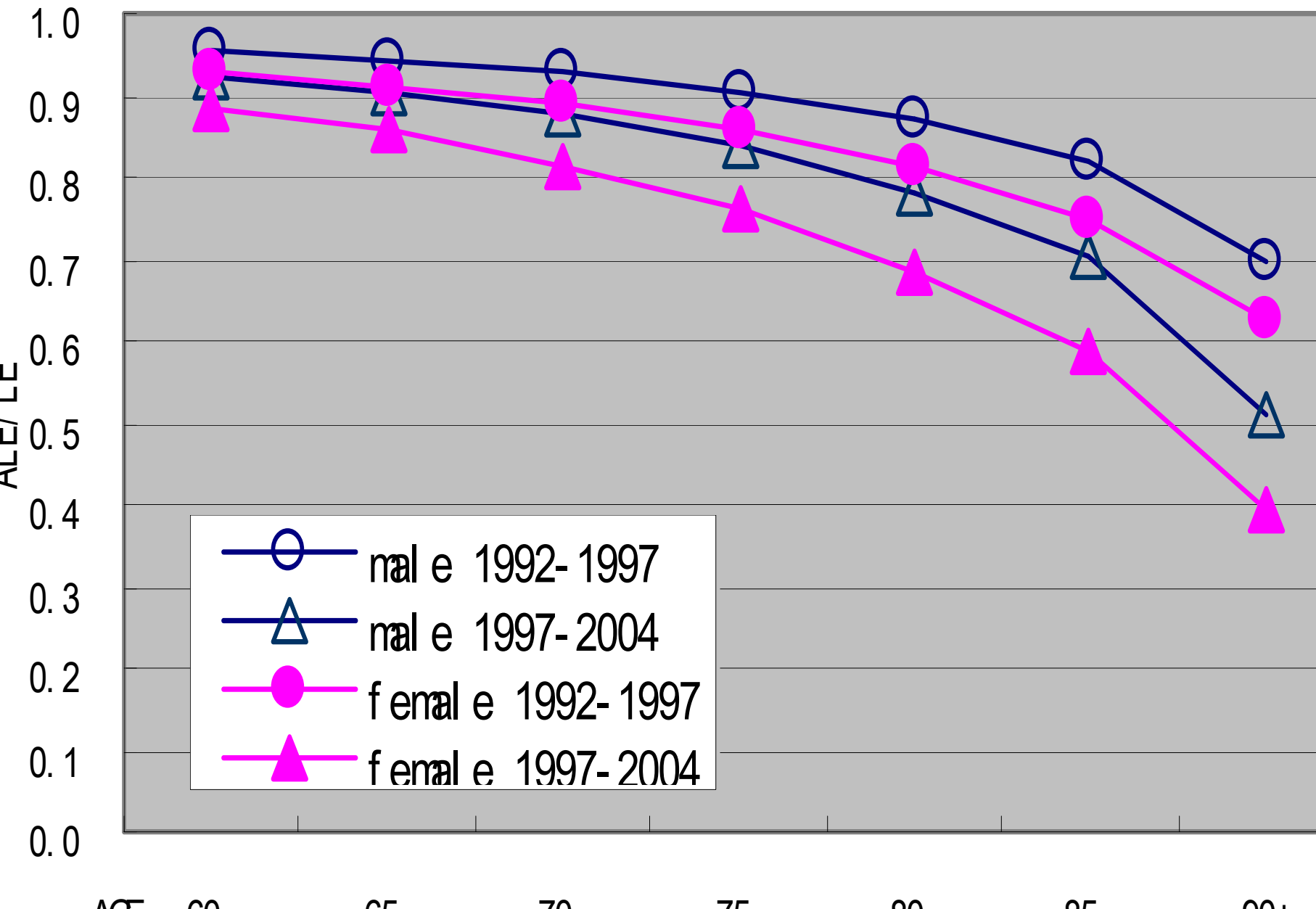
Summary of Ratio of ALE/LE Findings

- 1. Ratio is higher in urban areas than rural areas**
- 2. Although women live longer, the male ratios are higher**
- 3. Although both LE and ALE generally increased from 1st to 2nd period, decreases in the ratio are found among most groups: notably urbanites and the oldest-old**
- 4. This latter result suggests that life is getting longer but most of the extra years are spent inactive**

Rural ALE/LE



Urban ALE/LE



Conclusion

- LE and ALE represent quantity versus quality of life in old-age
- Measures of ALE can reflect absolute quality, that is, years spent active, or relative quality, that is, the proportion of of total life
- This study examined ALE in both absolute and relative terms

General Findings

- * Urban elders have much higher LE, ALE and ALE/LE ratios than urban elders**
- * The urban/rural difference are most noticeable when looking at years of active life, and when looking at the the oldest-old**
- * Women live longer than men, but their proportion of time active is shorter**

Findings Comparing Periods

* LE increased from 1st to 2nd period. Increase is greatest among males and younger elders

* Change in ALE differs across sex. For males, ALE increases are fairly consistent across age groups. For women, the increase is only apparent in younger elders. Oldest-old women actually experienced a decline in ALE

* ALE/LE ratios do not change much in rural areas, except among oldest-old women. In urban areas, ratio decrease, but more so for women

Comments

- **Results of current study are consistent with a previous study (Tang et al. 2003) showing risk of functional decline over time is greater among rural elders and among women.**
- **Prevalence of dementia and cognitive functioning disorder was found to be higher among females and rural elders.**
- **This could explain why females and rural elders have shorter ALE and lower ratio of ALE/LE**
- **Results are also consistent with Kaneda et al. (2004) who showed ALE to be related to SES. Being female and living in rural areas, relates to lower SES**

Implications

1. Better medical insurance and health service in urban areas may help the elderly live longer. But, results here show proportional increase in inactive life is greatest in urban areas, at least among female and oldest-old. So, while quantity of life may be increasing, the same may not be true for quality.

2. More attention needs to be paid to females and the oldest-old

3. Health care needs to pay more attention to chronic disease prevention and intervention with an emphasis to reduce disability and assist rehabilitation.

This will help to increase ALE and the ratio of ALE/LE.

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