Demographic transition, family change and elderly poverty: China 2002-2005

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August 30 2008

Objectives of this paper

The paper attempts to investigate the relationship between demographic transition, family change and poverty (health status and loneliness) among the elderly age 65+ in transitional China. Drawing on both qualitative and quantitative data, and comparing different groups of the elderly population (urban vs. rural, male vs. female, etc.) in poverty, it aims to shed light on a better understanding of the demographic determinants of the elderly poverty, while taking into account the important role of social welfare and a large set of socioeconomic and environmental factors in elderly life. Ultimately, we hope to draw societal and governmental attention to scientific studies and practical program interventions for reducing the poverty, enhancing the wellbeing and the quality of life of the elderly in general and those in the countryside in particular.

Demographic transition and family change

The past three decades have witnessed dramatic demographic transition from high fertility and mortality to very low fertility and low mortality in the early stage of industrialization and urbanization in China due to birth planning programs (particularly the one-child policy) and socioeconomic development. People get married late, make frequent moves, have fewer children, and live a longer life, which have changed population age structure by raising the proportion of the elderly in the total population, and thereby generating the phenomenon of rapid population aging. In 1982, the elderly population age 60+ accounts for only 5 percent of China's total population (Hesketh et al. 2005), 8 percent in 1990, and over 10 percent in 2000. Similarly, people ages 65+ accounts for 7 percent of the total population in 2000, and over 8 percent in 2005 (Zhang 2007).

Changes in fertility and mortality, and population age structure and redistribution have all contributed to the changes in family structure and living arrangements. The number of children affects family structure by affecting the pool of eligible adult children and the presence or absence of male children to live with parents, the sense of obligations for supporting parents and household living conditions. Married children's own reproductive behavior could also affect their demands for coresidence.

Mortality shapes parental availability (i.e., the number and proportion of the elderly in households). Meanwhile, decreasing income and worsening health in old age make coresidence attractive to elderly people in the context without much extra-familial or institutional support.

Poverty of the elderly

Thus, population change would have profound impacts on the poverty of different segments of population. It might reduce the poverty of the youth, but exacerbate the risk of poverty among the elderly. Due to the age structure, it is likely that the number of the elderly living in poverty will substantially grow even if the share of people in poverty remains the same (Qiao and Chen 1999). The low and unequal coverage in public pension systems leaves many without adequate financial resources, and the increasing population mobility, changing social attitudes and smaller family size weaken informal support (Beinstein 2002). Many elderly will be left inadequately supported or unsupported at all, even if challenges can be offset by improved public support, easier transfer of resources over larger distances and increased wealth (Beinstein 2002).

However, while the economic wellbeing of the elderly has caught government and academic attention, social poverty, including health status and loneliness, has been largely ignored. How may they be related to macro-level demographic transition and meso-level household change in transitional China?

Data and methods

This paper uses both quantitative and qualitative data to explore the aforementioned relationships. The quantitative data come from the Chinese Longitudinal Healthy Longevity Survey (CLHLS), jointly conducted by Duke University and Peking University in 1998, 2000, 2002 and 2005, which is a longitudinal survey on the elderly. The survey is conducted in 22 provinces, municipalities and autonomous regions, covering 985 million people, 85 percent of China's total population. Based on our research purposes, we use the 2002 and 2005 survey data. Qualitative data come from the in-depth interview of Population Change and Elderly Poverty conducted in 2007, collected in six provinces in China.

The dependent variables include health status, coded as three categories: good (including very good and good health), "so so" and "poor" (including poor and very poor health), and loneliness, operationalized as not lonely, sometimes lonely, and frequently lonely. The independent variables, including key predictors and control variables are shown in Table 1.

Preliminary analytical results

Some preliminary results are presented as follows.

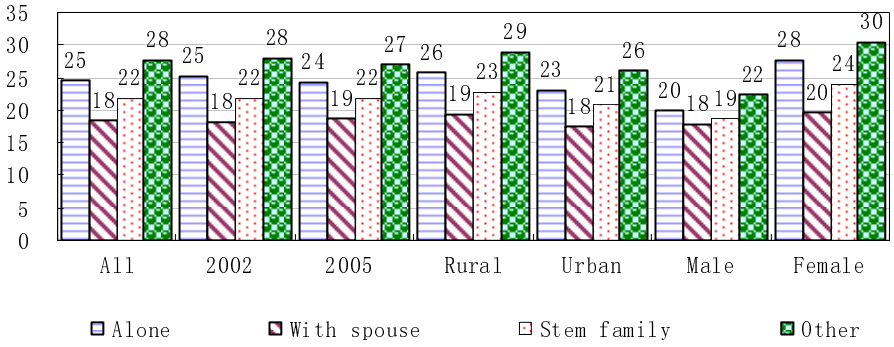

Figure 1 Cross-tabulation between Family Type and Living Arrangements and Poor Health Status (%)

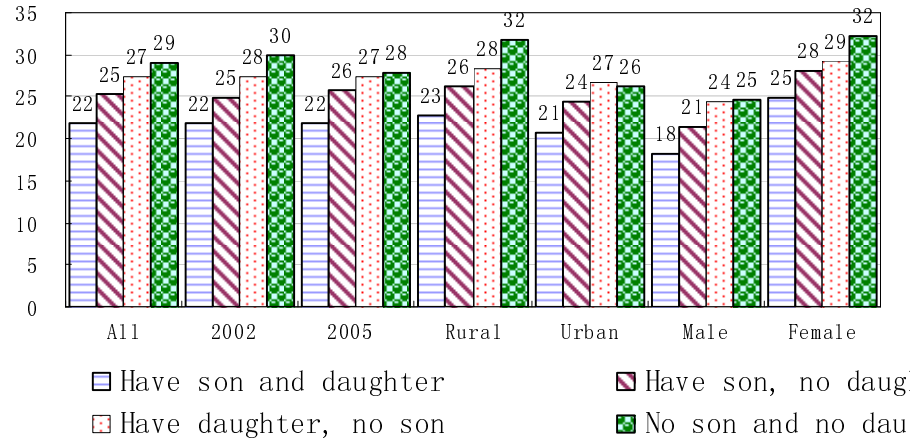

Figure 2 Cross-tabulation between Child Composition and Poor Health Status (%)

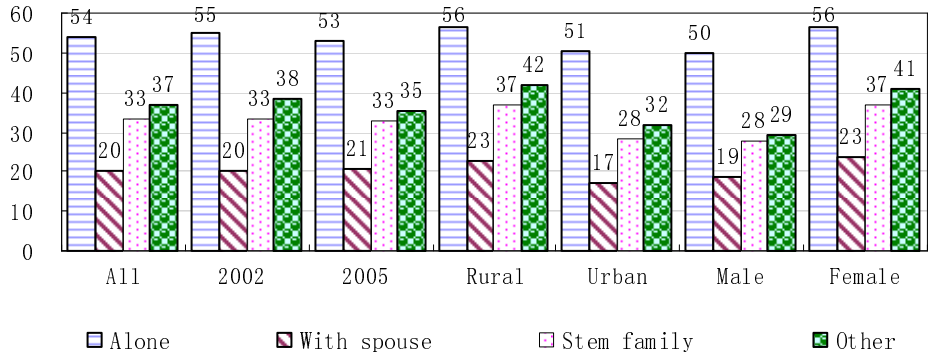

Figure 3 Cross-tabulation between Family Type and Living Arrangements and Frequent Loneliness (%)

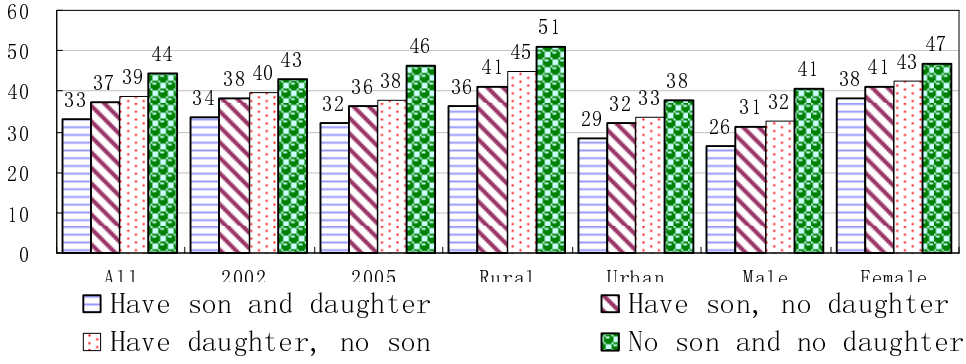

Figure 4 Cross-tabulation between Family Type and Living Arrangements and Frequent Loneliness (%)

Table 1. Logistic Regression Model Results for Health Status and Loneliness						
	Health Status			Loneliness		
Key predictors	Coef.		RSE	Coef.		RSE
Family structure						
Proportion of elderly in household	0.34	***	0.08	0.20	*	0.10
Family type and living arrangements(Alone=ref)						
With spouse	-0.01		0.09	-0.68	***	0.17
Stem family	0.19	^	0.10	-0.59	**	0.19
Other	0.17		0.11	-0.60	***	0.17
Child composition(Have son and daughter=ref)						
Have son, no daughter	0.09		0.06	0.04		0.03
Have daughter, no son	0.03		0.07	0.06		0.06
No son and no daughter	-0.06		0.11	0.24	*	0.12
Child support(0 yuan=ref)						
1-500 yuan	-0.26	**	0.08	-0.07		0.09
501-1000 yuan	-0.20	*	0.09	-0.08		0.10
Over 1000 yuan	-0.20	*	0.08	-0.04		0.08
Payer of medical cost(Public medicare=ref)						
Self	-0.34	***	0.08	0.02		0.13
Child/family	0.01		0.08	0.10		0.13
Other	-0.21	^	0.11	0.19		0.19
Community elderly services						
Daily caring service	-0.02		0.05	-		-
Home service	0.01		0.07	-		-
Psychological comforting	-0.03		0.06	-		-
Health care education	-0.06		0.08	-		-
Psychological comforting	-		-	-0.05		0.08
Social and entertaining activity	-		-	0.09		0.09
Daily shopping	-		-	0.01		0.07
Live in elderly house	-0.14	*	0.07	-0.11		0.12
Control variables						
<= 75	-0.19	**	0.06	0.03		0.06
Han ethinicity	0.29	*	0.13	-0.17	**	0.06
Widowed	-0.13		0.06	0.53	***	0.06
Education (Illiteracy=ref)						
Primary school	0.09		0.05	0.01		0.06
Middle school+	0.18	*	0.08	0.04		0.05
Health status(Good=ref)						
So so	-		-	0.01		0.06
Poor	-		-	0.19	*	0.08
Inadequate daily living source	0.78	***	0.05	-		-
Personality index	-0.17	***	0.01	-0.46	***	0.01
Live style						
Smoke in the past	0.07		0.04	-0.12	*	0.06
Drink	-0.36	***	0.04	0.00		0.04
Exercise	-0.44	***	0.07	-0.09	*	0.04
Urban-sex composite measure (Rural male=ref)						
Urban male	0.12	**	0.05	-0.07		0.08
Rural female	0.04		0.06	0.01		0.07
Urban female	0.19	**	0.06	-0.24	**	0.09
2005 survey				-		-
Intercept 1	-2.90		0.29	-9.31		0.43
Intercept 2	-1.30		0.29	-7.29		0.41
Log pseudolikelihood	-15061.11			-12795.35		
Wald chi2(21)	6788.33			594.48		
Pseudo R2	0.09			0.25		
N	15620			15638		
Note: 2005 CLHLS. ***p<0.001； **p<0.01； *p<0.05.						