

# Chinese Women in Italy – Menarche, Pregnancy and Maternity

Lisa Argnani<sup>1</sup>, Stefania Toselli<sup>2</sup> and Emanuela Gualdi-Russo<sup>1</sup>

<sup>1</sup> Department of Natural and Cultural Resources, University of Ferrara, Ferrara, Italy

<sup>2</sup> Department of Experimental Evolutionary Biology, University of Bologna, Bologna, Italy

## ABSTRACT

*The purpose of this study was to assess the well-being and health status of Chinese immigrant women in Italy. The subjects (mean 29.5 years) frequented the »Health Center for Foreign Women and their Children« in Bologna, Italy. Information on living conditions, biological characteristics and pregnancy or maternity was obtained through interviews of the women in the Center during normal medical visits. Data on menarche age were based on the retrospective method since all the women were in China at the onset of menarche. Social factors influencing the health and behavior of Chinese women in Italian society are discussed. The analysis on children sex ratio at birth indicates that the old cultural Chinese tradition of son preference still continues to exist. These women have achieved a socio-economic improvement and generally good health status in Italy. The difficult living conditions they faced in China are indirectly reflected in their delayed puberty (14.4±1.4 years). The delayed sexual development was probably due to the same situation of severe poverty that forced them to migrate.*

**Key words:** age at menarche, immigration, China

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## Introduction

Italy is one of the main new destinations of Chinese immigration to southern Europe. Chinese people are the fifth largest immigrant group in Italy (about 57,000 individuals<sup>1</sup>) and the third largest in Bologna (northern Italy), with about 3000 people living in the city<sup>2</sup>. The Bologna commune has made great progress in improving the health of foreign women

and children in the last decade, with new and easily accessible health services, like the »Health Center for Foreign Women and their Children« (established in 1991).

Human health and well-being have a complex multifactor nature, particularly within the new Italian multi-ethnic context. An analysis of the status of recent female migrants from China could lead to

a better understanding of the people involved in the migration process.

The age at menarche is a very reliable biological indicator of ecological and social influences and thus of a population's general well-being. The onset of menstruation is the beginning of a female's biological maturity and reproductive capacity. Secular trend in age at menarche or differences in this age among contemporaneous samples have often been attributed to environmental factors. The age at menarche has declined in both developed and developing countries in recent years<sup>3–6</sup> and China is no exception<sup>7–9</sup>. Moreover there are still differences in age at menarche according to the place of residence (urban-rural environments) in China<sup>7,10</sup>. In view of the wide variation in living conditions of Chinese people, it would be interesting to examine this biological marker in women forced to leave China in search of a better life. The age at menarche has decreased in the Italian population during the last century in both urban and nearby rural environments as a consequence of the general improvement in the standard of living<sup>11–14</sup>.

The main aim of this study was to assess several female characteristics related to important biological aspects (from age at menarche to pregnancy and maternity) in order to obtain some indications of the socio-cultural conditions of a sample of young women who recently immigrated to Italy from rural areas of Zhejiang province.

## Subjects and Methods

The sample consists of 458 Chinese women, living in Italy for about 4 years (on average). The subjects are from the same region, Zhejiang Province (southeastern China), and belong to the Han ethnic group, the main one in China. Each woman was interviewed at the »Health Center for Foreign Women and their

Children« in Bologna, Italy, during a medical examination of her or her child.

A cultural mediator helped the women fill in the questionnaire, as they did not speak Italian.

The questions dealt with the subject's chronological age, the number of years living in Italy, the level of knowledge of Italian, educational level, work activity, work hours, home conditions and number of cohabitants.

The following terms described the home conditions: »good conditions« refer to a house with bathroom and kitchen, heating, good illumination and normal humidity; »bad conditions« refer to a house with outdoor bathroom, heating only in the kitchen, poor illumination and high humidity. All other situations were classified as »intermediate«.

The following obstetric-gynecological information was obtained: menarche age, number of deliveries and abortions, age at first delivery and its modality, sex of the children and birth order.

The retrospective method<sup>5,15</sup> was the only available source of information for the assessment of age at menarche. All of the women had reached menarche in China. The cultural mediator, working at the Foreign Women's Health Center, helped us to convert the age at menarche from the Chinese lunar calendar to the Western one.

In order to make temporal comparisons among women sub samples from different birth cohorts (about 34% of women were born during 1971–75; 32% of them before this interval; 34% of them after this interval), we compared the ages at menarche of the three women sub samples by ANOVA, considering 0.05 as the probability level of significance. Linear regression analysis was used to determine if there was a significant association ( $p < 0.05$ ) between biological or socio-cultural variables.

## Results and Discussion

Data on the biological and reproductive history and on immigration obtained from the sample of Chinese women are reported in Tables 1–4.

The average young Chinese woman examined at the Center has lived in Italy

**TABLE 1**  
MEAN MENARCHEAL AGE IN THREE  
SUBSAMPLES OF CHINESE MIGRANT WOMEN  
LIVING IN BOLOGNA

Year of birth	$\bar{x}$	SD	MIN	MAX
=1970	14.9	1.5	12.5	18.0
1971–1975	14.3	1.9	13.0	19.0
>1975	14.1	1.3	12.0	18.0

for only a few years; she has generally been pregnant and perhaps has had an abortion. As a consequence of China's family planning program promoting the delay of marriage to age 23 for women<sup>9</sup>, her first delivery was not precocious. Deliveries were generally eutocic and at full term (93% of the total). The health care of the woman and her child are assured by frequent and regular medical checkups at the Center.

The home conditions are usually good, but the young Chinese woman frequently lives with other people of the same nationality – sometimes at the same place where she works. The »community family«, consisting of several cohabiting couples, is rather frequent in the Chinese community<sup>16</sup>. The poor or complete lack

**TABLE 2**  
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF CHINESE WOMEN WHO IMMIGRATED TO BOLOGNA

Variables	$\bar{x}$	SD	MIN	MAX
Chronological age (yrs)	29.5	5.7	18	53
Years in Italy	4.1	2.7	0	18
Working hours	8.7	1.7	4	17
Number of cohabitants	4.9	2.1	1	13

**TABLE 3**  
SOCIO-CULTURAL CHARACTERISTICS AND LIFE CONDITIONS OF CHINESE WOMEN LIVING IN BOLOGNA

Variables	% frequency	Variables	% frequency
Italian language knowledge		House conditions	
No	84	Good	72
Bit	15	Intermediate	21
Yes	1	Bad	7
Education		Occupation	
None	7	Housewife	27
Grammar school	17	Workwoman	57
Junior high school	70.5	Craftswoman	11
Senior high school	4.5	Else	5
Degree	1		

**TABLE 4**  
REPRODUCTIVE HISTORY OF CHINESE  
MIGRANT WOMEN LIVING IN BOLOGNA

Variables	X	SD	MIN	MAX
Delivers	1.5	0.7	0	4
Abortions	0.5	0.7	0	6
Age at first delivery	24.9	4.1	17	40

of knowledge of Italian and the middle-low educational level mean that she is forced to take only manual labor – sometimes for an excessive number of hours per day.

In China, an abnormal sex ratio at birth has been recorded even in recent times<sup>17,18</sup>. It is a consequence of the family planning program and is related to the traditional patriarchal ideology and different social functions of males and females. Traditional Chinese medical practice is highly accurate in identifying the fetal sex<sup>17</sup>, which allows the realization of the strong preference for sons. There is no particular sex ratio discrepancy in the Chinese sample living in Bologna, with 49.51% of sons. Nevertheless the sex ratio at birth fluctuates around parity (Figure 1), suggesting that there are possible arrangements after the birth of the first child and that childbearing stops when the goal is approached. Moreover although

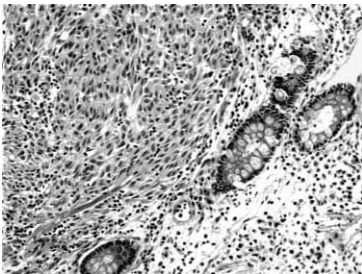


Fig. 1. Sex ratio vs birth order in children of Chinese women interviewed.

the Chinese »one-child policy«<sup>19</sup> does not exist in Italy, the Chinese immigrants still want at least one son to continue the family name, to help work and later to care for the elderly parents, since daughters will marry out of the family.

Since 1949, a significant acceleration in growth and development of Chinese children was reported<sup>20</sup> with a decline in menarche age. Also if we did not observe significant differences in the menarche ages among the sub samples of women with different birth age, a tendency to a decreasing in age at menarche resulted (Table 1). Moreover, comparing the average age of menarche of the youngest sub sample with that of Chinese contemporaries<sup>20</sup>, a two years earlier onset of menstruation resulted in the last ones (mean age = 12.5 yrs). Although statistical methodologies differ across the studies, analogous results were observed in the comparison with data of the Chinese national survey of 1985 for the rural population of Zhejiang Province<sup>21</sup>. In this case there is about one year of difference, the age at menarche being earlier in the sample from the literature (median age = 13.62 yrs) than in the sample of Chinese women who immigrated to Italy.

Delayed sexual maturation in the Chinese immigrants is also confirmed by other comparisons with literature data<sup>8–10,22</sup>. The same environmental and socio-economic factors that caused the trend toward decreasing age at menarche in China could explain the differences among selected samples from the same Chinese province. Numerous determinants of the onset of menarche have been assessed in rural Chinese environments<sup>9</sup>, from pesticide exposure to heavy physical labor. Since we did not have such information for our sample, we assumed that the delayed age at menarche (14.4±1.4 years) in the Chinese women living in Bologna was the result of poor socio-economic condi-

**TABLE 5**  
CORRELATION (R) AND REGRESSION (R<sup>2</sup>) COEFFICIENTS BETWEEN VARIABLES OF THE BEHAVIORAL SEQUENCE OR BETWEEN SOCIO-CULTURAL INDICATORS AND BIOLOGICAL TRAITS

Independent variable vs. dependent variable	r	r <sup>2</sup>
Year of birth vs. age at menarche	-0.26279**	0.069061
Year of birth vs. age at 1 <sup>st</sup> pregnancy	-0.12921	0.016696
Age at menarche vs. age at 1 <sup>st</sup> pregnancy	0.424355	0.180078
Education vs. age at menarche	-0.25122**	0.063113
Education vs. age at 1 <sup>st</sup> pregnancy	0.180609	0.032620

\*\* p<0.01

ons, the same conditions that forced them to leave China.

In addition to possible associations between biological events and indicators of socio-cultural and economic status (level of education vs. age at menarche or vs. age at first delivery), we also searched for significant correlations among the year of birth, age at menarche and age at first delivery, according to a clear behavioral sequence<sup>23</sup> (Table 5). In our study the year of birth and level of education of woman – an useful indirect indicator of socio-economic conditions, when data on parents education and occupation are lacking- proved to be significant variables for the menarche onset, according to previous studies on Chinese population<sup>9</sup>.

The profound socio-cultural and economic changes experienced by these Chi-

nese immigrants to Italy will probably influence their future behavior, lifestyle and characteristics. Thus, it is important to continue to monitor and improve their health and quality of life. This will provide support in the transition from traditional customs, which may result in an abnormal sex ratio at birth, to modern ones. It will also promote a better integration of these women into their new society, while fully respecting their Chinese values and beliefs<sup>24</sup> and bio-cultural diversity.

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*S. Toselli*

*Department of Experimental Evolutionary Biology, Unit of Anthropology,  
University of Bologna, via Selmi 3, 40126 Bologna, Italy;  
e-mail: toselli@alma.unibo.it*

## **KINESKINJE U ITALIJI – MENARHA, TRUDNOĆA I MAJČINSTVO**

### **SAŽETAK**

Svrha ove studije bila je ocijeniti blagostanje i zdravstveni status žena iz Kine koje su migrirale u Italiju. Ispitanice (srednje starosti od 29,5 godina) su posjetile »Zdravstveni centar za žene iz inozemstva i njihovu djecu«, u Bologni, Italija. Tijekom posjeta centru kroz razgovor su dobiveni podaci o uvjetima življenja, biološkim osobinama i trudnoći ili majčinstvu. Podatak o menarhi je dobiven retrospektivno, jer su sve žene bile u Kini u doba menarhe. Razmatrani su socijalni čimbenici koji utječu na zdravlje i ponašanje žena u društvu u Italiji. Analiza omjera spolova pri porodu ukazuje na postojanje stare Kineske tradicije, koja preferira sinove. Žene koje su doselile iz Kine pokazuju socio-ekonomski napredak i uglavnom su boljeg zdravstvenog stanja u Italiji. Teški životni uvjeti kojima su izložene u Kini indirektno se reflektiraju na njihovoj kasnijoj pojavi puberteta (14,4±1,4 godina). Zakašnjeli spolni razvoj vjerojatno je uzrokovao istim činiteljima koji su ih prisilili na emigraciju.