

# **SURVEY REPORT ON**

## **CONTRACEPTIVE PREVALENCE RATE IN TAMIL NADU - 2005**



**Demographic & Evaluation Cell**

**DIRECTORATE OF FAMILY WELFARE**

**Chennai - 600 006**

**TAMIL NADU, INDIA**

## **A SURVEY REPORT ON CONTRACEPTIVE PREVALENCE RATE IN TAMIL NADU - 2005**

### **INTRODUCTION:**

The population growth rate is continuously declining in Tamil Nadu from 1971 onwards. The Decennial Growth rate during 1971 census was 22.3 percent and then it has declined to 17.5%, 15.39% and 11.72% in the subsequent census years of 1981, 1991 and 2001 respectively. Reorganized family welfare programme provide sterilization and temporary contraceptives to the eligible couples in Tamil Nadu from 1970 onwards. Due to family welfare services in the State, nearly 2.58 crores of births were averted up to March 2006. The couple protection rate is another indicator to examine the effectiveness of the family welfare programme. As such couple protection rate is estimated every year based on the service statistics and attrition rate formulated by Government of India. The couple protection rate has been declining for the past ten years. It may be an under estimate, because the attrition rate used to estimate the couple protection rate was calculated long back. Hence, the actual couple protection rate has to be measured among the eligible couples. Therefore, an alternative method of estimating the effect of contraceptive services by its prevalence rate is felt necessary. The contraceptive prevalence rate is defined as **'the extent of contraceptive use among a defined population group'**. In this regard, a survey to estimate contraceptive prevalence rate as on 31.3.2005 has been conducted in all the 30 districts during June 2005.

### **OBJECTIVES OF THE STUDY:**

The major objective of the study is to estimate the **contraceptive prevalence rate** in Tamil Nadu. However, this study examines the other background variables such as number of eligible couples per 1000 population, children wise and age wise proportion of eligible couples, family welfare acceptors /non-acceptors in urban-rural areas etc.

**SAMPLING DESIGN:**

The minimum sample size required for the State to study the contraceptive prevalence rate with 95% confident level ( $p = 0.5$  and  $d = 0.01$ ) is estimated as 9604 eligible couples or 60,000 population. In each district a minimum of 2000 population has been selected to conduct the study. The rural and urban sample has been selected based on the proportion of rural, urban population in 2001 census.

**SURVEY TOOL:**

A well-defined schedule has been developed after a series of discussions by the Directorate officials headed by the Demographer. The draft schedule has been pre-tested in Urban Health Post of Chennai area and required modification has been done.

**METHODOLOGY:**

In each district, the survey has been conducted in one Health Sub Center (HSC) in rural area and one ward in urban area. The HSC and ward have been chosen from the Primary Health Centres (PHCs) and the urban areas by the Demographic and Evaluation (D&E) Cell of the Directorate of Family Welfare by using random number and communicated to all districts. The selected PHCs and HSCs have been arranged in alphabetical order and the first HSC has been selected for the survey. In the selected HSC, the villages are arranged in alphabetical order and the required population has been selected from the villages. In urban area, the wards are arranged in alphabetical order according to population or in ascending order of the wards are named by I, II etc. and the wards are selected by random number. The streets in the selected wards are arranged in alphabetical order according to population and the streets are selected till the required population is completed.

## **6. TRAINING:**

The Statistical Assistants (SA) working in the District Family Welfare Bureau (DFWB) are nominated as supervisors. One day training to all SAs have been given by the D&E Cell officials in 4 regional centers on 20.6.2005. For conducting fieldwork, four Block Health Statisticians (BHS) have been identified in each district by the respective SAs as field investigators. The field investigators have been given one day training on 21.6.2005 in the respective district head quarters by the Statistical Assistants.

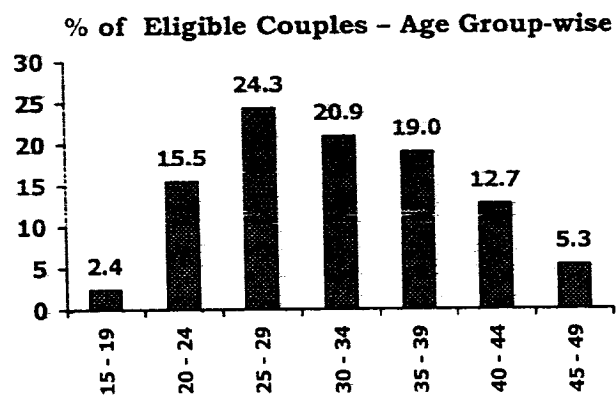
## **7. FIELDWORK AND SUPERVISION:**

The fieldwork has been done by the investigators from 22.6.2005 onwards for a period of 5 days. The eligible couples were contacted at their residence by the investigator under the supervision of the Statistical Assistant. Each investigator has contacted a minimum of 25 households per day. The District Statistical Assistant has supervised the fieldwork on all the days in rural and urban areas. After the completion of the survey, the D&E Cell officials visited the districts to verify the fieldwork.

## **8. ANALYSIS AND DISCUSSION:**

The sample includes 65,608 population with 11,442 eligible couples. The break-up of eligible couples by residence shows that there are 6711 rural samples and 4731 urban samples. The sex ratio of the overall population is estimated as 984 females per 1000males, which is close to the census figure of 987. Whereas this ratio among urban and rural populations are 991 and 979 respectively.

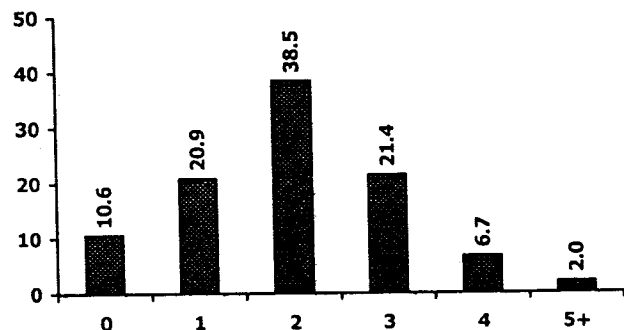
The classification of eligible couples by age groups reveals that there are 2.9 percent eligible couples in rural and 1.6 percent among urban and combined 2.4 percent belong to 15-19 age group. This shows the existence of adolescent



marriage in general and rural areas in particular. It is also noted that there are 40% of eligible couples in the prime age group of reproductive years (15.5 percent) in 20-24 and (24.3percent) in 25-29 years. This percentage is 16.9 and 23.9 for rural and 13.5 and 24.8 for urban respectively. About 5% of the eligible couples are in the age group of 45-49 years. This shows that about 1% of the eligible couples are crossing the reproductive span every year.

The percentage distribution of eligible couples by number of living children explores that 10.6 percent of the eligible couples having no living children. It is seen that 10 percent belong to the rural sample and 11.5 percent belong to the urban sample. Couples

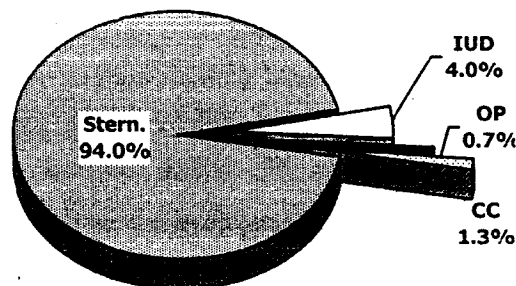
**% of Eligible Couples -No. of Living Children-wise**



having one child are 20.9 percent. One child couples are higher in urban areas (23.7 percent) than in rural areas (18.9 percent). Likewise, couples with two children are 38.5 percent. Two children couples are more in urban areas (42.3 percent) than in rural areas (35.8 percent). Total couples with one and two children constitute 59.4 percent. The couples with three and more children are 30.1 percent. This percentage is higher in rural areas (35.3 percent) than in urban areas (22.6 percent), which shows that higher

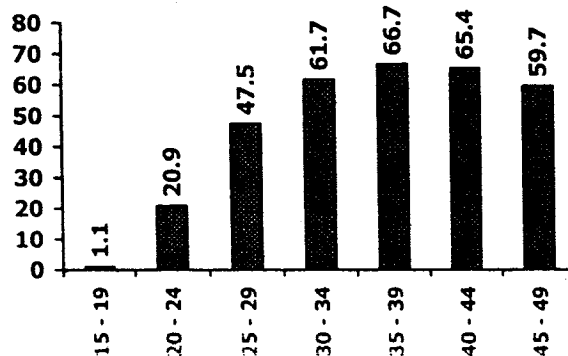
order couples are more in rural areas. The average number of living children is found to be 2.1 for rural, 1.81 for urban and 2.0 for the whole sample, which is similar to the estimate of Sample Registration System data.

The overall contraceptive prevalence rate for the sample is worked out to 55.3 percent. The contraceptive prevalence rate is found high (55.8 percent) in rural areas than in urban areas (54.6 percent). Among the rural sample, 53.4 percent are covered by sterilization, 1.5 percent by IUD, 0.4 percent by oral pills and 0.5 percent by condom. Whereas 49.7, 3.4, 0.4 and 1.0 percent respectively are covered under sterilization, IUD, OP Users and CC Users in urban areas. Among the family welfare acceptors, sterilization is the most popular method of contraception which constitutes 94% of the CPR and other temporary methods like IUD, OP and condoms are 4%, 0.7% and 1.3% respectively.



The break-up of sterilization acceptors by age group elucidate that 1.1 percent of the couples in the age group 15-19, 20.9 percent in the age group 20-24, 47.5 percent in the age group 25-29, 61.7 percent in the age group 30-34, 66.7 percent in the age

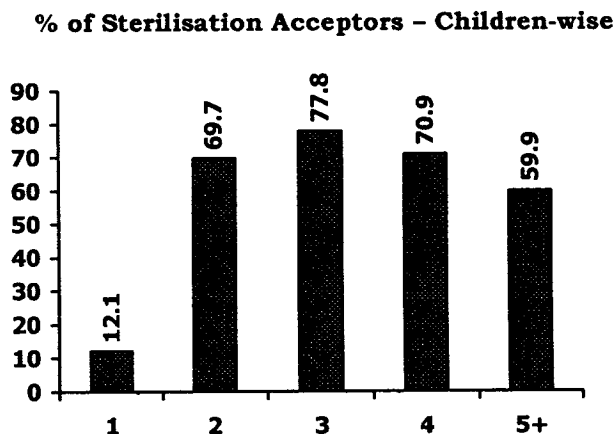
**% of Sterilisation Acceptors - Age Group-wise**



group 35-39, 65.4 per cent in the age group 40-44 and 59.7 percent in the age group 45-49 are protected under sterilization. It is seen that among the couples in the age group of more than 30 years, more than 60 percent of them are protected under sterilization. In the age group 35-39, most of the

couples in the sample (66.7 percent) accepted sterilization. This percentage is higher in rural sample (70.1 percent) than in urban sample (61.9 percent).

The average number of living children is found to be 2.6 among sterilization acceptors in rural areas, 2.4 among urban couples and 2.5 among total eligible couples both in rural and urban areas. The distribution of sterilization acceptors shows that 12.1 percent of the couples with



one child, 69.7 percent of couple with two children, 77.8 percent of couples with three children, 70.8 percent of couples with four children and 59.9 percent of couples with five and above children have undergone sterilization.

The practice of birth spacing method particularly IUD is very low in the sample. There are only 2.3 percent covered by this method. This percentage is higher in urban areas (3.4 percent) than in rural area (1.5percent). The IUD acceptors among the specified age group shows that 1.1 percent in the age group 15-19, 4.2 percent in the age group 20-24, 3.4 percent in the age group 25-29, 2.4 percent in the age group 30-34, 1.2 percent in the age group 35-39, 0.5 percent in the age group 40-44 and 0.3 percent in the age group 44-49. The IUD acceptor with one child represents only 6.5 percent, with two children represents 1.8 percent and with three and more living children represents 2.1 percent. These percentage is slightly higher in urban than in rural areas. The higher acceptance of IUD in urban areas shows that the awareness about IUD is more in urban areas than in rural areas.

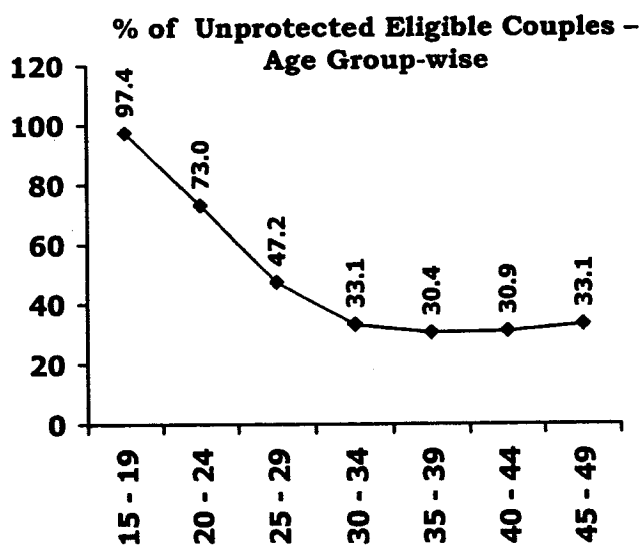
The coverage of other birth spacing methods shows that only 0.4 percent is covered by oral pills and 0.7 percent by condoms. It is a great

concern to the programme managers. Steps are being taken to improve spacing methods by improving IEC activities in the State.

The percentage of eligible couples adopting natural method is 1.4. This is higher in urban areas (2.7%) than in rural areas (0.4%). The percentage of eligible couples with one child who have the practice of natural method of contraception is 5.2 for urban area and only 0.5 for rural area. The percentage is lesser among the couples with two or more children.

It is also noted that among the total eligible couples, 97.4 percent among the age group 15-19, 74 percent among the age group 20-24, 47 percent among the age group 25-29, 33 percent among the age group 30-34, 30.4 percent among the age group 35-39, 30.9 percent among the age group 40-44 and 33 percent among the age group 45-49 have not accepted any contraceptive method.

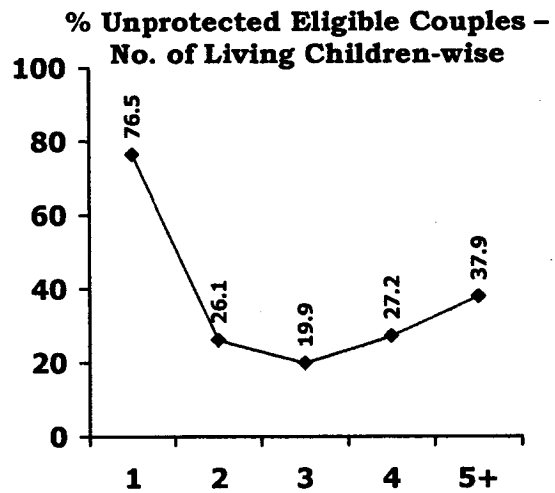
The classification of unprotected eligible couples in the rural areas shows that 97.4 percent among 15-19, age group 73.0 percent among 20-24 age group, 47.2 percent among 25-29 age group, 33.1 percent among 30-34 age group, 30.4 percent among 35-39 age group, 30.9 percent



among 39-44 age group and 33.1 percent among 45-49 age group are not protected by any method of contraception. There is not much difference between urban and rural couples in the sample. Unprotected eligible couples in the fertile age group of 25-29 and 30-34 have to be covered under a family welfare method, which is suitable to them.



The eligible couples by number of living children shows that 76.5 percent among with one child, 26.1 percent among with two children, 19.9 percent among with three children, 27.2 percent among with four children and 37.9 percent among with five and more children are unprotected. The difference between urban and rural is marginal.



The distribution of unprotected eligible couples by number of living children and age group in rural areas reveals that the percentage of unprotected eligible couples among with one child is higher in the age group 20-24 (12.5 percent), followed by 25-29 (9.8 percent). Similarly the unprotected eligible couples with two children are higher in 25-29 years age group (7.6 percent), followed by 20-24 (4.8 percent). The unprotected eligible couples are more among with three children in the age group 25-29 (3.2 percent) and with four children and above in the age group 30-34 (2.1 percent). These eligible couples should be given more importance to be covered by any one of the family welfare methods.

The unprotected eligible couples in urban areas by age and number of living children shows that eligible couples among with one child in the age group 25-29 (13.0 percent), with two children in the age group 25-29 (5.6 percent), with three children in the age group 35-39 (2.2 percent) and with four and above children in age group both in 35-39 (0.9 percent) and 35-39 (0.9 percent) are unprotected. Above all, unprotected eligible couples are, in general, high among the couples with two children (22.7 percent) and with three children (8.4 percent). These unprotected eligible couples should be protected under permanent method. The unprotected eligible couples with

one child are (39.4%). These unprotected eligible couples should be protected under any one of spacing methods.

Further the study also found out that 24.3 percent among the unprotected eligible couples are without child. The unprotected eligible couples without a child with less than 3 years of married life constitute 16.8% and more than 3 years constitute 7.4%. More than 5% of the couples are primary sterile women where their marriage has taken 5 years back and need doctor's advice. Among the unprotected eligible couples, about 39% of the couples having the last child age of more than 5 years. These couples may attain secondary sterility and the chances for giving birth to another child is very less.

#### **9. SUMMARY AND CONCLUSION:**

- ❖ The contraceptive prevalence rate is 55.3 percent for the whole sample, which represents the state. It is 55.8 percent for rural and 54.6 percent for urban areas.
- ❖ The coverage of eligible couples under sterilization (51.9%) is found high when compared to spacing methods (3.4%).
- ❖ The unprotected couples are generally high among the couples with two children (22.7%), followed by three children (8.4%) with the exception of one child (39.4%).
- ❖ The unprotected couples are found high in the age group 20-24 and 25-29 by percentage and numbers. This is due to the low level of practice of birth spacing methods in general and particularly among the couples with one child.
- ❖ It is also a great concern to increase the acceptability of birth spacing methods among the couples with one child.
- ❖ The average number of living children for sterilization acceptors in the sample is 2.5. It is 2.6 for rural and 2.5 for urban Tamil Nadu.

- ❖ The average number of living children for the whole sample is only 2.0 and for the urban, rural sample is 1.8 and 2.1 respectively.
- ❖ The prevalence of adolescent marriage is evident from the couples in the age group 15-19 (2.4 percent). This percentage is higher (2.9 percent) among rural sample than among urban sample (1.6 percent).
- ❖ Above 30 percent of the eligible couples in the age of 30 and above in the sample are not covered by any method of contraception.

**In conclusion**, the contraceptive prevalence rate is 55.3 percent in Tamil Nadu. The urban- rural difference shows that the prevalence rate is high (55.8 percent) in rural than in urban (54.6 percent) sample. This study also shows great potential to increase contraceptive prevalence rate in the state, as there are considerable number of non-acceptors in all age groups. The practices of birth spacing methods are very less among potential eligible couples with one child. It needs further effort to increase the acceptability of birth spacing methods at the earliest. The average number of living children to the eligible couples in the rural, urban samples are 2.1 and 1.8 respectively. It is 2.0 living children for the state. This shows that Tamil Nadu is progressing towards Population Stabilization.

#### **HIGHLIGHTS OF THE STUDY**

Contraceptive Prevalence Rate - 2005	55.3%
Contraceptive Prevalence under Terminal method	51.9%
Contraceptive Prevalence under spacing methods	3.4%
Average number of living children to the eligible couple	2.0
<b>Tamil Nadu is progressing towards Population Stabilization</b>	

**TABLES**

**Population Size:**

<b>Indicators</b>	<b>Rural</b>	<b>Urban</b>	<b>Total</b>
Population	38843	26765	65608
Eligible Couples	6711	4731	11442
Eligible Couples per 1000 population	173	177	174
Sex Ratio	979	991	984

**Age wise percentage of Eligible Couples:**

<b>Age group of Eligible Couples</b>	<b>Age wise percentage of Eligible Couples</b>		
	<b>Rural</b>	<b>Urban</b>	<b>Total</b>
15 - 19	2.9	1.6	2.4
20 - 24	16.9	13.5	15.5
25 - 29	23.9	24.8	24.3
30 - 34	17.9	20.5	19.0
35 - 39	21.0	20.8	20.9
40 - 44	12.4	13.2	12.7
45 - 49	5.1	5.5	5.3
Total	100.0	100.0	100.0

**Children wise percentage of eligible couples:**

<b>Number of living children</b>	<b>Percentage of Eligible Couples</b>		
	<b>Rural</b>	<b>Urban</b>	<b>Total</b>
0	10.0	11.5	10.6
1	18.9	23.7	20.9
2	35.8	42.3	38.5
3	23.8	17.9	21.4
4	8.8	3.6	6.7
5+	2.7	1.1	2.0
Total	100.0	100.0	100.0

**Contraceptive prevalence rate:**

Methods	Residence wise CPR		
	Rural	Urban	Total
Sterilisation	53.4	49.7	51.9
IUD	1.5	3.4	2.3
Oral Pills	0.4	0.4	0.4
Condoms	0.5	1.0	0.7
<b>Total</b>	<b>55.8</b>	<b>54.6</b>	<b>55.3</b>

**Percentage of age specific sterilization acceptors:**

Age group of Eligible Couples	% of age specific sterilization acceptors		
	Rural	Urban	Total
15 - 19	1.0	1.3	1.1
20 - 24	20.0	22.5	20.9
25 - 29	50.1	44.1	47.5
30 - 34	63.6	59.4	61.7
35 - 39	70.1	61.9	66.7
40 - 44	69.5	59.9	65.4
45 - 49	66.5	50.8	59.7

**Percentage of children specific sterilization acceptors:**

Number of living children	% of children specific sterilization acceptors		
	Rural	Urban	Total
1	12.6	11.6	12.1
2	68.6	71.1	69.7
3	78.6	76.5	77.8
4	70.1	73.7	70.9
5+	60.9	56.6	59.9

**Age wise IUD Acceptors:**

Age group of Eligible Couples	% of age specific IUD acceptors		
	Rural	Urban	Total
15 - 19	1.5	0.0	1.1
20 - 24	3.8	5.0	4.2
25 - 29	1.8	5.5	3.4
30 - 34	1.3	3.7	2.4
35 - 39	0.7	1.8	1.2
40 - 44	0.1	1.1	0.5
45 - 49	0.0	0.8	0.3

**Children wise IUD Acceptors:**

Number of living children	% of children specific IUD acceptors		
	Rural	Urban	Total
1	4.5	8.8	6.5
2	1.4	2.4	1.8
3	0.6	1.3	0.8
4	0.2	1.2	0.4
5+	1.1	0.0	0.9

**Eligible couples adopting Natural Method:**

Number of living children	% of E.Cs adopting Natural Method		
	Rural	Urban	Total
1	0.5	5.2	2.7
2	0.6	2.7	1.5
3	0.2	1.4	0.6
4	0.5	0.6	0.5
5+	0.0	0.0	0.0

**Age Specific percentage of Unprotected Eligible Couples:**

Age group of E.Cs	Age Specific % of Unprotected E.Cs		
	Rural	Urban	Total
15 - 19	97.4	97.3	97.4
20 - 24	74.8	69.8	73.0
25 - 29	47.2	47.1	47.2
30 - 34	32.7	33.6	33.1
35 - 39	27.8	34.2	30.4
40 - 44	30.0	32.1	30.9
45 - 49	33.5	32.4	33.1

**Children Specific percentage of Unprotected Eligible Couples:**

Number of Living Children	Children Specific % of Unprotected E.Cs		
	Rural	Urban	Total
1	81.2	71.2	76.5
2	28.8	23.0	26.1
3	19.9	19.9	19.9
4	28.1	24.0	27.2
5+	36.3	43.4	37.9

**Age wise and Children wise unprotected Eligible Couples in Rural:**

Age Group	% unprotected E.Cs with number of living children					
	Zero	One	Two	Three	Four & Above	Total
15-19	4.1	2.1	0.3	0.0	0.0	6.5
20-24	10.2	12.5	4.8	1.2	0.1	28.7
25-29	3.9	9.8	7.6	3.2	1.1	25.6
30-34	1.5	3.4	3.8	2.5	2.1	13.3
35-39	1.3	3.5	4.2	2.4	2.1	13.5
40-44	1.0	2.1	2.4	1.3	1.6	8.4
45-49	0.3	1.1	0.7	0.9	1.0	3.9
<b>Total</b>	<b>22.3</b>	<b>34.4</b>	<b>23.8</b>	<b>11.5</b>	<b>7.9</b>	<b>100.0</b>

**Age wise and Children wise unprotected Eligible Couples in Urban:**

Age Group	% unprotected E.Cs with number of living children					
	Zero	One	Two	Three	Four & Above	Total
15-19	2.8	0.7	0.1	0.0	0.0	3.6
20-24	10.1	9.2	2.3	0.5	0.0	22.2
25-29	7.1	13.0	5.6	1.6	0.0	27.3
30-34	2.7	6.1	4.8	1.6	0.7	15.9
35-39	1.7	5.9	5.4	2.2	0.9	16.2
40-44	1.3	3.3	3.2	1.7	0.9	10.3
45-49	0.7	1.2	1.4	0.7	0.7	4.6
<b>Total</b>	<b>26.4</b>	<b>39.4</b>	<b>22.7</b>	<b>8.4</b>	<b>3.2</b>	<b>100.0</b>

**Age wise and Children wise unprotected Eligible Couples (Combined):**

Age Group	% Unprotected E.Cs with number of living children					
	Zero	One	Two	Three	Four & Above	Total
15-19	3.6	1.5	0.2	0.0	0.0	5.3
20-24	10.2	11.1	3.8	0.9	0.0	26.0
25-29	5.2	11.1	6.8	2.6	0.7	26.3
30-34	2.0	4.5	4.2	2.1	1.5	14.4
35-39	1.5	4.5	4.7	2.3	1.6	14.6
40-44	1.1	2.6	2.7	1.5	1.3	9.2
45-49	0.5	1.1	1.0	0.8	0.8	4.2
<b>Total</b>	<b>24.0</b>	<b>36.4</b>	<b>23.4</b>	<b>10.2</b>	<b>6.0</b>	<b>100.0</b>



