AGING COEFFICIENT IN DIFFERENT RELIGIOUS GROUPS IN IRAN

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Abstract

Aging Coefficient (A.C.), or aged - child ratio, is the number of individuals aged 65 years and over, divided by the number of individuals aged 0-14, multiplied by 100.

In this point - discriptive study, the aging coefficient have been calculated for the followers of four different religions, for the past four respective decades, according to sex and locality.

Overall age composition in different religious groups, in a decreasing order, is: Christians, Jews, Zoroastrians and Moslems.

The Christians have shown the highest and most continuous increase of A.C. followed by the Jews. Zoroastrians showed a slight decrease in the 80's and a higher increase afterward.

Moslems show a more consistant mode, but with a slight increase in the last decade; but in all cases A.C. has been lower than 15, presenting a higher proportion of a young population or lower aged group.

The increase of AC in each group can be caused by the old age survival , ie. increasing life expectancy, or decreasing birth rate.

Introduction

Biological factors have become the aim of recent population studies. Qualitative specificantions of populations in geographical analyses are considered as one of the most distinctive elements.

As the historical reviews testify to the importance of ethnic divisions, religion is one of the most studied aspects of the Iranian populations (6).

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Aging coefficient or aged-child ratio in every population is the number of individuals over 65 years old divided by the number of 0-14 years olds, multiplied by 100 (1). In fact, aging coefficient shows the number of variations of the two ends of population distribution curve. It indicates the age structure of the population under study and is used in the health programmes, anthropological and ethnological studies, industry, economy, education, nutrition and agriculture.

99.5 percent of the population of more than 60 millions, scattered throughout Iran, are followers of Islam (5,6).

Followers of Christianity (about 80,000) are the second highest religious group, consisting of Armenians, who have migrated from Armenia to north of Iran (Azarbaijan) and later on to Tehran and central Iran (Isfahan); and Assyrians, who have migrated from present Iraq to southern Iran (Khouzestan) and later on to Tehran and Azarbaijan (5).

The Iranian Jews (about 13,000) were originally brought from Babylon, by Cyrus, to Iran. Central provinces of Iran have absorbed most of the Jews (5).

Zoroastrians (about 28,000) , the great majority of the Iranian population until the time of enhancement of Islam, have been reduced , gradually converting to Islam, to a small minority. In the present time they live mostly in the central and south eastern provinces of Iran. During the past centuries, many of them have migrated to the eastern countries such as India and Pakistan, mostly in two waves, as Parsies (older group) and Iranies (the later migrants)(5).

Other religious minorities and sects (1: 1000) live in the central, southern and western provinces (6), but due to very low numbers, have been omitted from this study.

Materials and methods

The present study is a cross sectional - descriptive type, comparing the aging coefficients in Iran during four decades, in 1966, 1976, 1986 and 1996, respectively (2,3,4,5).

Populations under study were Moslems, Christians, Jews and Zoroastrians living in Iran, in urban and rural areas.

Tables 1 to 4 show the numbers of individuals over 65 and those between 0-14 years old in 4 decades.

Aging coefficient was categorised and compared acoording to the place of residence (urban or rural) and sex.

Since in this investigation sampling was not used and the whole populations were counted for, total numbers and given, but only percentages are

used for comparisons.

Results and discussions

Census taken in four consequetvie decades, 1966,1976,1986 and 1996, were categorized and analysed for aging coefficients.

Tables 1 to 4 show the aging cofficients in followers of different religions, according to place of residence (ubran or rural) and sex. The following conclusions can be drawn from the results:

Total aging coefficient of Moslems shows a relatively steady continuation from 8.30, in 1966, to 10.87 in 1996.

The total A.C. of Zoroastrians shows a decrease in 1986 and again slightly higher in 1976.

In Jews, total aging coefficient shows a steady increase from 13.58, in 1966, to 42.32, in 1996.

Christians show the most continuous increase among the groups considered, from 18.92 to 59.19 during the four decades.

In general, it can be said that the aging coefficient varies from Christians to Jews, Zoroastrians and Moslems in a decreasing order (Fig. 1).

Socio-cultural and economic factors, food habits, 8 years of war (1979-1987), health and medical care are considered to influence the health status, ie. the birth and death rates, of different social and religious groups.

Other than birth and death rates, variations in the age structure of a society depends on other factors, eg. migrations, to and fro. In countries like the United States of America and Australia, immigration is a strong factor to be considered. Of course, Iran in the past two decades, because of the revolution and then the 8 year war, has witnessed population dynamics, socio-cultural disturbances and diffusions. Reduction in birth rate has a stronger influence in changes of the age structure, since it decreases the younger categories in a direct fashion. It seems these two factors cause the large difference between the followers of different religions in Iran.

In addition to the above mentioned internal factors, the war in Afghanistan in the past 18 years has caused immigration of 3 to 4 million people to Iran, as the most refugee receiving country in the world.

After the revolution, the family planning policy was halted and therefore in 1980's the population growth rate was increased to the highest in the world, as more than 6%. In recent years, it has been recognized and highly controlled.

Table 1. Aging Coefficient in Different Religious Group in Iran, 1966

Religious Groups	Age	Total of U & R			Urbans			Rurals		
		T	M	F	T	M	F	T	M	F
Moslems	0-14	11450680	5973016	5477664	4228345	2139890	2008455	7223934	3794636	3429308
	65&UP	950107	505811	444296	229149	172686	156465	620954	333125	287829
	A.C.	8.30	8.47	8.11	5.42	8.11	7.46	8.60	8.78	8.39
Zoroastrian	0-14	6133	3012	3101	5034	2501	2533	1099	521	578
	65&Up	1608	806	801	1267	622	625	341	174	167
	A.C.	26.22	26.76	25.83	25.17	24.87	25.17	31.03	33.40	28.89
Jews	0-14	22500	11387	11113	21946	11099	10856	555	288	267
	65&UP	3056	1566	1490	2779	1489	1290	277	74	203
	A.C	13.58	13.75	13.41	12.66	13.42	11.88	49.91	25.69	76.03
Christians	0-14	50261	25518	24723	41677	21144	20533	8482	4392	4090
	65&UP	9509	4846	4662	8207	3905	5073	1302	712	590
	A.C	18.92	18.98	18.86	19.69	14.83	24.71	15.17	16.21	14.08

T: Total Male & Female , M: Males, F: Females, A.C: Aging Coefficient

Table 2. Aging Coefficient in Different Religious Group in Iran, 1976.

Religious Groups	Age	Total of U & R			Urbans			Rurals		
		T	M	F	T	M	F	T	M	F
Moslems	0-14	14922153	7774128	7148025	6421228	3333116	3088112	8500925	4440102	4060912
	65&UP	1165676	613492	552224	552987	255802	254185	554267	358207	296422
	A.C.	7.81	7.89	7.72	7.96	7.66	8.28	7.70	8.07	7.30
Zoorostrian	0-14	5901	3035	2816	5162	2413	2513	739	386	353
	65&Up	1649	883	766	1296	726	570	353	157	96
	A.C.	27.94	29.09	26.73	25.11	22.41	22.68	22.68	34.23	27.19
Jews	0-14	18581	9323	9158	17037	8569	8468	1444	754	690
	65&UP	3603	1979	1624	3323	1813	1510	280	166	114
	A.C.	19.39	21.23	17.73	19.50	21.16	17.83	19.39	22.02	16.52
Christians	0-14	44402	22725	21677	40443	20661	19782	3969	2004	1895
	65&UP	11919	6029	5890	10519	5164	5355	1400	865	535
	A.C	26.84	26.53	27.17	26.01	24.99	27.07	35.16	41.91	28.21

T: Total Male & Female , M: Males, F: Females, A.C: Aging Coefficient

Table 4. Aging coefficient in Different Religious Group in Iran, 1996.

Religious Groups	Age	Total of U & R			Urbans			Rurals		
		T	M	F	T	M	F	T	M	F
Moslems	0-14	23653341	12073832	11579509	13765758	7025430	6740328	9791827	5008411	4791416
	65&UP	2571975	1370964	1201011	1458490	745473	705017	1113787	620566	493191
	A.C	10.87	11.35	10.37	10.54	10.61	10.46	11.37	12.41	10.29
Zoroastrian	0-14	8833	4505	4328	6204	3190	3014	2619	1310	1309
	65&UP	2532	1260	1272	2166	1079	1087	365	180	185
	A.C	28.66	27.97	29.39	34.91	33.82	36.06	13.94	13.74	14.13
Jews	0-14	3511	1794	1717	3444	1762	1682	67	32	35
	65&UP	1486	774	712	1478	770	708	8	4	4
	A.C	42.32	43.14	41.47	42.91	43.70	42.09	11.94	12.50	11.43
Christians	0-14	16233	8320	7913	15815	8089	7726	418	211	187
	65&UP	9609	4610	4999	9168	4371	4797	440	238	202
	A.C	59.19	55.41	63.17	57.97	54.04	62.09	105.26	103.03	108.02

T: Total Male & Female , M: Males, F: Females, A.C: Aging- Coefficient

Table 3. Aging Coefficient in Different Religious Group in Iran, 1986.

Religious Groups	Age	Total of U & R			Urbans			Rurals		
		T	M	F	T	M	F	T	M	F
Moslems	0-14	22369162	10440166	10929296	11421641	5838419	4583232	10820173	5513617	5382556
	65&UP	1481479	758550	722929	776404	375597	400708	705174	382956	322221
	A.C	6.62	7.26	6.93	6.80	6.43	7.18	6.52	6.92	6.10
Zoroastrian	0-14	42918	21718	21200	24640	12493	12147	18119	9139	8980
	65&UP	5190	2338	3052	3526	1525	2011	1841	807	1034
	A.C	12.56	10.77	14.40	14.31	12.21	16.56	10.16	8.83	11.40
Jews	0-14	7088	3730	3568	7088	3624	3464	210	106	104
	65&UP	2053	1019	1034	2042	1016	1026	11	5	8
	A.C	28.96	27.32	28.98	28.81	28.03	29.62	5.24	1.83	7.69
Christians	0-14	22355	11461	10894	20626	10571	10055	1726	889	837
	65&UP	8409	3904	4505	7984	3682	4302	425	222	203
	A.C	37.62	31.44	41.35	38.71	34.83	42.78	24.62	24.97	24.25

T: Total Male & Female , M: Males, F: Females, A.C: Aging Coefficient

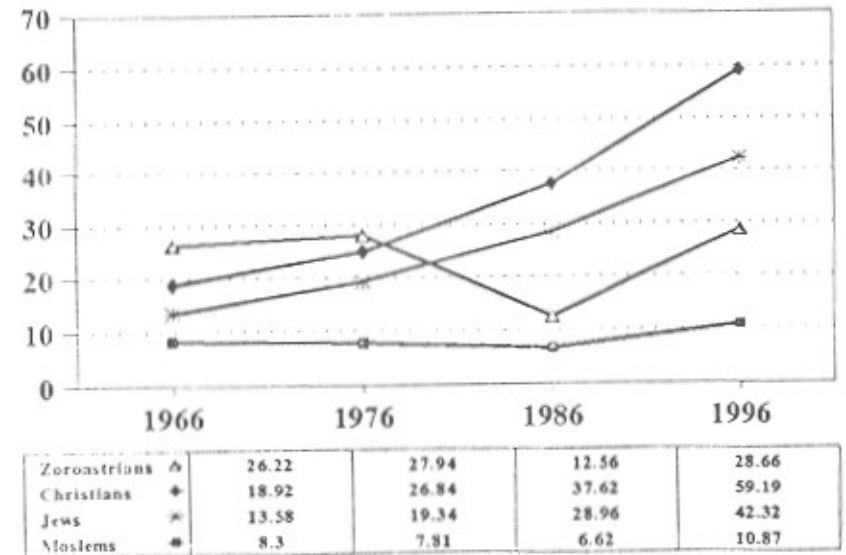|	1966	1976	1986	1996
Zoroastrians △	26.22	27.94	12.56	28.66
Christians ◆	18.92	26.84	37.62	59.19
Jews ✳	13.58	19.34	28.96	42.32
Moslems ●	8.3	7.81	6.62	10.87

Fig 1- Trend of Aging Coefficient (A.C) in different religious groups in Iran,
in four consequetive decades

Acknowledgement

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