



Twinning in the Palestinian Population of Jerusalem and the West Bank

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Although it is currently believed that the Palestinian population has relatively high twinning rates, to our knowledge no specific studies on this have yet been conducted. Therefore, and as a first step in our institutional program to develop medical and social care, as well as research programs specifically directed to twins in this area of the world, a number of observations have been conducted in order to gather estimates of twinning rates in the Palestinian population of East Jerusalem and the West Bank of the Jordan. This corresponds to the regions of Judea and Samaria, largely composed of small villages where most of the population lives, as well as a number of more important centers, such as Jenin, Nablus, Ramallah, Bethlehem, and Hebron.

Although we have, unfortunately, been unable to obtain vital statistics on the entire Palestinian population of the West Bank from the administrative offices of Judea and Samaria, information on total maternities and twin maternities by sex, for the period 1984-1988, was kindly provided by all Arab hospitals and maternity clinics in Jerusalem, and also by the United Nations Refugees World Agencies (UNRWA) with respect to the refugee camps.

The population we have studied, therefore, is limited to the Palestinians of East Jerusalem and the West Bank refugee camps, and corresponds to about one-third of the entire Palestinian population of the area. However, it does include both an urban setting (East Jerusalem) as well as a rural one (the refugee camps), and both Moslems and Christians, so it can be safely considered as representative of the entire Palestinian population. As for the period considered, we elected to limit our survey to the five-year period 1984-1988 because the records for then are considered to be more reliable than they had been previously, when little, if anything, was known on statistics, particularly on twin statistics relating to the West Bank population.

The results are shown in the Table. At first glance, a considerable difference appears in the twinning rates calculated on the Palestinian population of East Jerusalem and that of the West Bank. Absolute numbers are low, however, and the difference is not significant. The average value of 12.04, obtained for the entire period and the total popula-

Table - Twinning in Palestinians of East Jerusalem and the West Bank Refugee Camps, 1984-1988

Population and period	Multiple maternities (N)			Multiple maternities per 1000 total maternities
	Same sex	Opposite sex	Total	
<i>East Jerusalem</i>				
1984	61	33	94	12.60
1985	53	33	86	13.11
1986	44	39	83	11.26
1987	58	36	94	13.43
1988	68	45	113	14.52
1984-1988	284	186	470	12.99
<i>West Bank</i>				
1984	46	27	73	12.07
1985	29	27	56	9.24
1986	36	26	62	9.92
1987	44	30	74	11.58
1988	54	29	83	11.86
1984-1988	209	139	348	10.96
<i>Total</i>				
1984	107	60	167	12.36
1985	82	60	142	11.25
1986	80	65	145	10.65
1987	102	66	168	12.55
1988	122	74	196	13.26
1984-1988	493	325	818	12.04

tion, is in good agreement with the values of other Caucasian populations, though perhaps with less evidence of the decline that has affected the latter in recent decades. It should be noted, however, that our data are based on hospital maternities, among which multiple maternities are likely to be more frequent, although these days it has become common practice for women even in these populations to deliver in hospital.

Finally, an estimate of the respective rates of MZ and DZ twinning has been attempted, though necessarily based on Weinberg's method, which is known to be subject to bias, particularly with such small numbers. The resulting values are 9.57 for the DZ and 2.47 for the MZ rate, with an MZ:DZ ratio of 1:3.9. As tentative as the estimates may

be, these values are also in good agreement with the comparative values of other Caucasian populations.

As a second step in our institutional program, we also undertook a search of twin pairs in an effort to start a twin register and to conduct more specific studies based on direct examinations. Our search, specifically conducted in the Christian primary and secondary schools of East Jerusalem, Ramallah and Bethlehem, has thus far led us to identify a total of 40 twin pairs and 4 sets of triplets.

Family interviews have also been carried out, in most cases with the mothers. Some basic information has been collected, with special reference to family history of twinning and hormonal treatment for maternal infertility. Pedigrees have been constructed and a preliminary analysis of the information has been made. Although figures are still based on a small sample, it is interesting to note that family history of twinning is present in about 90% of cases, while hormonal treatments or previous contraceptive practice apply to about 18% of couples. The latter value may appear rather low, but it should be noted that the Arab society and customs do not generally encourage these kinds of treatments.

Further studies, and particularly an extension of the local twin register, are now being planned.

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