

QATAR

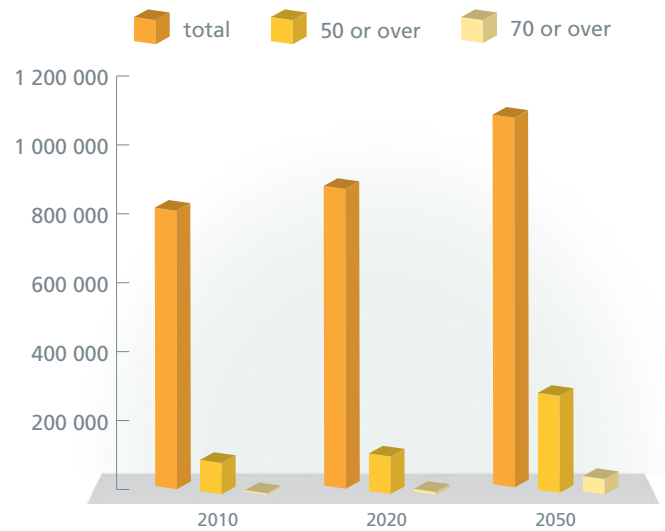
OVERVIEW

Little information is available about osteoporosis in Qatar and there is no IOF member osteoporosis society at present. Qatari society is similar to that of Saudi Arabia and based on Saudi studies and a Qatar study on vitamin D mentioned here below, it can be concluded that there is a high prevalence of vitamin D deficiency, particularly among the female population. As in many countries within the region, women are conservatively dressed with clothing that covers most of the body and there is low exposure to sunlight, despite sunshine all year. Furthermore, women lead a sedentary life and engage in very little outdoor activity. In addition to all this, there is low calcium intake, multiparity and prolonged periods of lactation.

KEY FINDINGS

The present population in Qatar is estimated to be 841 000, of this 11% (94,000) is 50 years of age or over and 0.6% (5000) is 70 or over. By 2050, it is estimated that 26% (293 000) of the population will be 50 or

FIGURE 1 Population projection for Qatar until 2050



REF US Census Bureau

over and 4% (46 000) will be 70 or over while the total population will increase to 1.1 million (fig 1).

TABLE 1 Comparison of the mean BMD measurements at spine (g/cm²) for Qatari females compared with Caucasian, Kuwaiti, Saudi and Lebanese females by decade of age

AGE GROUP	QATARIS	KUWAITIS	SAUDI ARABIA	LEBANESE	CAUCASIANS
20-29	1.159	1.210	1.131	1.100	1.196
30-39	1.164	1.238	1.155	1.113	1.210
40-49	1.149	1.200	1.109	1.103	1.180
50-59	1.065	1.098	1.038	1.017	1.102
60-69	0.918	1.008	0.993	0.953	1.015

TABLE 2 Comparison of the mean BMD measurements at femur (g/cm²) for Qatari females compared with Caucasian and Kuwaiti females by decade of age

AGE GROUP	QATARIS	KUWAITIS	CAUCASIANS
20-29	0.990	1.022	1.018
30-39	1.016	1.015	0.994
40-49	1.041	0.996	0.984
50-59	0.992	0.944	0.941
60-69	0.868	0.870	0.875

EPIDEMIOLOGY

In 2005 a cross-sectional study of 574 Qatari women aged between 20 and 69 years was carried out in Qatar using DXA scan to establish reference values of bone mineral density¹. Measurements were taken at the lumbar spine and proximal femur. The results showed that the Qatari subjects presented a decline in BMD at spinal sites with age after peaking at 30–39 years age group, and for femoral site at 40–49 years. The BMD values of the spine of Qatari women were lower than that of Caucasian and Kuwaiti women but higher than the Lebanese and similar to Saudi women. The BMD values of the total femur were higher in Qatari females than Caucasians, Kuwaitis, Lebanese and Saudis in the age group of 40–59, but lower in the age group 60–69 years (*table 1 and 2*).

The BMD data were examined in regard to the prevalence of osteoporosis and osteopenia. However, this study was conducted among ambulatory individuals with strict exclusion criteria and so does not represent the prevalence of osteopenia/osteoporosis in the country (*table 3*).

Hip fracture

No information available.

Vertebral fracture, other fragility fractures

No information available.

DIAGNOSIS

No information available.

REIMBURSEMENT POLICY

No information available.

CALCIUM AND VITAMIN D

In 2009, a study conducted among 458 Qatari children below 16 years of age demonstrated a prevalence of vitamin D deficiency among the studied population of 68.8%, mostly in the age group 11-16 years (61.6%)². There was a significant difference between vitamin D deficient and normal children as compared to their age ($P=0.013$). Vitamin D deficiency was more common among girls (51.4%) than boys (48.6%). The present study revealed that the prevalence of vitamin D deficiency is high in Qatari children and more common in Qatari girls. In the young population in Qatar, vitamin D deficiency appears to result from a combination of limitations in sunlight exposure and a low oral intake of vitamin D. Deficiency has also been observed in a cross-sectional study conducted among health care professionals working at Hamad Medical Corporation. It showed that the mean overall vitamin D level was 11.7 ng/ml. It was lower in females (10.3ng/ml) than males (13.7 ng/ml).

REFERENCES

1. Hammoudeh M et al. (2005) Bone density measured by dual energy X-ray absorptiometry in Qatari women. *Maturitas* 52: 319–327
2. Bener A et al. (2009) High prevalence of vitamin D deficiency in young children in a highly sunny humid country: a global health problem. *Minerva Pediatr.* Feb; 61(1): 15-22

TABLE 3 Prevalence of osteoporosis and osteopenia among the population studied following BMD measurement at spine and total femur according to age by decade¹

AGE GROUP	SPINE (L2-L4)		FEMUR	
	OSTEOPOROSIS (%)	OSTEOPENIA (%)	OSTEOPOROSIS (%)	OSTEOPENIA (%)
20-29	0.8	13.6	0.0	11.9
30-39	0.0	11.2	0.0	5.6
40-49	0.6	14.2	0.0	3.9
50-59	5.7	30.2	0.9	11.3
60-69	21.2	48.1	7.7	26.9