

MOROCCO
Last Updated: 2006-12-28

Level	Date	Region and sample descriptor	Sex	Age (years)	Sample size	Goitre prevalence (%)			Urinary iodine (µg/L)							Reference	Notes					
						Grade 1	Grade 2	TGP	Distribution (%)					Prevalence (%)			Median	Mean	SD	General	Line	
									<20	20-49	50-99	100-299	>300	<100								
LR	2003 -2004	<i>Brikcha commune: SAC by group: IS</i>	B	6.00 - 15.99	83										12.0			4899	*	1		
		<i>Brikcha commune: SAC by group: DFS</i>	B	6.00 - 15.99	75										10.0				*	2		
		<i>Brikcha commune: SAC by group: IS</i>	B	6.00 - 15.99	83			70.0												*	3	
		<i>Brikcha commune: SAC by group: DFS</i>	B	6.00 - 15.99	75			72.0												*	4	
LR	2001	<i>Brikcha commune: SAC by group: IS</i>	B	6.00 - 15.99	184										18.0			3530	*	5		
		<i>Brikcha commune: SAC by group: DFS</i>	B	6.00 - 15.99	183										16.0				*	6		
		<i>Brikcha commune: SAC by group: IS</i>	B	6.00 - 15.99	184			72.0											*	7		
		<i>Brikcha commune: SAC by group: DFS</i>	B	6.00 - 15.99	183			70.0											*	8		
N	1993	<i>National: SAC: Total</i>	B	6.00 - 12.99	281				2.8	20.3	39.9				63.0			491	*			
		<i>SAC by sex</i>	F	6.00 - 12.99	NS																	
		<i>SAC by sex</i>	M	6.00 - 12.99	NS																	
		<i>SAC by region: Atlantic Plains</i>	B	6.00 - 12.99	162											62.0						
		<i>SAC by region: Atlas</i>	B	6.00 - 12.99	71											72.0						
		<i>SAC by region: East</i>	B	6.00 - 12.99	10											10.0						
		<i>SAC by region: North</i>	B	6.00 - 12.99	22											59.0						
		<i>SAC by region: South/ South East</i>	B	6.00 - 12.99	12											83.0						
		<i>SAC by geographic region: Coast/Plains</i>	B	6.00 - 12.99	191											59.0						
		<i>SAC by geographic region: Mountains</i>	B	6.00 - 12.99	28											61.0						
		<i>SAC by geographic region: Plateau</i>	B	6.00 - 12.99	58											79.0						
		<i>National: SAC: Total</i>	B	6.00 - 12.99	1594															*		
		<i>SAC by sex</i>	F	6.00 - 12.99	793																	
		<i>SAC by sex</i>	M	6.00 - 12.99	801																	
		<i>SAC by age</i>	B	6.00 - 9.99	1040																	
		<i>SAC by age</i>	B	10.00 - 12.99	552																	
		<i>SAC by area: Urban</i>	B	6.00 - 12.99	819																	
		<i>SAC by area: Rural</i>	B	6.00 - 12.99	775																	
		<i>SAC by region: Atlantic Plains</i>	B	6.00 - 12.99	958																	
		<i>SAC by region: Atlas</i>	B	6.00 - 12.99	363																	
		<i>SAC by region: East</i>	B	6.00 - 12.99	64																	
		<i>SAC by region: North</i>	B	6.00 - 12.99	129																	
		<i>SAC by region: South/Southeast</i>	B	6.00 - 12.99	80																	
<i>SAC by geographic region: Coast/Plains</i>	B	6.00 - 12.99	1179																			
<i>SAC by geographic region: Mountains</i>	B	6.00 - 12.99	143																			
<i>SAC by geographic region: Plateau</i>	B	6.00 - 12.99	272																			
<i>SAC by province: Agadir</i>	B	6.00 - 12.99	64																			
<i>SAC by province: Al Hoceima</i>	B	6.00 - 12.99	32																			

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									<20	20-49	50-99	100-299	>300	<100							
N	1993	SAC by province: Azilal	B	6.00 - 12.99	49			36.7										491			
		SAC by province: Ben Slimane	B	6.00 - 12.99	16			6.3													
		SAC by province: Beni Mellal	B	6.00 - 12.99	61			44.3													
		SAC by province: Boulmane	B	6.00 - 12.99	16			12.5													
		SAC by province: Casa A. Chok HH	B	6.00 - 12.99	32			50.0													
		SAC by province: Casa Anfa	B	6.00 - 12.99	48			31.3													
		SAC by province: Casa Ben M'siks.oth	B	6.00 - 12.99	64			3.1													
		SAC by province: Casa HM Ain Sebaa	B	6.00 - 12.99	31			29.0													
		SAC by province: Chefchaouen	B	6.00 - 12.99	17			52.9													
		SAC by province: El Jadida	B	6.00 - 12.99	65			3.1													
		SAC by province: El Kelaa	B	6.00 - 12.99	48			39.6													
		SAC by province: Errachidia	B	6.00 - 12.99	16			6.3													
		SAC by province: Essaouira	B	6.00 - 12.99	16			12.5													
		SAC by province: Fes Jdid	B	6.00 - 12.99	16			12.5													
		SAC by province: Fes Medina	B	6.00 - 12.99	16			6.3													
		SAC by province: Fesz My Jacoub	B	6.00 - 12.99	32			21.9													
		SAC by province: Kenifra	B	6.00 - 12.99	29			58.6													
		SAC by province: Kenitra	B	6.00 - 12.99	64			10.9													
		SAC by province: Khemisset	B	6.00 - 12.99	32			9.4													
		SAC by province: Khouribga	B	6.00 - 12.99	32			6.3													
		SAC by province: Larache	B	6.00 - 12.99	31			77.4													
		SAC by province: Marrakech Chichaoua	B	6.00 - 12.99	32			28.1													
		SAC by province: Marrakech Menara	B	6.00 - 12.99	16			18.8													
		SAC by province: Marrakech SYBA	B	6.00 - 12.99	32			37.5													
		SAC by province: Meknes El Hajeb	B	6.00 - 12.99	16			50.0													
		SAC by province: Meknes El Menzeh	B	6.00 - 12.99	16			0.0													
		SAC by province: Meknes Ismailia	B	6.00 - 12.99	16			18.8													
		SAC by province: Mohammadia Znata	B	6.00 - 12.99	16			31.3													
		SAC by province: Nador	B	6.00 - 12.99	48			4.2													
		SAC by province: Oujda	B	6.00 - 12.99	16			6.3													
		SAC by province: Quarzazate	B	6.00 - 12.99	32			46.9													
		SAC by province: Rabat	B	6.00 - 12.99	64			3.1													
		SAC by province: Safi	B	6.00 - 12.99	64			3.1													
		SAC by province: Sale	B	6.00 - 12.99	48			0.0													
		SAC by province: Sefrou	B	6.00 - 12.99	16			1.0													
		SAC by province: Settat	B	6.00 - 12.99	48			4.2													
		SAC by province: Sidi Kacem	B	6.00 - 12.99	32			43.8													
		SAC by province: Skhirat Temara	B	6.00 - 12.99	16			0.0													

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									<20	20-49	50-99	100-299	>300	<100						
N	1993	SAC by province: Tanger	B	6.00 - 12.99	48			70.8										491		
		SAC by province: Tantan	B	6.00 - 12.99	16			0.0												
		SAC by province: Taounate	B	6.00 - 12.99	32			53.1												
		SAC by province: Taroudante	B	6.00 - 12.99	47			2.1												
		SAC by province: Tata	B	6.00 - 12.99	16			0.0												
		SAC by province: Taza	B	6.00 - 12.99	32			34.4												
		SAC by province: Tetouan	B	6.00 - 12.99	32			50.0												
		SAC by province: Tiznit	B	6.00 - 12.99	16			0.0												
D	1990	Province d'Azilal: SAC	B	10.00 - 14.99	120				34.7									3385	*	9
		Province d'Azilal: SAC: Total	B	10.00 - 14.99	600			65.2											*	
		SAC by sex	F	10.00 - 14.99	326			69.3												
		SAC by sex	M	10.00 - 14.99	274			60.2												

NOTES

MOROCCO

Reference no 4899

General Notes: *Sample comprised of SAC from 2 primary schools in the villages of Brikcha Rural Commune, an area of endemic goitre in the northern Morocco; all children 6-15 years from the schools participated; baseline data for intervention trial (dual fortification of salt with iodine and micronized ferric pyrophosphate); goitre investigated by ultrasonography, values not included in the database.*

Line note 1 IS: iodized salt

Line note 2 DFS: dual-fortified salt

Line note 3 IS: iodized salt, UI median range: 2.0-70.0 µg/L

Line note 4 DFS: dual-fortified salt, UI median range: 3.0-121.0 µg/L

Reference no 3530

General Notes: *Sample comprised of SAC from 2 primary schools in the villages of Brikcha Rural Commune, an area of endemic goitre in the northern Morocco; all children 6-15 years from the schools participated; baseline data for intervention trial (dual fortification of salt with iodine and microencapsulated iron); goitre investigated by ultrasonography, values not included in the database; same survey reported in reference No. 5425.*

Line note 5 IS: iodized salt

Line note 6 DFS: dual-fortified salt

Line note 7 IS: iodized salt, UI median range: 0.0-127.0 µg/L

Line note 8 DFS: dual-fortified salt, UI median range: 0.0-143.0 µg/L

Reference no 491

General Notes: *Three-stage cluster sampling; urinary iodine measured only for subsample (every 5th child).*

Reference no 3385

General Notes: *Sample comprised SAC; pilot study in the province of d'Azilal.*

Line note 9 UI <50 µg/L: 90.1%, UI >50 µg/L: 9.9%

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MOROCCO

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MOROCCO

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- Reference 5137** Zimmermann MB, Wegmuller R, Zeder C, Chaouki N, Torresani T. The effects of vitamin A deficiency and vitamin A supplementation on thyroid function in goitrous children. *Journal of Clinical Endocrinology and Metabolism*, 2004, 89 :5441-5447.
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