

ITALY
Last Updated: 2007-07-26

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								
R	2003P	<i>Piemonte and Aosta Valley regions: Men: Total</i>	M	18.00 - 18.99	3837													4909	*			
		<i>Men by province: Aosta</i>	M	18.00 - 18.99	116																	
		<i>Men by province: Biella</i>	M	18.00 - 18.99	170																	
		<i>Men by province: Cuneo</i>	M	18.00 - 18.99	626																	
		<i>Men by province: Novara</i>	M	18.00 - 18.99	350																	
		<i>Men by province: Torino</i>	M	18.00 - 18.99	2282																	
		<i>Men by province: Vercelli</i>	M	18.00 - 18.99	157																	
		<i>Men by province: Verbania</i>	M	18.00 - 18.99	136																	
		R	2003P	<i>Veneto region: SAC: Total</i>	B	11.00 - 14.99	1368															
<i>SAC by location: Plain towns</i>	B			11.00 - 14.99	387																	
<i>SAC by location: Mountain/pre-mountain</i>	B			11.00 - 14.99	961																	
<i>Veneto region: SAC</i>	B			11.00 - 14.99	1730	7.5	0.0	7.5												*		
S	2002 -2003	<i>Biella province: SAC by age</i>	B	8.00 - 12.80	NS									159.0				5608	*	4		
		<i>Biella province: SAC by age</i>	B	12.20 - 15.00	NS										150.0					*	5	
R	2002	<i>Piedmont region: SAC: Total</i>	B	11.00 - 15.99	2178																	
		<i>SAC by sex</i>	F	11.00 - 15.99	1065																	
		<i>SAC by sex</i>	M	11.00 - 15.99	1113																	
		<i>SAC by area: Urban</i>	B	11.00 - 15.99	NS																	
		<i>SAC by area: Rural</i>	B	11.00 - 15.99	NS																	
		<i>SAC by province: Asti</i>	B	11.00 - 15.99	NS																	
		<i>SAC by province: Cuneo</i>	B	11.00 - 15.99	NS																	
		<i>SAC by province: Turin</i>	B	11.00 - 15.99	NS																	
		<i>SAC by province: Verbania</i>	B	11.00 - 15.99	NS																	
		<i>Piedmont region: SAC: Total</i>	B	11.00 - 15.99	2178																	
		<i>SAC by area: Urban</i>	B	11.00 - 15.99	NS																	
		<i>SAC by area: Rural</i>	B	11.00 - 15.99	NS																	
		R	1999P	<i>SAC: Total</i>	B	8.00 - 10.99	847															
				<i>SAC by sex</i>	M	8.00 - 10.99	438															
<i>SAC by sex</i>	F			8.00 - 10.99	409																	
<i>SAC by area: Urban</i>	B			8.00 - 10.99	NS																	
<i>SAC by area: Rural</i>	B			8.00 - 10.99	NS																	
L	1999P	<i>Pescopagano village: All</i>	B	1.00 - NS	1411																	

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									<20	20-49	50-99	100-299	>300	<100	Median				Mean	SD
L	1999P	Val Sarmento 5 villages: SAC Val Sarmento 5 villages: SAC	B B	6.00 - 14.99 6.00 - 14.99	209 244									62.2	81	60.0	2059	*	16	
R	1999P	Lombardia region: SAC Piemonte region: SAC	B B	8.00 - 10.99 8.00 - 10.99	240 278									126.0 122.5			3383	*		
D	1998P	Castel d'Aiano village: SAC Gaggio Montano village: SAC Pietracolora village: SAC Bologna urban area: SAC Castel d'Aiano village: SAC Gaggio Montano village: SAC Pietracolora village: SAC Bologna urban area: SAC	B B B B B B B B	NS NS NS NS NS NS NS NS	68 140 25 175 68 140 25 175									123.0 116.0 80.0 159.0			1286	*	17 18 19 20	
D	1998P	Reggio Emilia district: SAC Reggio Emilia district: SAC	B B	12.00 - 14.99 12.00 - 14.99	837 1020												1287	*	21	
L	1998P	Rome: SAC Rome: SAC	B B	6.00 - 14.99 6.00 - 14.99	1040 1040	9.6	0.2	9.8						56.8	92.0	98.52	49.81	3435	*	*
L	1997P	3 villages in Tiberina Valley: SAC: Total SAC by village: Badia Tedalda SAC by village: Caprese Michelangelo SAC by village: Sestino 3 villages in Tiberina Valley: SAC: Total SAC by village: Badia Tedalda SAC by village: Caprese Michelangelo SAC by village: Sestino	B B B B B B B B	7.00 - 14.99 7.00 - 14.99 7.00 - 14.99 7.00 - 14.99 7.00 - 14.99 7.00 - 14.99 7.00 - 14.99 7.00 - 14.99	280 107 96 77 280 107 96 77					20.0			43.0	98.0 109.0 82.0 60.0			1273	*	22	
L	1994	ThyroMobil study 2 sites: SAC	B	6.00 - 15.99	320									69.0			1319	*	23	
L	1994P	Urban areas of Bologna, Lucca, Grosseto and Pis Pescopagano village: SAC Urban areas of Bologna, Lucca, Grosseto and Pis Pescopagano village: SAC	B B B B	6.00 - 14.99 6.00 - 14.99 6.00 - 14.99 6.00 - 14.99	2693 268 2693 268			6.1 22.0						110.0 72.0			3419	*	*	
S	1993 -1996	Avellino province: Pre-SAC/SAC	B	NS	1217									51.6	64.9	48.0	1292	*		

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						Grade 1	Grade 2	TGP	Distribution (%)					Prevalence (%)		Median	Mean	SD	General	Line	
									<20	20-49	50-99	100-299	>300	<100							
S	1993 -1996	Caserta province: Pre-SAC/SAC	B	NS	421									63.0	78.3	53.0	1292				
		Napoli city: Pre-SAC/SAC	B	NS	491									85.8	102.4	66.0					
		Avellino province: Adults/Elderly	B	NS	755									42.2	53.3	45.0					
		Benevento province: Adults/Elderly	B	NS	551									29.6	44.3	44.2					
S	1993 -1995	Altavilla village: SAC	B	6.00 - 14.99	341									62.4			1291	*			
		Castel del Lago village: SAC	B	6.00 - 14.99	17									58.3							
		Chianche village: SAC	B	6.00 - 14.99	59									66.2							
		Dentecane village: SAC	B	6.00 - 14.99	49									61.8							
		Flumeri village: SAC	B	6.00 - 14.99	270									46.8							
		Pietradefusi village: SAC	B	6.00 - 14.99	139									48.5							
		Torre le Nocelle village: SAC	B	6.00 - 14.99	109									44.8							
		Tufo village: SAC	B	6.00 - 14.99	51									63.1							
		Venticano village: SAC	B	6.00 - 14.99	190									42.3							
		Villanova village: SAC	B	6.00 - 14.99	127									51.9							
		Altavilla village: Adults	B	NS	201									51.7							
		Castel del Lago village: Adults	B	NS	8									46.6							
		Chianche village: Adults	B	NS	29									45.5							
		Dentecane village: Adults	B	NS	17									59.0							
		Flumeri village: Adults	B	NS	231									38.5							
		Pietradefusi village: Adults	B	NS	65									37.1							
		Torre le Nocelle village: Adults	B	NS	79									40.1							
		Tufo village: Adults	B	NS	45									53.7							
		Venticano village: Adults	B	NS	153									40.5							
		Villanova village: Adults	B	NS	115									40.2							
		Avellino province: SAC: Total	B	6.00 - 14.99	1352	39.4	2.0	41.4												*	
		Avellino province: Adults: Total	B	NS	943	55.6	20.9	76.4													
		SAC by sex	F	6.00 - 14.99	653	43.2	3.2	46.4													
SAC by sex	M	6.00 - 14.99	699	35.9	0.8	36.7															
Women	F	NS	767	57.2	24.1	81.3															
Men	M	NS	176	48.3	7.8	55.1															
L	1993	Val Tiberina area: SAC	B	6.00 - 14.99	NS								91.0			3434a	*				
R	1992 -1994	Veneto region: SAC: Total	B	8.00 - 10.99	1883												2058	*	24		
		SAC by location: Plain cities	B	8.00 - 10.99	565															25	
		SAC by location: Belluno and its districts	B	8.00 - 10.99	544																26
		SAC by district: Treviso	B	8.00 - 10.99	320																27

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						Grade 1	Grade 2	TGP	Distribution (%)					Prevalence (%)	Median		Mean	SD	General	Line		
									<20	20-49	50-99	100-299	>300	<100								
S	1987 -1989	SAC by commune: Sorbo	B	6.00 - 12.99	24			54.0										2057		64		
		SAC by commune: Taverna	B	6.00 - 12.99	81			36.0												65		
		SAC by commune: Zagarise	B	6.00 - 12.99	135			67.0												66		
L	1986	Val di Nievole area: SAC	B	6.00 - 14.99	NS									49				3434e	*			
		Val di Nievole area: SAC	B	6.00 - 14.99	NS			48.0												*		
L	1985 -1989	Teano area: SAC	B	10.00 - 16.99	502														2056	*	67	
		Teano area: SAC: Total	B	10.00 - 16.99	502	68.3	0.6	68.9												*		
		SAC by sex	F	10.00 - 16.99	249	71.9	0.8	72.7													*	
		SAC by sex	M	10.00 - 16.99	253	64.8	0.4	65.2													*	
L	1985	Val Tiberina area: SAC	B	6.00 - 14.99	NS														3434f	*		
		Val Tiberina area: SAC	B	6.00 - 14.99	NS			51.0							39					*		

NOTES

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- Reference no** 4909
General Notes: *Sample comprised of consecutive young men undergoing medical examination preliminary to military service in the regions of Piemonte (Alessandria and Asti provinces not included) and Aosta Valley.*
- Reference no** 4910
General Notes: *Sample comprised of SAC from the Veneto region (towns selected from the provinces of Padura, Vicenza, Sottomarina di Chioggia, Treviso, Vicenza and Belluno); thyroid volume measured by ultrasonography, values not reported in the database.*
- Line note 1** UI <50 µg/L: 7.6%
Line note 2 UI <50 µg/L: 8.8%. Plain towns: One town from each of the provinces of Padura, Vicenza and Sottomarina di Chioggia.
Line note 3 UI <50 µg/L: 7.2%; Mountain/pre-mountain: One town from each of the provinces of Treviso, Vicenza and Belluno.
- Reference no** 5608
General Notes: *Sample comprised of SAC from the province of Biella; goitre investigated by ultrasonography, values not included in the database.*
- Line note 4** UI median range: 107.0-228.0 µg/L
Line note 5 Median range: 92.0-218.0 µg/L
- Reference no** 5405
General Notes: *Sample comprised of SAC from 8 rural/mountain villages of 4 different provinces (Turin, Cuneo, Asti and Verbania) and Turin urban area in the region of Piedmont; all children had been living in the selected areas for more than 5 years; goitre investigated by ultrasonography, values not included in the database; data from the Turin urban sample also reported in reference No. 5403.*
- Line note 6** UI <50 µg/L: 6.8%
Line note 7 UI <50 µg/L: 6.5%
Line note 8 UI <50 µg/L: 7.1%
Line note 9 UI <50 µg/L: 6.3%
Line note 10 UI <50 µg/L: 7.3%
Line note 11 UI <50 µg/L: 11.4%
Line note 12 UI <50 µg/L: 6.9%
Line note 13 UI <50 µg/L: 6.4%
Line note 14 UI <50 µg/L: 6.6%
- Reference no** 1272
General Notes: *Population-based sample with individuals evenly distributed from hill, sea, mountain, and plain areas; Sicily and Sardinia islands not included in the sample.*
- Line note 15** UI <50 µg/L: 13.9%
- Reference no** 1278
General Notes: *Survey in an endemic area of southern Italy, village Pescopagano located in the Lucan Apennines; the sample size represents 91 % of children 1-14 years old and 73% of adults above 15 years; goitre investigated by ultrasonography, values not included in the database.*
- Reference no** 2059
General Notes: *Survey in 5 villages of Val Sarmento, Basilicata region; previously endemic area; sample represented 80% of SAC at school on the survey day.*
- Line note 16** UI median range: 5.4-341.9 µg/L

Reference no 3383
General Notes: *Sample comprised of SAC from the regions of Lombardia and Piemonte.*

Reference no 1286
General Notes: *Sample comprised of SAC from 3 villages (Castel d'Aiano, Gaggio Montano and Pietracolora) of the Appennines and urban area of Bolonga, Bolonga district, Emilia Romagna region.*
Line note 17 UI <50 µg/L: 7.9%
Line note 18 UI <50 µg/L: 12.7%
Line note 19 UI <50 µg /L: 23.1%
Line note 20 UI <50 µg /L: 2.8%

Reference no 1287
General Notes: *Sample comprised of SAC from the district of Reggio Emilia; goitre investigated by ultrasonography, values not included in the database.*
Line note 21 Goitre prevalence may be overestimated by palpation.

Reference no 3435
General Notes: *Sample comprised of SAC from one school in the village of Breda, an urban zone of Rome; goitre investigated by ultrasonography, values not included in the database.*

Reference no 1273
General Notes: *Sample comprised of SAC from 3 villages (Badia Tedala, Caprese Michelangelo and Sestino) of the Tiberina Valley in east Tuscany region; the sample size represents 96% of the SAC population; goitre investigated by ultrasonography, values not included in the database.*
Line note 22 UI <50 µg/L: 23.0%

Reference no 1319
General Notes: *The ThyroMobil study in Italy covered 2 sites; prevalence of goitre determined by ultrasonography, values not reported in the database; data extracted from references No. 1319 and 3384.*
Line note 23 UI median range: 54.0-84.0 µg/L

Reference no 3419
General Notes: *Sample comprised SAC from urban areas of northern and central Italy, Bologna, Lucca, Grosseto and Pisa and SAC from the village of Pescopagano, southern Italy.*

Reference no 1292
General Notes: *Sample comprised children and adults aged 3-90 years from the provinces of Avellino, Benevento and Caserta (rural areas) and the city of Napoli.*

Reference no 1291
General Notes: *Sample comprised of SAC and adults from 10 villages in the province of Avellino.*

Reference no 3434a
General Notes: *Sample comprised SAC from the Val Tiberina area, Tuscany region; goitre investigated by ultrasonography, values not included in the database.*

Reference no 2058
General Notes: *Sample comprised of SAC from the Veneto region; same survey reported in reference No. 1284.*
Line note 24 UI 50 µg/L: 14.9%, UI 100-200 µg/L: 36.2%, UI >200 µg/L: 20.1%
Line note 25 UI <50 µg/L: 13.3%, UI 100-200 µg/L: 35.9%, UI >200 µg/L: 20.7%
Line note 26 UI <50 µg/L: 16.0%, UI 100-200 µg/L: 34.2%; UI >200 µg/L: 25.4%
Line note 27 UI <50 µg/L: 15.6%, UI 100-200 µg/L: 40.0%, UI >200 µg/L: 16.6%
Line note 28 UI <50 µg/L: 15.0%, UI 100-200 µg/L: 36.6%, UI >200 µg/L: 15.4%

Reference no 1293
General Notes: *Sample comprised SAC from the area of Val Tiberina, Tuscany region; goitre investigated by ultrasonography, values not included in the database.*

Reference no 3434b
General Notes: *Sample comprised SAC from the Colline metalifere area, Tuscany region; goitre investigated by ultrasonography, values not included in the database.*

Reference no 3417
General Notes: *Sample comprised the entire schoolchildren population living in 3 different areas of Tuscany region: Borgo a Mozzano, hilly village and known iodine deficient, Marina di Pisa, located at sea level, known iodine sufficient area and Vagli, mountainous village former iodine deficient area.*

Reference no 3434c
General Notes: *Sample comprised SAC from the Garfagnana metalifere area, Tuscany region; goitre investigated by ultrasonography, values not included in the database.*

Reference no 3420
General Notes: *Sample comprised SAC selected from the 5 provinces of Calabria region; urinary iodine measured in SAC from the provinces of Crotona and Reggio Calabria.*

Reference no 525
General Notes: *Sample comprised of SAC from the towns of Varsi and Bardi, Parma province (Apennine Mountains); results for Varsi town also reported in reference No. 1274.*

Reference no 3434d
General Notes: *Sample comprised SAC from the App. Pistoiese area, Tuscany region.*

Reference no 2057
General Notes: *Sample comprised SAC from the Catanzaro province (19 communes), Cosenza province (15 communes) and Rende commune (Cosenza province), Calabria region.*

Line note 29 Cosenza province.
Line note 30 Catanzaro province.
Line note 31 Cosenza province.
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Line note 46 Catanzaro province.
Line note 47 Cosenza province.
Line note 48 Cosenza province.
Line note 49 Catanzaro province.
Line note 50 Catanzaro province.
Line note 51 Cosenza province; control group.
Line note 52 Catanzaro province.
Line note 53 Catanzaro province.
Line note 54 Cosenza province.

Line note 55 Cosenza province.
Line note 56 Catanzaro province.
Line note 57 Cosenza province.
Line note 58 Cosenza province.
Line note 59 Catanzaro province.
Line note 60 Catanzaro province.
Line note 61 Catanzaro province.
Line note 62 Catanzaro province.
Line note 63 Catanzaro province.
Line note 64 Standard error of the mean: 5.3 µg/L
Line note 65 Standard error of the mean: 3.1 µg/L
Line note 66 Standard error of the mean: 6.6 µg/L, control group.

Reference no 3434e

General Notes: *Sample comprised SAC from the Val di Nievole area, Tuscany region.*

Reference no 2056

General Notes: *Sample comprised SAC selected from the Teano area, Caserta province; UI expressed in µg/g creatinine, values reported in the respective line notes.*

Line note 67 UI <25 µg/g Cr: 17.9%, UI <50 µg/g Cr: 61.9%. UI mean (SD): 52 (32) µg/g Cr

Reference no 3434f

General Notes: *Sample comprised SAC from the Val Tiberina area, Tuscany region.*

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