



Istituto Superiore di Sanità (ISS)

Results of the national survey on the diffusion, characteristics and risk awareness regarding tattooing in Italy

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The prevalence of tattooed people in Italy

Prevalence of tattooed people in the general population in Italy > 12+ years of age
(expressed in millions)

The "structure" of the sample	No. cases	%	Number of people: Estimate (millions)
Tattooed people	972	12.8%	6.904
Ex-tattooed people	35	0.5%	0.250
Not tattooed People	6601	86.7%	46.899
Total	7608	100.0%	54.053

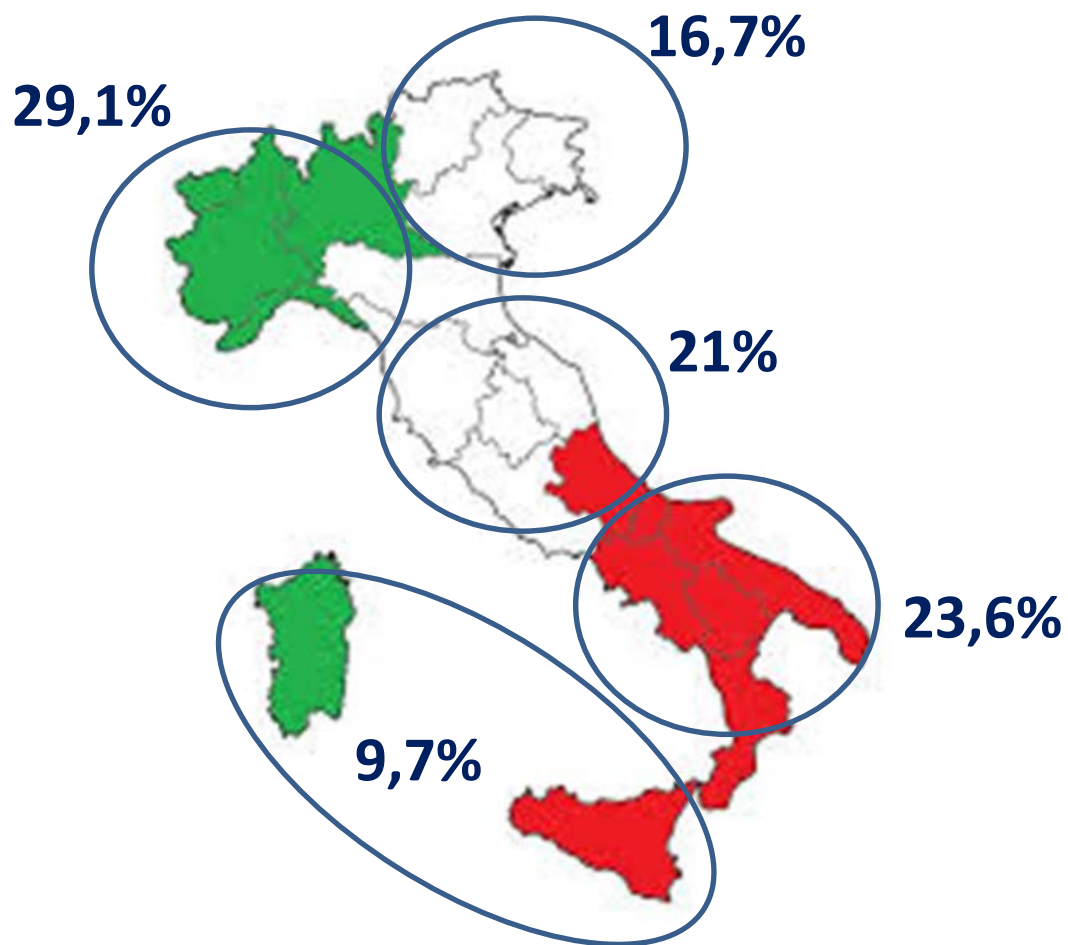
Estimated tattooed population in Italy 6.9 Mln.	Average Total: 12.8%	Males	Females
		11.7%	13.8%

The prevalence of tattooed people in Italy by age

Categories	Characteristics	no. of tattooed people	% of tattooed people	% of tattooed people in the sample
Sex	Female	543	55.9	13.8
	Male	429	44.1	11.7
	Total	972	100	/
Age	12-17 years	37	3.8	7.7
	18-24 years	133	13.7	22.1
	25-34 years	224	23.0	22.7
	35-44 years	313	32.2	23.9
	45-54 years	200	20.6	15.0
	Over 54	65	6.6	2.2

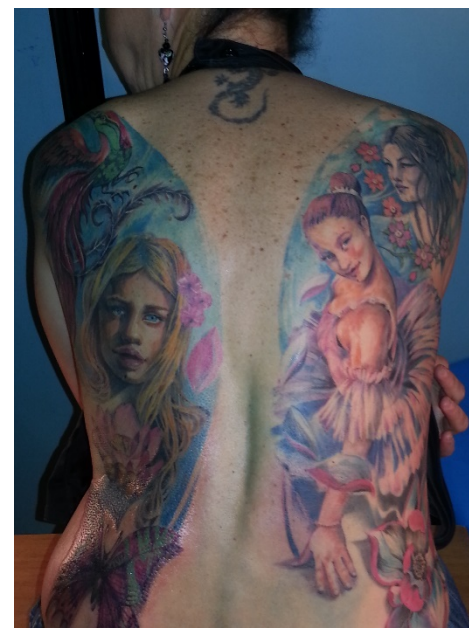
First tattoo mean age: **25,1 years old**

Geographical distribution of tattooed people



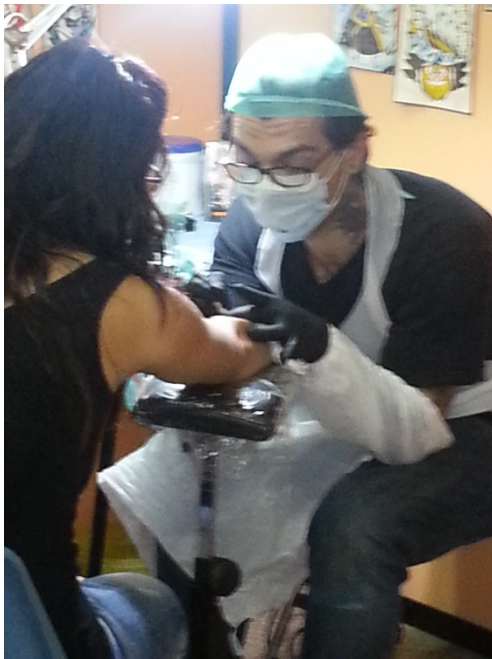
Geographical area of residence

Northwest	282	29,1%
Northeast	162	16,7%
Central area	204	21,0%
Southern	229	23,6%
Islands	94	9,7%
Total	972	100,0%



Tattoo parlors increase over the last five years

Over 1/3 of all tattoos have been carried out in the last five years before the interview



Years	Number of parlours
2012	1217
2014	2055
2016	3258

(Fonte_ Unioncamere-Infocamere, Registro delle imprese 2016)



Number of tattoo parlours in the Italian regions (2016)

Abruzzo	71
Basilicata	25
Calabria	55
Campania	156
Emilia Romagna	306
Friuli Venezia-Giulia	92
Lazio	367
Liguria	84
Lombardia	740
Marche	104
Molise	11
Piemonte	310
Puglia	147
Sardegna	35
Sicilia	79
Toscana	286
Trentino Alto-Adige	71
Umbria	54
Valle d'Aosta	9
Veneto	256

No. tattoos per individual

No. Tattoos	Female	Males	Total
1	63.9%	69.2%	66.2%
2	18.8%	13.4%	16.5%
3	11.2%	8.4%	10.0%
4-5	4.4%	5.4%	4.8%
>5	1.6%	3.6%	2.5%

The average number of tattoos per individual was 1.7%

Tattoos characteristics: size

Tattoos: size	Total		Male		Female	
	Cases	%	Cases	%	Cases	%
$\leq 0.5\%$	412	41,4%	153	34,8%	259	46,6%
$>0.5\% \leq 1\%$	301	30,2%	145	32,9%	156	28,0%
$>1\% \leq 2\%$	147	14,8%	69	15,6%	78	14,1%
$>2\% \leq 4\%$	99	10,0%	46	10,4%	53	9,6%
$>4\% \leq 6\%$	26	2,6%	19	4,3%	7	1,3%
$>6\% \leq 10\%$	5	0,5%	3	0,7%	2	0,4%
$>10\%$	6	0,6%	6	1,4%	0	0,0%

1% of the body surface area is equivalent to the size of the palm of the hand, fingers included

Tattoos characteristics in Italy: colours

Out of 1007 subjects

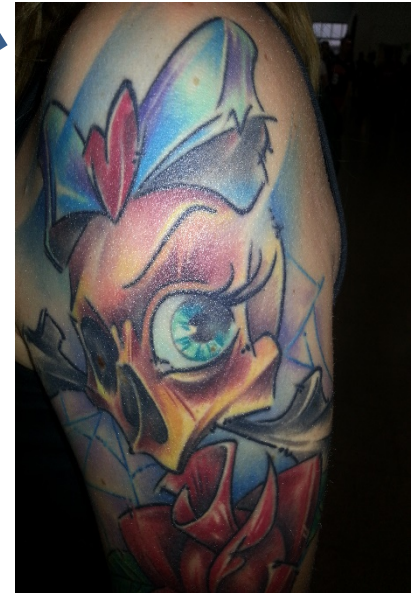
- 678 had *monochromatic tattoos* (67.3%)

- 329 had *polychromatic tattoos* (32.7%)

Regarding colours, monochromatic tattoos, both for men (68.8%) and women (66.1%), clearly predominate compared with polychromatic tattoos (men 31.2%, women 33.9%).

In general, black (70.6%), blue (16.0%) and red (15.9%) were the most frequently used colours. Of the monochromatic tattoos, black was the colour most used (81.8%).

Of those with a polychromatic tattoo, black (47.6%) and red (46.2%) were the two most common colours, followed by blue (28.5%) and yellow (26.0%).



Complications

Of our tattooed subjects, only 3.3% declared they had had complications and/or mild reactions related to the execution of the tattoo.

The more frequent reactions/complications (multiple response):

- pain 39.3%
- swelling, blisters, granuloma (27.7%),
- dermatitis, eczema, itching (26.7%),
- skin thickening 24.4%
- allergic reactions 17.5%;
- other: pus, bleeding, dizziness, headache, scabs and fever.

The complications reported are both short and long term and a large majority (90.7%), were restricted to the area of the tattoo.

Complications

Attitude of the tattooed individuals who claimed complications or reactions:

- *of these, only 12.1% consulted a dermatologist or a general practitioner;*
- 9.2% went to see their family doctor
- 27.4% referred back directly to the tattoo artist

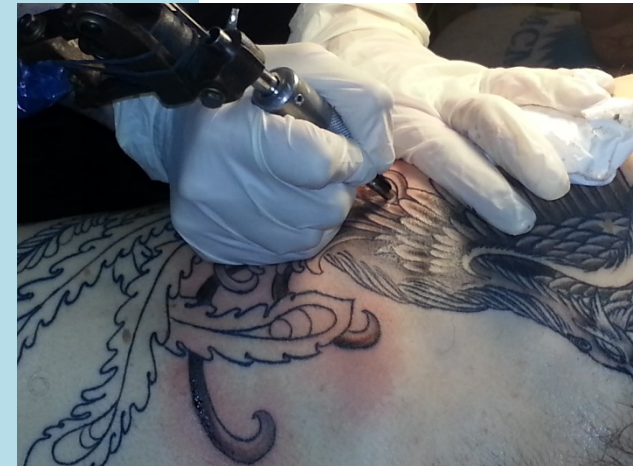
More than half (51.3%) did not consult anyone.

Tattooists' compliance to hygiene standards

With regard to following health and hygiene standards (workstation sanitisation, use of gloves, mask and gown, use of disposable materials):

- 85.9% of responses stated that the workstation was clean;
- 85.5% that the tattoo artist wore all the equipment (gloves, gowns, etc.);
- 86.7% used disposable materials (covers, containers, etc.) as well as sterile needles and pigments.

The lack of any hygiene precautions ranged between 13.3% and 14.5%, according to the geographical area considered.



Awareness of the health risks and contraindications of tattoos

Informed consent

- It was found that only 50.8% of tattooed people responded that they had signed an informed consent form
- 23% responded that they did not remember whether they signed
- 22.2% of our subjects who got their tattoos in an authorized centre and 24.0% of those who had gone to a beauty shop, did not sign an informed consent form.

Awareness of the health risks and contraindications of tattoos

- In general, only **58.1%** (**13.9% + 44.2%**) of the interviewed were informed on the risks: the most frequent perception of risk involved allergic reaction (79.2%) and hepatitis (68.8%)
- Whereas, only 41.7% were adequately informed on the contraindications to tattooing. Only 25.4% responded that diabetes constitutes a contraindication to tattooing

Conclusions

- Low percentage of complications/side effects probably due to:
 - low number of tattoos per person
 - Small size
 - Monochromatic tattoo
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- The questionnaire was referred to the most recent tattoo
 - Low percentage of those who consulted a practitioner
 - Lack of a reporting system for complications and adverse events
 - Consumer should be educated to recognize health effects post tattooing

Conclusions

- The level of knowledge regarding risks was found to be inadequate
- 13.4% of tattooed subjects had had their tattoo done outside authorized centres and this can constitute a remarkable source of risk, especially when one considers that the figure may be underestimated

Conclusions

- Need for national information campaigns to increase awareness of the risks and contraindications
- strengthening tattooists' training
- improvement of authorization process of the parlours in compliance with European standards regarding hygiene and procedures to be followed

Thank you



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