

# Cancers attributable to diet in Italy

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**Supplementary table 1.** ICD-10 codes used to define site-specific cancer deaths and diagnoses in the national vital statistics on causes of death and Italian cancer registries databases, respectively.

<b>Cancer site</b>	<b>ICD-10 code</b>
Colon and rectum	C18-C20
Mouth, pharynx, and larynx	C00-C10; C12-C13; C14; C32
Nasopharynx	C11
Esophagus	C15
Lung	C34
Stomach	C16
Liver	C22
Endometrium	C54.1

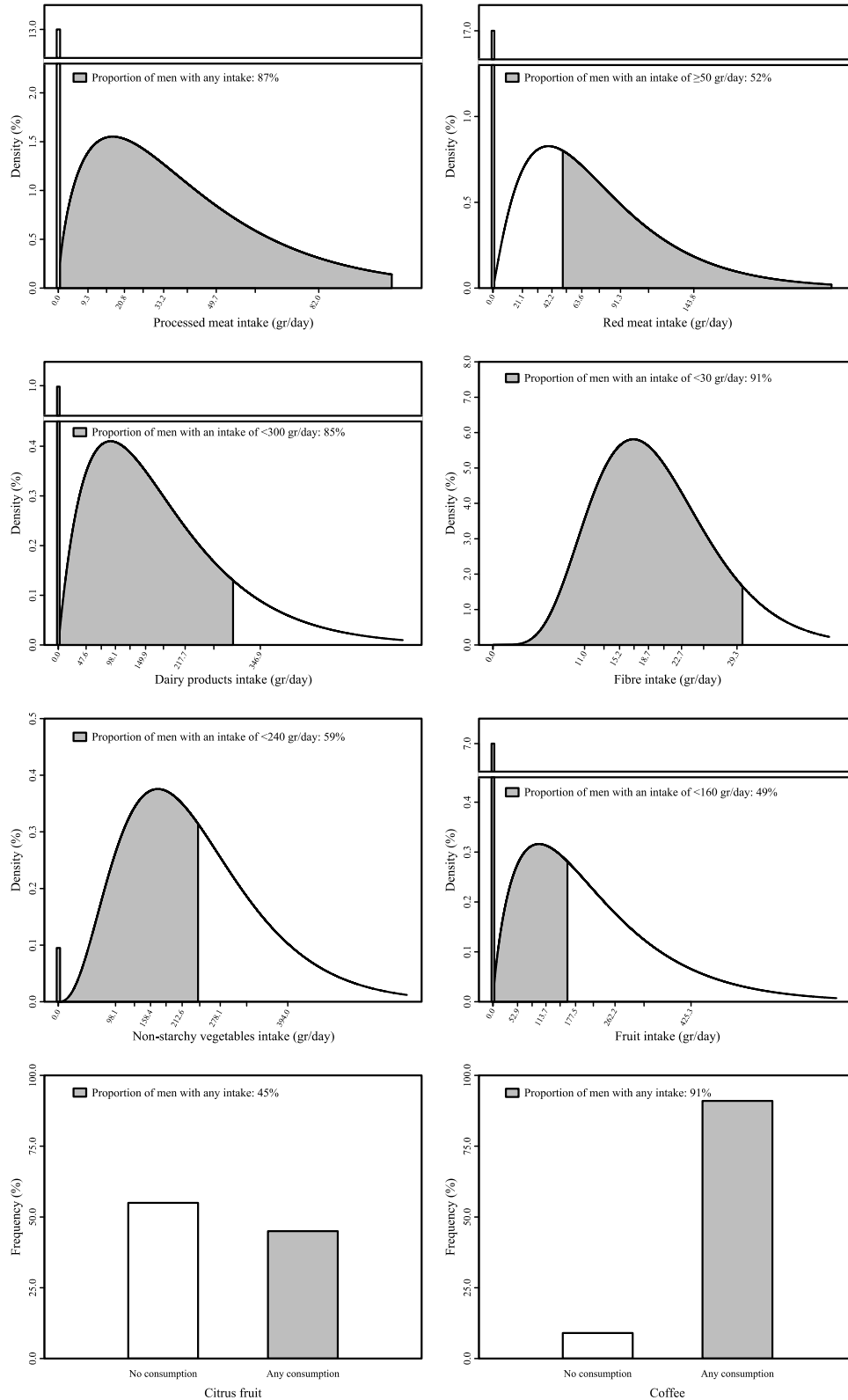
**Supplementary table 2.** Population attributable fraction (PAF), observed and attributable cancer deaths in 2020, and corresponding 95% confidence interval (CI) for each dietary factor-cancer type pair by sex in Italy.

Dietary factor/cancer type	Counterfactual distribution of dietary factor <sup>‡</sup>	Men			Women		
		PAF (95% CI), %	Observed deaths, n	Attributable deaths (95% CI), n	PAF (95% CI), %	Observed deaths, n	Attributable deaths (95% CI), n
<b>'Convincing' association*</b>							
<b>Processed meat</b>	0 gr/day						
Colon and rectum [C18-C20]		10.5 (5.0-16.3)	10246	1076 (521-1670)	7.0 (3.4-11.0)	8716	610 (296-959)
<b>'Probable' association*</b>							
<b>Red meat</b>	Intake of <50 gr/day						
Colon and rectum [C18-C20]		3.3 (0.1-7.0)	10246	338 (10-717)	2.0 (0.1-4.2)	8716	174 (9-366)
<b>Dairy products</b>	Intake of ≥300 gr/day						
Colon and rectum [C18-C20]		4.8 (3.6-5.9)	10246	492 (369-605)	4.3 (3.2-5.3)	8716	375 (279-462)
<b>Fibre</b>	Intake of ≥30 gr/day						
Colon and rectum [C18-C20]		7.9 (0.4-14.5)	10246	809 (41-1486)	9.0 (0.5-16.8)	8716	784 (44-1464)
<b>Non-starchy vegetables</b>	Intake of ≥240 gr/day						
Mouth [C00-C10; C12-C13], pharynx [C14], and larynx [C32]		8.9 (0.0-18.1)	3160	281 (0-572)	9.7 (0.0-19.8)	1176	114 (0-233)
Nasopharynx [C11]		16.5 (5.2-26.8)	178 <sup>#</sup>	29 (9-48)	17.8 (5.7-29.0)	73 <sup>#</sup>	13 (4-21)
Esophagus, AC [C15]		6.3 (0.7-11.4)	447 <sup>†</sup>	28 (3-51)	6.9 (0.7-12.6)	181 <sup>†</sup>	12 (1-23)
Esophagus, SCC [C15]		5.1 (0.0-10.9)	907 <sup>†</sup>	46 (0-99)	5.6 (0.0-12.1)	367 <sup>†</sup>	21 (0-44)
Colon and rectum [C18-C20]		1.1 (0.3-1.8)	10246	113 (31-184)	1.2 (0.3-2.0)	8716	105 (26-174)
Lung [C34]		3.3 (0.8-5.5)	22188	732 (178-1220)	3.7 (0.9-6.2)	10110	374 (91-627)
<b>Fruit</b>	Intake of ≥160 gr/day						
Esophagus, SCC [C15]		7.3 (2.8-11.4)	907 <sup>†</sup>	66 (25-103)	5.6 (2.1-8.8)	367 <sup>†</sup>	21 (8-32)
Stomach [C16]		0.8 (0.0-2.3)	5082	41 (0-117)	0.6 (0.0-1.8)	3550	21 (0-64)
Lung [C34]		3.4 (2.3-4.5)	22188	754 (510-998)	2.6 (1.7-3.4)	10110	263 (172-344)
<b>Citrus fruit</b>	Any intake						
Stomach, cardia [C16.0]		6.3 (0.4-13.0)	762	48 (3-99)	7.1 (0.4-14.5)	533	38 (2-77)
<b>Coffee</b>	Any intake						
Liver [C22]		31.9 (19.7-42.8)	5708	1821 (1124-2443)	31.2 (19.2-42.0)	2882	899 (553-1210)
Endometrium [C54.1]		-	-	-	11.6 (4.1-19.0)	2152	250 (88-409)
<b>Diet-related cancers<sup>‡</sup></b>		13.9 (5.9-21.7)	47916	6674 (2815-10412)	13.9 (5.4-22.3)	29207	4074 (1573-6509)
<b>All cancers<sup>‡</sup></b>		6.8 (2.9-10.6)	97867	6674 (2815-10412)	5.1 (2.0-8.1)	79991	4074 (1573-6509)

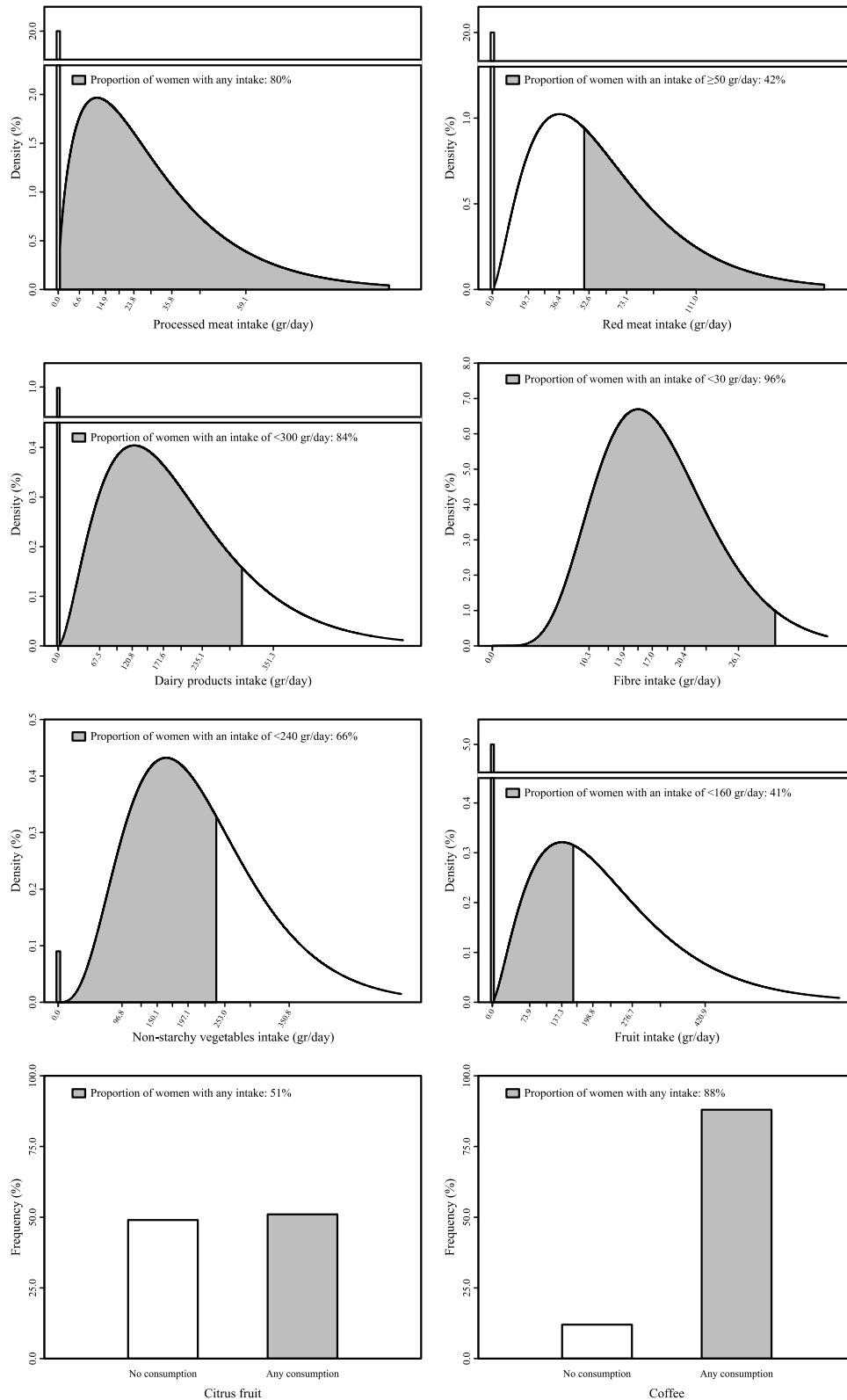
<sup>‡</sup>Defined according to dietary intake recommendations of the World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) or other Institutions <sup>1-3</sup>; \*Defined according to the World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) <sup>4-8</sup>; <sup>#</sup>Nasopharyngeal cancer deaths were estimated

as 8.7% and 6.9% of the total oral and pharyngeal cancer deaths in men (n=2050) and women (n=1061), respectively, according to a previous defined algorithm <sup>9</sup>; <sup>†</sup>Deaths from adenocarcinoma and squamous cell carcinoma of the esophagus were estimated as 33% and 67% of the total esophageal cancer deaths, respectively, according to a previous defined algorithm <sup>9</sup>; <sup>‡</sup>Diet-related cancer deaths included the following cancer sites: mouth, pharynx, larynx, nasopharynx, esophagus (adenocarcinoma and squamous cell carcinoma), stomach, colorectum, liver, lung, and endometrium; <sup>+</sup>All cancer deaths excluding non-melanoma skin cancer.

**Supplementary figure 1.** Estimated intake distributions for processed meat, red meat, dairy products, fibre, non-starchy vegetables, and fruit<sup>10-13</sup> in men according to gamma distribution<sup>14</sup>; observed proportions of no consumers and consumers for citrus fruit and coffee<sup>10-13</sup> in men.



**Supplementary figure 2.** Estimated intake distributions for processed meat, red meat, dairy products, fibre, non-starchy vegetables, and fruit <sup>10-13</sup> in women according to gamma distribution <sup>14</sup>; observed proportions of no consumers and consumers for citrus fruit and coffee <sup>10-13</sup> in women.



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