



Trend temporali di mortalità in Umbria 1994-2008

Registro Tumori
Umbro di Popolazione

Registro Nominativo
delle Cause di Morte

Registro Regionale
dei Mesoteliomi

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The screenshot shows the website interface for the Registro Tumori Umbro di Popolazione (RTUP). At the top, there is a search bar and a navigation menu with links for Home, Presentazione R.T.U.P., Gruppo di lavoro, Re.N.Ca.M., Pubblicazioni, and News. Below the navigation is a large banner with the text 'Registro Tumori Umbro di Popolazione' and a map of Umbria. On the left side, there is a 'MENU' section with links for Presentazione, Gruppo di lavoro, Re.N.Ca.M., Pubblicazioni, Archivio pubblicazioni, and Collegamenti. Below the menu are sections for 'ARCHIVIO DATI RTUP' (Accesso alle statistiche) and 'ARCHIVIO DATI ISTAT' (Incidenza, Mortalità, Popolazioni). At the bottom left, there is a 'C.R.O. UMBRIA' logo. The main content area features a large image of the RTUP logo and a text block starting with 'Il Registro Tumori Umbro di Popolazione (RTUP) copre la popolazione dell'intera Umbria. L'Umbria e' una piccola regione situata nell'Italia centrale, divisa in due province: Perugia e Terni. L'area totale e' di 8456 km2 e la densità demografica e' di circa 99 abitanti per km2. La popolazione (825.826 al Censimento del 21/10/2001) e' più anziana della media italiana: la popolazione che supera i 65 anni comprende il 22,3% del totale. La popolazione e' stabile, con...'. On the right side, there is a 'NEWS' section with a headline 'E' ora possibile accedere direttamente al Sistema Gestionale del RTUP per il calcolo real time di alcuni indici epidemiologici di mortalità ed incidenza importanti.' and a sub-headline 'Sono disponibili i dati relativi alle "popolazioni" per l'anno 2007 per le quattro Asl, per l'Umbria e per i singoli Comuni'. Below the news is a 'Pubblicato' section with a small image and the text 'La frequenza del cancro in Umbria, 2004-2006' and 'Sul sito del Centro di Riferimento Oncologico (CRO) dell'Umbria è disponibile il...'. At the bottom left of the screenshot, there is a small logo for 'CRO'.

<http://www.r tup.unipg.it>
rtupop@unipg.it

E' possibile accedere, dal sito del RTUP,
direttamente al Sistema Gestionale per il calcolo in
tempo reale delle tabelle di incidenza mortalità.



PERUGIA 2009

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Introduzione.

In questo report vengono illustrati i trend temporali dei tassi di mortalità per le diverse cause per il periodo 1994-2008 nella Regione dell'Umbria; inoltre gli indici relativi al periodo 2004-2008 sono confrontati con quelli dei quinquenni precedenti 1994-1998 e 1999-2003.

Inoltre sono stati calcolati i tassi standardizzati di Anni di vita potenziale persi (YPLL) fino a 75 anni [1]. Anche questi ultimi sono standardizzati con la popolazione umbra maschi+ femmine al Censimento del 2001. Come per la mortalità gli YPLL del periodo 2004-2008 sono confrontati con quelli dei quinquenni precedenti 1994-1998 e 1999-2003.

I dati relativi al numero dei deceduti sono stati ricavati dal Registro Nominativo delle Cause di Morte (ReNCaM) dell'Umbria. I dati sono stati codificati secondo la decima classificazione internazionale delle malattie (ICD10) [2] e le cause considerate e i rispettivi codici ICD10 sono di seguito riportate.

Tabella 1. Cause di morte considerate.

Causa di morte	ICD10
Tutte le cause	A00-Y99
Malattie infettive e parassitarie	A00-B99
Tumori maligni	C00-C96
✓ Stomaco	✓ C16
✓ Colon-retto	✓ C18-C21
✓ Polmone	✓ C34
✓ Mammella (femmine)	✓ C50
✓ Prostata	✓ C61
Malattie endocrine, della nutrizione e del metabolismo	E00-E90
✓ Diabete	✓ E10
Malattie del sistema nervoso	G00-G99
✓ Morbo di Parkinson	✓ G20
✓ Morbo di Alzheimer	✓ G30.9
Malattie del sistema cardiocircolatorio	I00-I99
✓ Malattie ischemiche del cuore	✓ I20-I25
✓ Malattie circolatorie dell'encefalo	✓ I60-I69
Malattie dell'apparato respiratorio	J00-J99
✓ Broncopneumopatie cronico-ostruttive	✓ J40-J47
Malattie dell'apparato digerente	K00-K93
✓ Fibrosi e cirrosi epatica	✓ (K74)
Malattie dell'apparato genito-urinario	N00-N99
Cause esterne di mortalità	V00-Y99
✓ Incidenti da mezzi di trasporto	✓ V00-V99
✓ Suicidi	✓ X60-X84

I trend temporali sono stati calcolati sui tassi standardizzati per età, con la popolazione umbra maschi+ femmine al Censimento del 2001, con il metodo della "joinpoint regression" [3] usando il software del SEER (Surveillance Epidemiology and End Results) del National Cancer Institute degli Stati Uniti [4].

Questa analisi temporale mette in evidenza i cambiamenti, statisticamente significativi, dei trend e quantifica la variazione media annuale dei tassi (annual percent change = APC). Nelle figure, l'asterisco accanto al valore dell'APC indica la significatività ($P \leq 0.05$) dell'incremento o del decremento calcolato.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Nelle tabelle non compaiono le cause che presentano tutti i valori dei tassi uguali a 0.0.

Alla fine del report sono riportate le tabelle di mortalità (n.decessi, tassi per età, tassi standardizzati, YPLL, rischi cumulativi di morte).

I tassi sono riferiti al territorio dell'Umbria nel suo complesso. Per eventuali diverse aggregazioni (ASL e Distretti Sanitari di Base), questi e altri indici sono disponibili in rete sul sito del RTUP: www.r tup.unipg.it. Dal sito si accede direttamente al ReNCaM e i tassi vengono calcolati, in tempo reale, dal numero dei deceduti contenuti nell'archivio del Registro. I metodi utilizzati per il calcolo dei tassi, della standardizzazione diretta e indiretta, degli altri indici e dei relativi errori standard, sono consultabili presso il sito stesso alla pagina delle "STATISTICHE".

L'archivio di mortalità è stato creato grazie alla disponibilità e alla collaborazione dei Sindaci, degli Operatori degli Uffici Anagrafe di tutti i comuni Umbri e dei Colleghi delle ASL addetti alla raccolta delle schede di morte. Le popolazioni utilizzate sono quelle calcolate dall'ISTAT (<http://demo.istat.it/>).

Mortalità per malattie infettive e parassitarie (A00-B99).

La figura 1 mostra i trend temporali di mortalità per malattie infettive e parassitarie. La mortalità subisce un incremento continuo dal 1994 al 2008, anche se soggetto a una notevole variabilità nel corso degli anni, nei maschi risulta significativo.

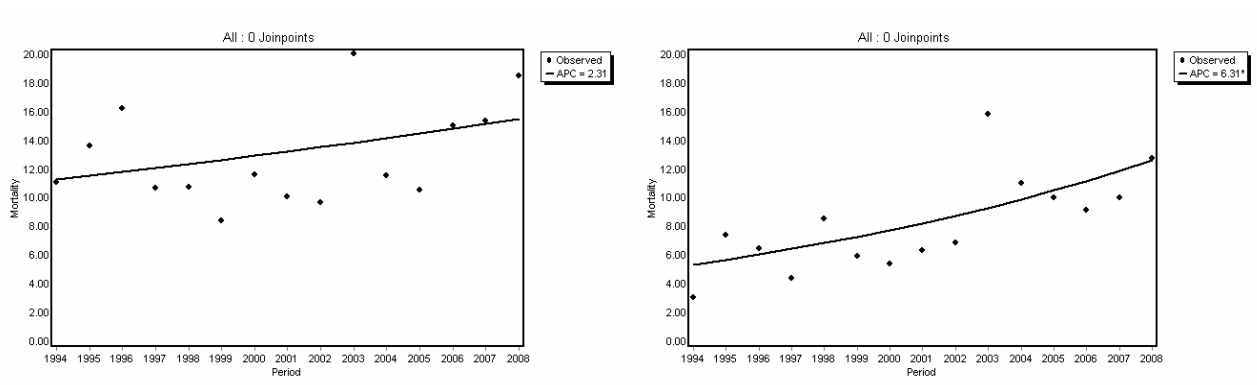


Figura 1. Trend temporali di mortalità per malattie infettive (A00-B99) maschi (a sinistra) e femmine (a destra), 1994-2008.

Tale incremento è soprattutto dovuto all'aumentata mortalità per setticemia (A41) e per epatite B (B16) (tabella 2).

La mortalità per HIV (B24) rimane costante nelle femmine mentre diminuisce notevolmente nei maschi: da un tasso di 5.3 per 100.000 abitanti nel periodo 1994-1998 a 0.6 nell'ultimo quinquennio.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 2. Tassi standardizzati di mortalità malattie infettive e parassitarie (A00-B99).

ICD10	MASCHI				var. 94-08	FEMMINE			
	1994-1998	1999-2003	2004-2008	94-08		1994-1998	1999-2003	2004-2008	94-08
A00 Colera	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	
A02 Altre infez.Salmonella	0.3	0.1	0.0	-0.3	0.1	0.0	0.0	-0.1	
A03 Shigellosi	0.1	0.0	0.0	-0.1	0.1	0.0	0.0	-0.1	
A08 Infez.intest.virali e altre spec.	0.2	0.1	0.0	-0.2	0.1	0.0	0.0	-0.1	
A09 Diarrea gastroenter.orig.infettiva	0.2	0.7	1.0	0.8	0.3	0.2	0.9	0.6	
A15-A16 Tubercolosi respiratoria	0.7	0.5	0.6	-0.1	0.2	0.1	0.4	0.2	
A17 Tubercolosi sist. nervoso	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
A18 Tubercolosi altri organi	0.0	0.1	0.1	0.1	0.0	0.2	0.1	0.1	
A24-A28 Altre zoonosi batteriche	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	
A33-A35 Tetano	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	
A39 Infez.meningococcica	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	
A40 Settic.streptococcica	0.3	0.2	0.0	-0.3	0.0	0.2	0.1	0.1	
A41 Altre setticemia	3.0	4.7	6.2	3.2	2.2	3.8	4.2	2.0	
A48-A49 Altre n.s.mal.batteriche	0.0	0.3	0.2	0.2	0.1	0.0	0.2	0.1	
A80 Poliomielite acuta	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	
A81 Infez.snc da virus lenti	0.0	0.2	0.2	0.2	0.0	0.2	0.2	0.2	
A87 Meningite virale	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	
A88-A89 Altre e n.s inf.virali snc	0.0	0.2	0.1	0.1	0.1	0.2	0.0	-0.1	
B00-B09 Infez.virali pelle e mucose	0.1	0.1	0.1	0.0	0.2	0.0	0.1	-0.1	
B15 Epatite ac. tipo A	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	
B16 Epatite ac. tipo B	0.2	0.3	0.6	0.4	0.0	0.2	0.1	0.1	
B17 Altre epatiti virali acute	0.1	2.2	3.3	3.2	0.2	1.7	3.0	2.8	
B19 Epatite vir. n.s.	0.6	0.3	0.4	-0.2	0.2	0.3	0.4	0.2	
B24 HIV n.a.s.	5.3	1.3	0.6	-4.7	0.4	0.4	0.4	0.0	
B25-B34 Altre mal.virali	0.1	0.1	0.2	0.1	1.2	0.1	0.0	-1.2	
B35-B49 Micosi	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	
B50-B64 Mal.da protozoi	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
B90-B94 Postumi mal.infett.parassitarie	0.6	0.3	0.4	-0.2	0.1	0.2	0.1	0.0	
B95-B99 Altre e n.s.malatt.infettive	0.1	0.3	0.1	0.0	0.1	0.0	0.1	0.0	
A00-B99 Tutte le cause	12.5	12.1	14.3	1.8	6.0	8.2	10.7	4.7	

Mortalità per tumori maligni (C00.C99).

La figura 2 illustra i trend della mortalità per tumori maligni, di tutte le sedi prese complessivamente.

Il valore del decremento percentuale medio annuo (APC) è di poco superiore all'1%, ma è statisticamente significativo in ambo i sessi.

Ad esclusione della mortalità per cancro del pancreas (C25), che presenta un incremento del 18% nei maschi e del 9% nelle femmine e del tumore del polmone nel sesso femminile (+3.5%), per tutte le altre sedi si assiste a un andamento stazionario o in diminuzione (tabella 3).

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

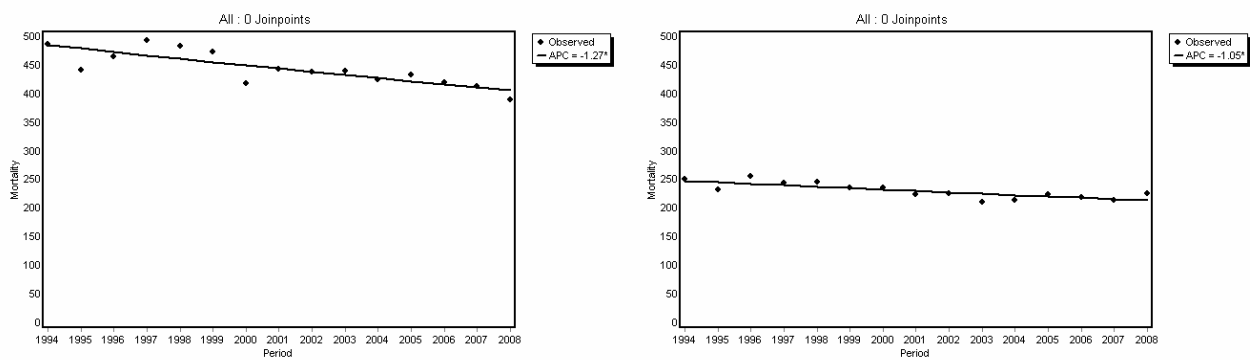


Figura 2. Trend temporali di mortalità per tumori maligni (C00-C99) maschi (a sinistra) e femmine (a destra), 1994-2008.

Tabella 3. Tassi standardizzati di mortalità per tumori maligni (C00-C99).

ICD10	MASCHI			var. 94-08.	FEMMINE			var. 94-08
	1994-1998	1999-2003	2004-2008		1994-1998	1999-2003	2004-2008	
C00 Labbro	0.3	0.3	0.2	-0.1	0.0	0.1	0.1	0.1
C01 Base della lingua	0.8	0.7	0.4	-0.4	0.1	0.1	0.0	-0.1
C02 Altre ns parti lingua	1.2	1.3	1.4	0.2	0.6	0.5	0.5	-0.1
C03 Gengiva	0.3	0.0	0.0	-0.3	0.1	0.1	0.0	-0.1
C04 Pavimento orale	0.8	0.5	0.3	-0.5	0.2	0.1	0.0	-0.2
C05 Palato	0.2	0.0	0.2	0.0	0.2	0.1	0.0	-0.2
C06 Altre ns parti bocca	1.1	1.1	1.1	0.0	0.6	0.2	0.3	-0.3
C07 Parotide	0.7	0.5	0.9	0.2	0.3	0.2	0.3	0.0
C08 Al. ns ghian.saliv.magg.	0.1	0.3	0.2	0.1	0.1	0.2	0.1	0.0
C09 Tonsille	0.7	0.7	0.8	0.1	0.0	0.2	0.0	0.0
C10 Orofaringe	0.3	0.4	0.3	0.0	0.0	0.1	0.0	0.0
C11 Nasofaringe	0.3	0.6	0.3	0.0	0.1	0.3	0.1	0.0
C12 Seno piriforme	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0
C13 Ipofaringe	0.6	0.4	0.5	-0.1	0.0	0.0	0.0	0.0
C14 Altre ns sedi lab.cav.or.faringe	1.5	1.4	1.2	-0.3	0.1	0.1	0.2	0.1
C15 Esofago	7.4	6.1	4.6	-2.8	1.1	1.3	0.8	-0.3
C16 Stomaco	56.3	43.9	40.2	-16.1	27.4	23.3	18.7	-8.7
C17 Piccolo intestino	1.0	1.3	1.0	0.0	0.8	0.6	0.4	-0.4
C18 Colon	39.0	37.9	38.6	-0.4	24.4	24.3	23.1	-1.3
C19 Giunz. rettosigmoidea	3.2	2.7	2.4	-0.8	1.6	1.4	1.1	-0.5
C20 Retto	12.4	11.7	10.5	-1.9	6.4	5.7	4.5	-1.9
C21 Ano e canale anale	0.4	0.9	0.5	0.1	0.4	0.4	0.3	-0.1
C22 Fegato dott. intraepatici	25.7	19.8	23.7	-2.0	11.8	10.2	9.7	-2.1
C23 Colecisti	2.0	2.2	1.4	-0.6	3.9	3.2	2.9	-1.0
C24 Altre ns parti vie biliari	3.6	4.1	4.0	0.4	3.9	3.2	3.2	-0.7
C25 Pancreas	17.4	18.1	20.5	3.1	13.5	11.1	14.7	1.2
C26 Altri mal def.organi digerenti	8.4	8.0	6.1	-2.3	6.1	5.3	4.9	-1.2
C30 Cavita' nasali orecc.medio	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.2
C31 Seni accessori	0.1	0.4	0.3	0.2	0.1	0.0	0.2	0.1
C32 Laringe	8.6	7.3	6.6	-2.0	0.3	0.5	0.4	0.1
C33 Trachea	0.5	0.3	0.2	-0.3	0.1	0.0	0.0	-0.1
C34 Bronchi e polmoni	111.8	100.7	96.1	-15.7	17.3	17.5	20.8	3.5
C37 Timo	0.3	0.1	0.1	-0.2	0.0	0.2	0.1	0.1
C38 Cuore mediastino pleura	1.3	1.4	0.8	-0.5	0.5	0.5	0.3	-0.2
C39 Al.mal def.org.resp.intratorac.	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0

segue

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

segue tabella 3.

ICD10	MASCHI			var. 94-08	FEMMINE			var. 94-08
	1994-1998	1999-2003	2004-2008		1994-1998	1999-2003	2004-2008	
C40 Ossa cart.art.arti	0.0	0.3	0.2	0.2	0.3	0.1	0.0	-0.3
C41 Ossa cart.art.altre e ns sedi	0.9	0.8	1.2	0.3	0.5	0.7	0.6	0.1
C43 Melanoma della pelle	3.3	4.2	3.7	0.4	2.4	2.2	2.6	0.2
C44 Pelle non melanomi	2.1	1.5	1.1	-1.0	1.0	0.8	0.8	-0.2
C45 Mesotelioma	0.8	1.7	2.2	1.4	0.2	0.5	0.5	0.3
C46 Sarcoma di Kaposi	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
C47 Nervi periferici s.n.auto	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C48 Retroperit.peritoneo	2.4	1.1	1.7	-0.7	2.1	1.0	1.4	-0.7
C49 Tess.connettivo e molle	1.0	2.5	1.9	0.9	1.0	1.0	2.1	1.1
C50 Mammella	0.4	0.7	0.4	0.0	40.2	36.8	34.4	-5.8
C51 Vulva	0.0	0.0	0.0	0.0	2.3	1.7	1.7	-0.6
C52 Vagina	0.0	0.0	0.0	0.0	0.5	0.3	0.3	-0.2
C53 Collo dell'utero	0.0	0.0	0.0	0.0	2.5	1.6	1.6	-0.9
C54 Corpo dell'utero	0.0	0.0	0.0	0.0	2.0	2.1	1.5	-0.5
C55 Utero n.s.	0.0	0.0	0.0	0.0	5.9	4.6	6.0	0.1
C56 Ovaio	0.0	0.0	0.0	0.0	11.2	11.3	11.2	0.0
C57 Al.n.s.org.genit.femminili	0.0	0.0	0.0	0.0	0.3	0.1	0.2	-0.1
C60 Pene	0.5	0.6	0.6	0.1	0.0	0.0	0.0	0.0
C61 Prostata	54.0	48.8	40.9	-13.1	0.0	0.0	0.0	0.0
C62 Testicolo	0.3	0.4	0.1	-0.2	0.0	0.0	0.0	0.0
C63 Al.n.s.org.genit.maschili	0.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0
C64 Rene eccet.pelvi renale	7.2	10.3	10.6	3.4	2.7	3.4	3.6	0.9
C65 Pelvi renale	0.0	0.2	0.2	0.2	0.1	0.1	0.0	-0.1
C66 Uretere	0.6	0.2	0.5	-0.1	0.0	0.1	0.1	0.1
C67 Vescica	24.0	25.9	21.8	-2.2	4.6	4.4	3.9	-0.7
C68 Al.n.s.organi urinari	4.1	1.2	0.7	-3.4	1.4	0.8	0.3	-1.1
C69 Occhio e annessi	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.0
C70 Meningi	0.1	0.2	0.2	0.1	0.4	0.3	0.2	-0.2
C71 Cervello	9.9	10.8	11.1	1.2	6.7	7.3	7.7	1.0
C72 Midollo spin.nervi cran.al.parti	0.4	0.3	0.3	-0.1	0.2	0.4	0.1	-0.1
C73 Ghiandola tiroide	1.1	1.1	1.0	-0.1	1.1	1.3	1.2	0.1
C74 Ghiandole surrenali	0.2	0.3	0.2	0.0	0.6	0.3	0.1	-0.5
C75 Al.ghiard.endocr.strutt.correlate	0.0	0.4	0.2	0.2	0.2	0.0	0.1	-0.1
C76 Altre e mal.def.sedi	1.4	1.5	1.1	-0.3	2.0	0.9	0.9	-1.1
C80 T.m.n.a.s. o n.s.prim.sec.	11.2	14.3	10.3	-0.9	6.3	8.3	5.5	-0.8
C81 Malattia di Hodgkin	1.0	1.0	1.2	0.2	0.7	0.5	0.7	0.0
C82 Linfoma follicol.non-Hodgkin	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0
C83 Linfoma diffuso non-Hodgkin	0.2	0.2	0.6	0.4	0.0	0.0	0.2	0.2
C84 Linfoma perif.cutan.cell.T	0.2	0.3	0.1	-0.1	0.1	0.0	0.0	-0.1
C85 Al.n.s.linfomi non-Hodgkin	10.8	9.6	9.2	-1.6	6.8	6.1	6.0	-0.8
C88 Mal.immunoprolifer.maligna	0.8	0.5	0.5	-0.3	0.8	0.2	0.1	-0.7
C90 Mieloma multipl.t.m.plasmacell.	6.2	5.9	6.2	0.0	4.7	5.5	4.9	0.2
C91 Leucemia linfoide	6.5	7.5	6.3	-0.2	3.4	3.3	3.1	-0.3
C92 Leucemia mieloide	9.2	7.6	9.2	0.0	4.8	4.4	4.8	0.0
C93 Leucemia monocitica	0.3	0.2	0.2	-0.1	0.0	0.0	0.1	0.1
C94 Altre leucemie cell.specificate	0.1	0.0	0.0	-0.1	0.1	0.0	0.0	-0.1
C95 Leucemie cell.non specificate	4.1	2.8	2.1	-2.0	2.4	1.7	1.6	-0.8
C96 Al. ns t.m.tess.linf.emat.	0.9	1.2	0.7	-0.2	0.6	0.9	0.5	-0.1
C00-C99 Tutte le sedi	474.6	441.8	414.9	-59.7	245.6	226.3	218.8	-26.8

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Le figure seguenti mostrano gli andamenti dei tassi per le sedi tumorali più comuni (figure 4-7).

La mortalità per tumori dello stomaco (C16) e del colon retto (C18-C21) in ambo i sessi, così come quelli della mammella femminile (C50) e della prostata (C61), diminuisce in maniera significativa nel periodo considerato. Per il cancro polmonare (C34), a una diminuzione significativa nei maschi, si accompagna un incremento, anche se non significativo, nelle femmine (figura 6).

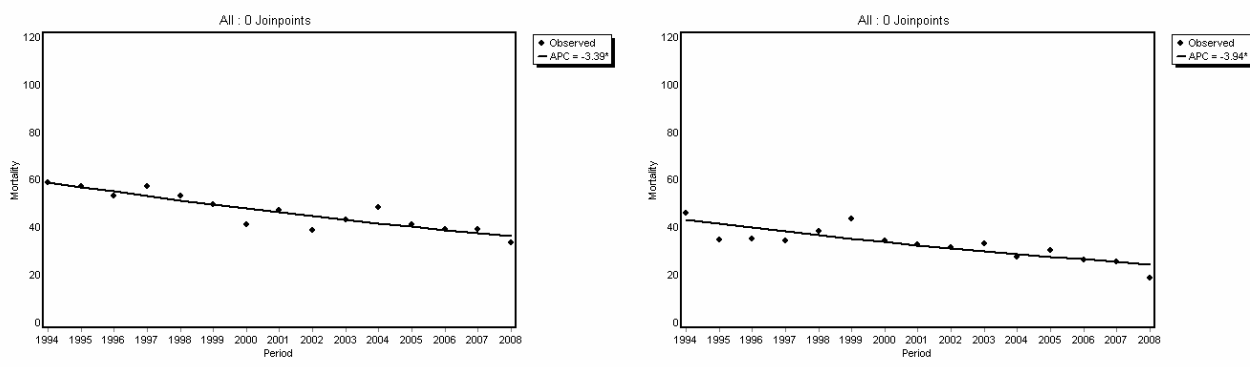


Figura 4. Trend temporali di mortalità per tumori maligni dello stomaco (C16) maschi (a sinistra) e femmine (a destra), 1994-2008.

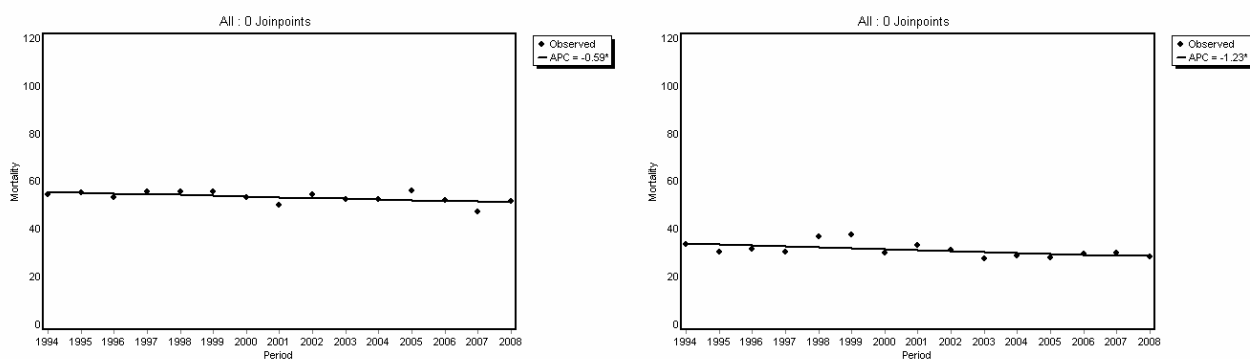


Figura 5. Trend temporali di mortalità per tumori maligni del colon-retto (C18-C21) maschi (a sinistra) e femmine (a destra), 1994-2008.

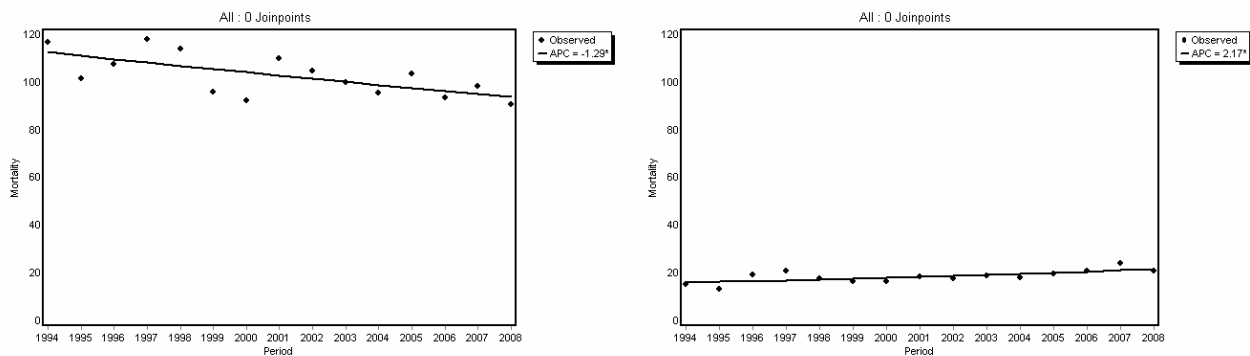


Figura 6. Trend temporali di mortalità per tumori maligni del polmone (C34) maschi (a sinistra) e femmine (a destra), 1994-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

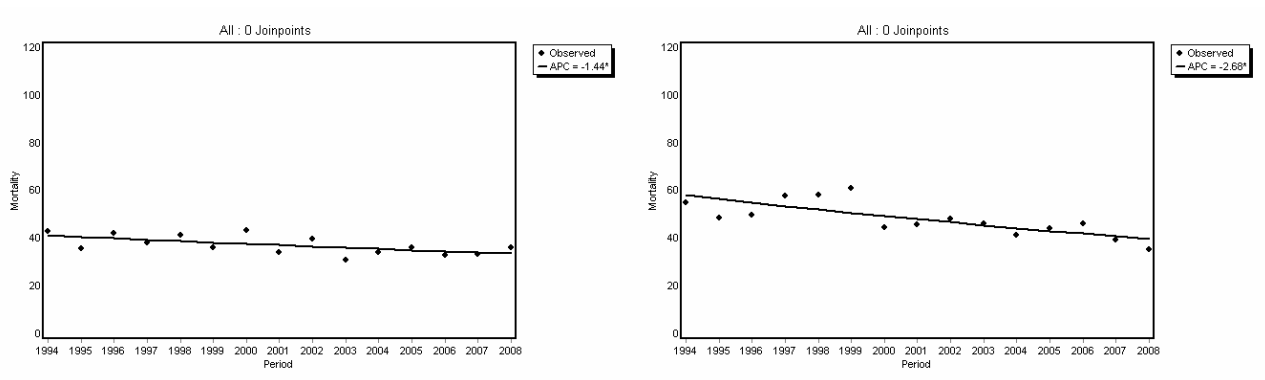


Figura 7. Trend temporali di mortalità per tumori maligni della mammella femminile (C50) (a sinistra) e della prostata (C61) (a destra), 1994-2008.

Per una analisi più approfondita degli andamenti della mortalità, e dell'incidenza, per cancro si rimanda al recente report pubblicato dal Registro Tumori di Popolazione Umbro (RTUP) [5].



www.rtup.unipg.it

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Mortalità per malattie endocrine, della nutrizione e del metabolismo (E00-E90).

L'andamento della mortalità per queste cause è riportato in figura 8 e in tabella 4. A un decremento degli indici fino al 2000-2001, segue un incremento degli stessi nel periodo successivo.

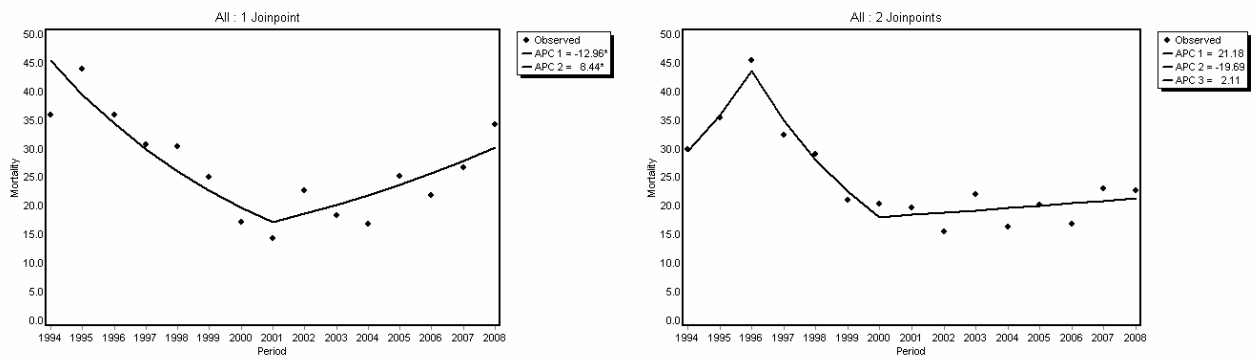


Figura 8 Trend temporali di mortalità per malattie endocrine, della nutrizione e del metabolismo (E00-E90) maschi (a sinistra) e femmine (a destra), 1994-2008.

Tabella 4 Tassi standardizzati di mortalità per malattie endocrine, della nutrizione e del metabolismo (E00-E90).

ICD10	MASCHI			var.	FEMMINE			var.
	1994-1998	1999-2003	2004-2008	94-08	1994-1998	1999-2003	2004-2008	94-08
E03 Altro ipotiroidismo	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
E04 Altro gozzo non tossico	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1
E05 Ipertiroidismo	0.1	0.2	0.1	0.0	0.3	0.2	0.1	-0.2
E06 Tiroidite	0.0	0.0		0.0	0.0	0.0	0.0	0.0
E07 Al.disturbi tiroide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E10 Diabete mellito insul.dipendente	31.5	16.9	22.0	-9.5	32.0	16.8	16.4	-15.6
E15 Coma ipoglic.non diabetico	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
E16 Al.dist.secrez.pancre.interna	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
E21 Ipoparatiroid.al.dist.paratiroide	0.1	0.0	0.0	-0.1	0.0	0.0	0.1	0.1
E22 Iperfunzione gh.pituitaria	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
E23 Ipofunz.al.dist.gh.pituitaria	0.1	0.0	0.1	0.0	0.1	0.1	0.0	-0.1
E24 Sindrome di Cushing	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
E27 Al.dist.gh.surrenali	0.1	0.4	0.2	0.1	0.1	0.1	0.2	0.1
E34 Al.dist.gh.endocrine	0.1	0.1	0.0	-0.1	0.0	0.0	0.0	0.0
E41 Marasma nutrizionale	0.1	0.3	0.0	-0.1	0.1	0.3	0.0	-0.1
E43 Malnutriz.grave proteine	0.0	0.1	0.1	0.1	0.2	0.0	0.1	-0.1
E46 Malnutriz.proteine ns	0.2	0.1	0.0	-0.2	0.1	0.0	0.0	-0.1
E63 Al.defic.nutrizionali	0.2	0.1	0.1	-0.1	0.1	0.0	0.0	-0.1
E66 Obesita'	0.4	0.0	0.4	0.0	0.7	0.4	0.8	0.1
E67 Al.iperalimentazione	0.0	0.0	0.2	0.2	0.1	0.0	0.0	-0.1
E72 Al.dist.metab.aminoacidi	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
E74 Al.dist.metab.carboidrati	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1
E75 Dist.metab.sfingolipidi al.	0.2	0.1	0.2	0.0	0.2	0.0	0.0	-0.2
E78 Dist.metab.lipoprot.al.lipidemie	0.1	0.3	0.1	0.0	0.1	0.2	0.1	0.0
E80 Dist.metab.porfirin.bilirubina	0.1	0.0	0.0	-0.1	0.0	0.1	0.0	0.0
E83 Dist.metab.minerali	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
E84 Fibrosi cistica	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
E85 Amiloidosi	0.2	0.1	0.3	0.1	0.0	0.3	0.1	0.1
E86 Ipovolemia	0.7	0.5	0.9	0.2	0.2	0.5	0.9	0.7
E87 Al.dist.fluidi elettrol.bil.acidobase	0.4	0.1	0.1	-0.3	0.0	0.1	0.3	0.3
E88 Al.dist.metabolici	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0
E00-E90 Tutte le cause	35.1	19.5	25.1	-10.0	34.6	19.8	19.7	-14.9

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Andamento sovrapponibile si ha esaminando la mortalità per diabete (E10), che costituisce la causa di morte più importante di questo gruppo di malattie (figura 9).

Anche se, complessivamente, dal 1994 al 2008 si assiste a una diminuzione della mortalità, in ambo i sessi, dagli anni 2000 si è verificato un incremento, anche se non significativo. Questo andamento potrebbe essere legato anche a un cambiamento dei criteri di diagnosi, e quindi di codifica, da parte dei medici necroscopi nel definire la causa principale della morte.

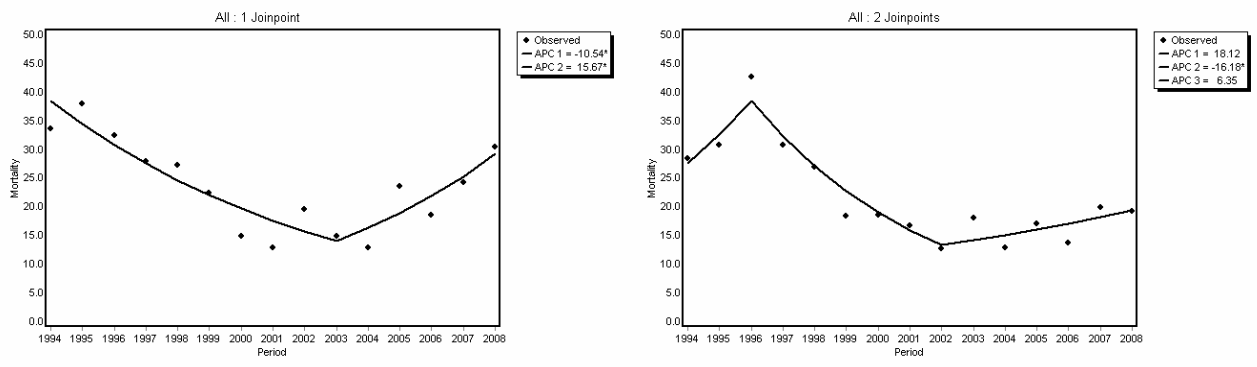


Figura 9. Trend temporali di mortalità per diabete (E10) maschi (a sinistra) e femmine (a destra), 1994-2008.

Mortalità per malattie del sistema nervoso (G00-G99).

La mortalità per malattie del sistema nervoso presenta un andamento discontinuo con un evidente joinpoint negli anni 2005-2006 (figura 10). Dall'esame della tabella 4 e delle figure 11 e 12 si può ipotizzare che tale andamento sia legato a quello della mortalità per le malattie di Parkinson (G20) e di Alzheimer (G30.9) che, nell'ultimo periodo, costituiscono circa il 65% della mortalità per malattie del sistema nervoso. Praticamente, nel periodo più recente, non esistono differenze tra la frequenza nei due sessi; tuttavia l'incremento della mortalità è più elevato nelle femmine che non nei maschi.

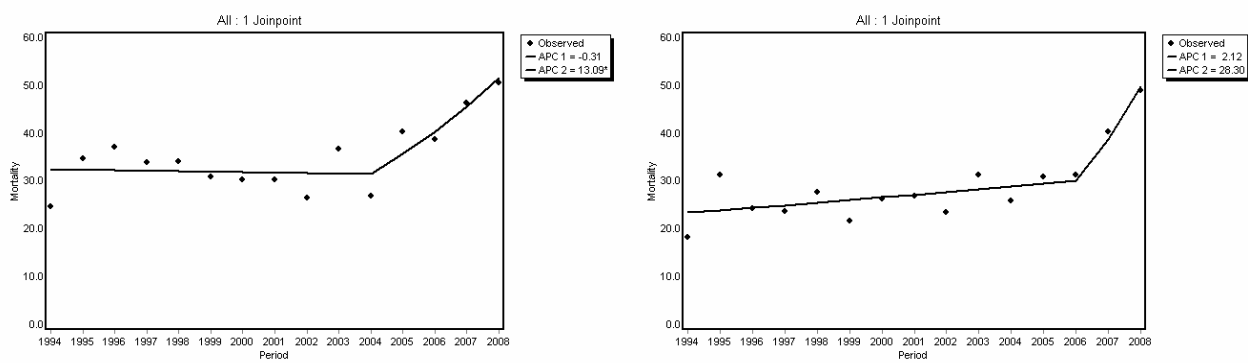


Figura 10. Trend temporali di mortalità per malattie del sistema nervoso (G00-G99) maschi (a sinistra) e femmine (a destra), 1994-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 5. Tassi standardizzati di mortalità per malattie del sistema nervoso (G00-G99).

ICD10	MASCHI				var. 94-08	FEMMINE			
	1994-1998	1999-2003	2004-2008			1994-1998	1999-2003	2004-2008	var. 94-08
G00 Meningite batterica	0.4	0.1	0.3	-0.1	0.1	0.3	0.3	0.2	
G03 Meningite per al.e n.s.cause	0.2	0.2	0.1	-0.1	0.1	0.0	0.1	0.0	
G04 Encefalite mielite ed encefalo	0.6	0.4	0.3	-0.3	0.3	0.2	0.3	0.0	
G05 Encef.miel.encefalomiel.in altre	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	
G06 Ascesso intracr.intrasp.granuloma	0.2	0.0	0.2	0.0	0.0	0.1	0.2	0.2	
G08 Flebite intracr.intrasp.trombofl.	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	
G09 Postumi mal.infiamm. snc	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	
G10 Malattia di Huntington	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.0	
G11 Atassia ereditaria	0.1	0.1	0.1	0.0	0.2	0.1	0.1	-0.1	
G12 Atrofia muscolare spinale e sindr	1.5	2.8	2.4	0.9	1.3	1.4	2.4	1.1	
G20 Malattia di Parkinson	10.1	7.9	12.4	2.3	6.0	4.9	12.4	6.4	
G21 Parkinson secondario	0.4	0.0	0.0	-0.4	0.0	0.1	0.0	0.0	
G25 Altri dist.extrapiram.e del mov.	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	
G30 Alzheimer	7.5	10.2	14.5	7.0	5.9	10.4	14.5	8.6	
G31 Al.mal.degener.sist.nerv.n.a.s.	4.8	6.2	5.3	0.5	5.8	5.5	5.3	-0.5	
G35 Sclerosi multipla	0.3	0.3	0.5	0.2	0.7	0.7	0.5	-0.2	
G37 Al.demieli.acute diss.del snc	0.1	0.0	0.1	0.0	0.3	0.0	0.1	-0.2	
G40 Epilessia	0.4	0.3	0.5	0.1	0.4	0.3	0.5	0.1	
G41 Stato epilettico	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
G45 TIA cerebrale e sindr.corr.	1.3	0.4	0.2	-1.1	1.0	0.2	0.2	-0.8	
G60 Neuropat.ereditaria e idiopatica	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	
G60 Neuropat.ereditaria e idiopatica	0.0	0.1	0.1	0.1	0.2	0.0	0.1	-0.1	
G61 Polineurop.infiammatoria	0.4	0.2	0.3	-0.1	0.1	0.2	0.3	0.2	
G62 Altre polineuropatie	0.1	0.0	0.1	0.0	0.1		0.1	0.0	
G70 Miastenia grave e al.dist.mioneur,	0.3	0.1	0.0	-0.3	0.0	0.1	0.0	0.0	
G71 Disturbi primari dei muscoli	0.3	0.2	0.6	0.3	0.1	0.1	0.6	0.5	
G72 Altre miopatie	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	
G80 Paralisi cerebr.infantile	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	
G81 Emiplegia	1.0	0.2	0.3	-0.7	1.0	0.2	0.3	-0.7	
G82 Paraplegia e tetraplegia	0.5	0.1	0.5	0.0	0.1	0.1	0.5	0.4	
G83 Altre sindromi paralitiche	0.3	0.0	0.1	-0.2	0.1	0.0	0.1	0.0	
G90 Disturbi sist.nerv.autonomo	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	
G91 Idrocefalo	0.7	0.3	0.6	-0.1	0.3	0.4	0.6	0.3	
G93 Altri dist.del cervello	0.7	0.3	0.5	-0.2	0.3	0.2	0.5	0.2	
G95 Altre mal.midollo spinale	0.4	0.2	0.2	-0.2	0.2	0.2	0.2	0.0	
G96 Altri dist.snc	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	
G99 Altri dist.snc in altre malattie	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	
G00-G99 Tutte le cause	33.0	31.0	40.8	7.8	25.2	26.1	40.8	15.6	

Anche questo andamento, con un joinpoint così netto, potrebbe essere collegato anche a una modificazione dei criteri di diagnosi delle cause di morte.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

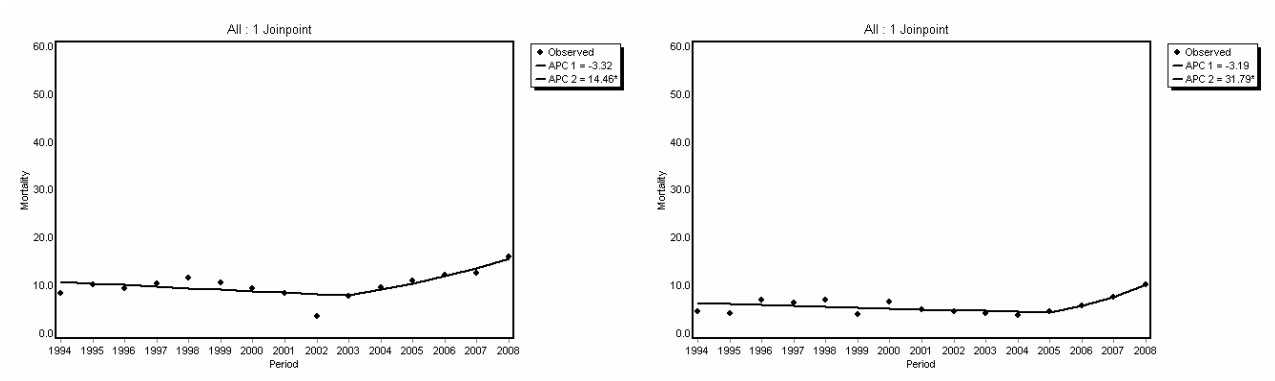


Figura 11. Trend temporali di mortalità per morbo di Parkinson (G20) maschi (a sinistra) e femmine (a destra), 1994-2008.

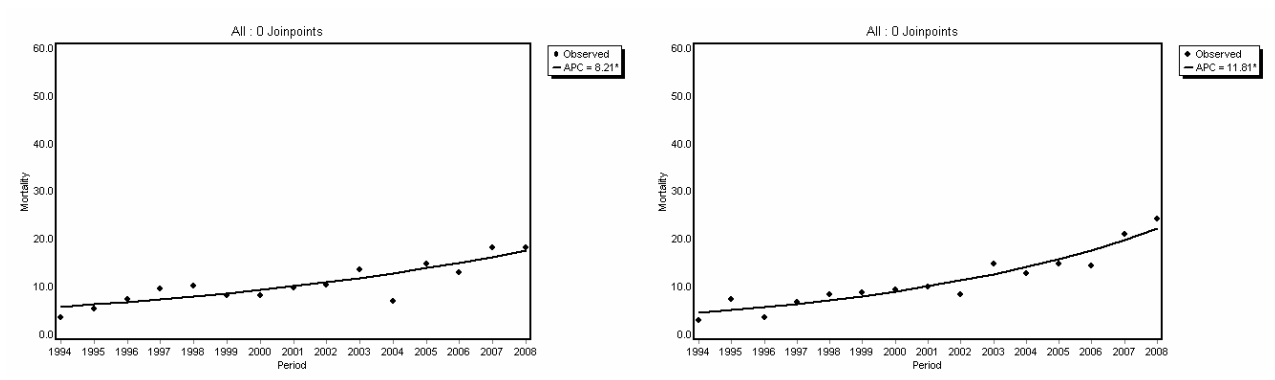


Figura 12. Trend temporali di mortalità per morbo di Alzheimer (G30.9) maschi (a sinistra) e femmine (a destra), 1994-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Mortalità per malattie del sistema cardio-circolatorio (I00-I99).

I tassi di mortalità per malattie del sistema cardio-circolatorio sono in costante, significativa, diminuzione nei due sessi (figura 13 e tabella 6). Gli indici diminuiscono del 28% nei maschi e del 29% nelle femmine.

Tale diminuzione si riscontra, evidentemente, anche per i due gruppi più importati: le malattie ischemiche del cuore (I20-I25) e le malattie circolatorie dell'encefalo (figura 14 e 15)

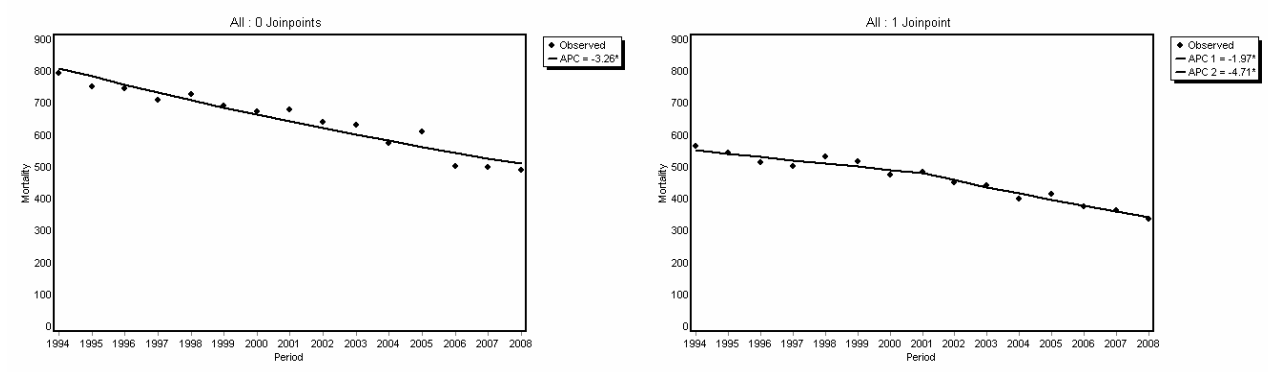


Figura 13. Trend temporali di mortalità per malattie del sistema cardio-circolatorio (I00-I99) maschi (a sinistra) e femmine (a destra), 1994-2008.

Tabella 6. Tassi standardizzati di mortalità per malattie del sistema cardio-circolatorio (I00-I99).

ICD10	MASCHI				FEMMINE			
	1994-1998	1999-2003	2004-2008	var. 98-08	1994-1998	1999-2003	2004-2008	var. 98-08
I01 Febbre reumat.compl.cardiache	0.5	0.1	0.0	-0.5	0.7	0.0	0.0	-0.7
I05 Mal.reumat.valv.mitrale	1.6	0.7	0.6	-1.0	2.6	1.0	0.8	-1.8
I06 Mal.reumat.valv.aortica	0.7	0.6	1.0	0.3	0.6	0.5	0.6	0.0
I07 Mal.reumat.valv.tricuspile	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
I08 Mal.reumat.valv.multiple	1.4	0.8	1.3	-0.1	2.6	1.4	1.8	-0.8
I09 Altre mal.reumat.cuore	0.5	0.7	0.3	-0.2	0.6	0.6	0.5	-0.1
I10 Ipertensione essenziale	7.1	7.0	7.6	0.5	6.9	6.1	6.7	-0.2
I11 Mal.ipertensiva cardiaca	18.1	25.7	21.3	3.2	19.2	26.6	22.0	2.8
I12 Mal.ipertensiva renale	1.1	1.2	0.7	-0.4	1.1	1.0	0.8	-0.3
I13 Mal.ipertens.card.renale	1.0	0.9	0.5	-0.5	1.0	0.7	0.8	-0.2
I20 Angina pectoris	1.0	1.1	0.3	-0.7	0.3	0.6	0.1	-0.2
I21 Infarto miocardico acuto	122.1	103.2	92.3	-29.8	59.9	54.7	46.2	-13.7
I22 Infarto miocardico successivo	0.0	0.7	0.4	0.4	0.0	0.1	0.2	0.2
I23 Complic.infarto miocard.acuto	0.2	0.0	0.1	-0.1	0.2	0.0	0.0	-0.2
I24 Al.mal.ischem.acute cuore	3.5	8.9	4.6	1.1	1.6	4.2	2.9	1.3
I25 Ischemia cardiaca cronica	157.6	143.7	104.8	-52.8	114.2	100.2	69.2	-45.0
I26 Embolia polmonare	3.3	3.7	4.0	0.7	3.4	3.4	3.1	-0.3
I27 Al.mal.cardiopulmonari	9.8	7.3	4.2	-5.6	3.4	2.4	2.3	-1.1
I28 Al.mal.vasi polmonari	0.1	0.5	0.0	-0.1	0.0	0.0	0.0	0.0
I30 Pericardite acuta	0.0	0.2	0.1	0.1	0.0	0.0	0.1	0.1
I31 Al.malattie pericardio	0.3	0.3	0.1	-0.2	0.1	0.2	0.2	0.1
I32 Pericardite in al.malattie	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
I33 Endocardite acuta subacuta	0.0	0.2	0.7	0.7	0.1	0.1	0.1	0.0
I34 Dist.non reum.val.mitrale	0.2	1.5	1.6	1.4	1.2	1.7	1.8	0.6
I35 Dist.non reum.val.aortica	0.9	3.1	3.4	2.5	1.6	2.7	3.3	1.7
I36 Dist.non reum.val.tricuspile	2.7	0.0	0.0	-2.7	0.0	0.0	0.0	0.0
I37 Dist.valvola polmonare	0.0	0.1	0.0	0.0	0.7	0.0	0.1	-0.6
I38 Endocardite valvole n.s.	0.9	1.1	1.6	0.7	0.0	1.0	1.2	1.2

segue

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

segue tabella 6

ICD10	MASCHI				FEMMINE			
	1994-1998	1999-2003	2004-2008	var. 98-08	1994-1998	1999-2003	2004-2008	var. 98-08
I40 Miocardite acuta	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0
I42 Cardiomiopatia	12.6	3.6	2.8	-9.8	7.2	2.0	0.8	-6.4
I43 Cardiomiopatia in al.malattia	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
I44 Blocco atrioventricolare	0.9	0.3	0.8	-0.1	0.3	0.5	0.4	0.1
I45 Al.dist.conduzione	0.4	0.3	0.1	-0.3	0.2	0.2	0.2	0.0
I46 Arresto cardiaco	19.0	13.4	4.4	-14.6	13.9	9.5	2.5	-11.4
I47 Tachicardia parossistica	0.4	0.1	0.0	-0.4	0.3	0.2	0.3	0.0
I48 Fibrill.atriale flutter	3.7	6.1	8.6	4.9	4.2	5.2	8.4	4.2
I49 Altre aritmie cardiache	3.1	3.2	3.7	0.6	1.8	2.0	2.5	0.7
I50 Collasso cardiaco	26.7	26.4	34.2	7.5	24.0	23.5	28.6	4.6
I51 Forme complic.n.s.cardiache	48.2	46.4	28.1	-20.1	36.1	30.2	18.3	-17.8
I60 Emorragia subaracnoidea	1.6	1.9	1.6	0.0	3.2	1.8	2.3	-0.9
I61 Emorragia intracerebrale	24.7	26.0	26.2	1.5	16.6	15.1	16.4	-0.2
I62 Al.emorr.intracran.non traumatiche	1.5	1.9	3.4	1.9	1.0	1.2	1.5	0.5
I63 Infarto cerebrale	2.5	0.5	1.1	-1.4	0.7	0.9	0.5	-0.2
I64 Ictus ns emorrag.o infarto	124.9	101.7	73.8	-51.1	102.1	85.2	60.9	-41.2
I65 Occlus.sten.arter.precerebrali	1.2	2.1	2.0	0.8	0.4	1.5	1.0	0.6
I66 Occlus.sten.arter.cerebrali	6.7	2.0	10.9	4.2	5.7	1.2	7.8	2.1
I67 Al.malattie cerebrovascolari	59.2	48.0	25.7	-33.5	44.9	36.6	20.9	-24.0
I69 Postumi mal.cerebrovascolari	23.2	20.9	18.5	-4.7	16.2	18.9	15.1	-1.1
I70 Aterosclerosi	25.8	22.3	18.2	-7.6	19.0	17.9	14.9	-4.1
I71 Aneurisma disseca.aorta	12.5	10.3	9.2	-3.3	3.1	2.7	2.5	-0.6
I72 Altro aneurisma	0.6	0.7	0.2	-0.4	0.3	0.2	0.1	-0.2
I73 Al.mal.vascol.periferiche	3.2	3.6	0.5	-2.7	1.4	2.3	0.4	-1.0
I74 Embolia trombosi arterie	2.4	1.5	2.1	-0.3	1.6	0.4	0.8	-0.8
I77 Al.dist.arterie arteriole	1.6	0.6	0.3	-1.3	0.9	0.3	0.1	-0.8
I78 Malattie dei capillari	0.1	0.1	0.0	-0.1	0.0	0.0	0.0	0.0
I80 Flebite tromboflebite	1.6	1.5	2.2	0.6	2.4	2.0	2.3	-0.1
I81 Trombosi vena porta	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
I82 Tromb.embolie altre vene	0.5	0.0	0.2	-0.3	0.2	0.3	0.1	-0.1
I83 Varici arti inferiori	0.1	0.4	0.0	-0.1	0.0	0.0	0.1	0.1
I84 Emorroidi	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
I85 Varici esofagee	0.2	0.3	0.1	-0.1	0.0	0.0	0.0	0.0
I89 Dist.noninfet.vasi linf.linfonodi	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
I95 Ipotensione	0.2	0.2	0.1	-0.1	0.2	0.0	0.2	0.0
I98 Dist.circ.in al.malattie	0.1	0.1	0.0	-0.1	0.1	0.0	0.0	-0.1
I99 Al.n.s.dist.circolatori	0.4	3.5	2.3	1.9	0.5	2.1	1.7	1.2
I00-I99 Tutte le cause	744.4	663.4	532.8	-211.6	530.6	473.5	376.4	-154.2

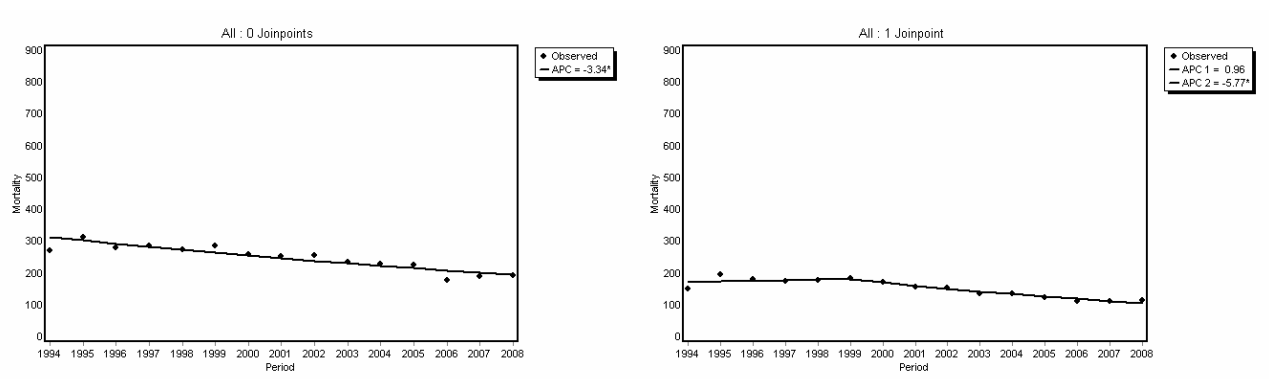


Figura 14. Trend temporali di mortalità per malattie ischemiche del cuore (I20-I25) maschi (a sinistra) e femmine (a destra), 1994-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

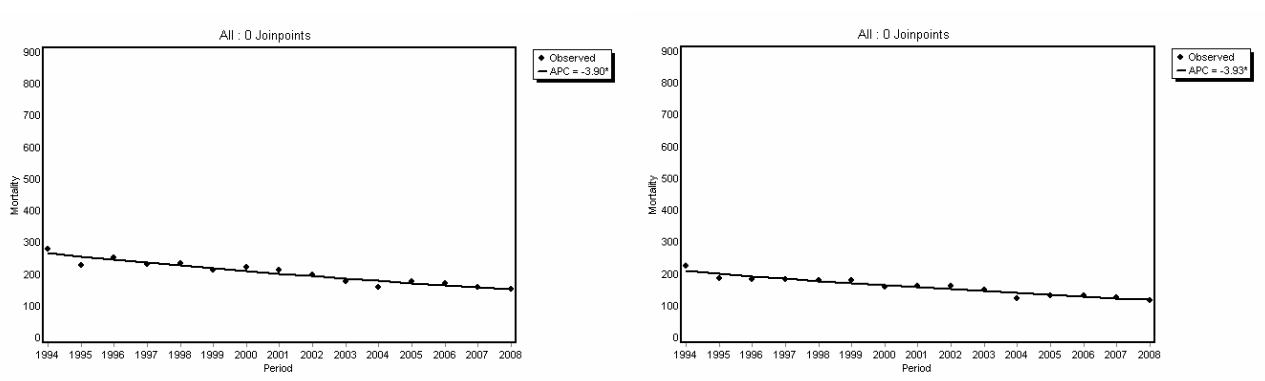


Figura 15. Trend temporali di mortalità per malattie circolatorie dell'encefalo (I60-I69) maschi (a sinistra) e femmine (a destra), 1994-2008.

Mortalità per malattie dell'apparato respiratorio (J00-J99).

Il trend di mortalità per malattie dell'apparato respiratorio si presenta in leggera e non significativa riduzione, nei maschi, e praticamente costante nelle femmine (figura 16 e tabella 7).

Andamento del tutto simile presenta la mortalità per broncopneumopatie cronico-ostruttive (figura 17).

Anche le polmoniti (J12-J18), che costituiscono per importanza il secondo gruppo di malattie, presentano un notevole decremento.

La mortalità per influenza (J06-J10), nel periodo più recente, è pari a 0.8 per 100.000 abitante nei maschi e 0.9 nelle femmine (tabella 7).

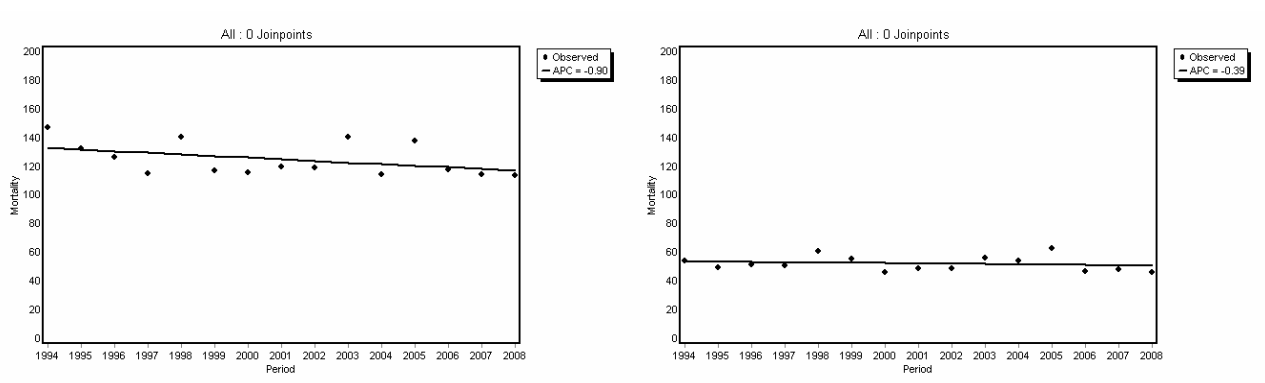


Figura 16. Trend temporali di mortalità per malattie dell'apparato respiratorio (J00-J99) maschi (a sinistra) e femmine (a destra), 1994-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 7. Tassi standardizzati di mortalità per malattie dell'apparato respiratorio (J00-J99).

ICD10	MASCHI				FEMMINE			
	1994-1998	1999-2003	2004-2008	var. 98-08	1994-1998	1999-2003	2004-2008	var. 98-08
J04 Laring. e tracheite acuta	0.2	0.0	0.0	-0.2	0.0	0.0	0.0	0.0
J06 Infez.mult.n.s vie aeree sup.	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
J10 Influenza da virus infl.spec.	1.9	1.1	0.7	-1.2	1.7	0.7	0.8	-0.9
J12 Polmonite virale n.a.s.	0.1	0.1	0.2	0.1	0.3	0.2	0.1	-0.2
J13 Polm. da Streptococco pn.	0.9	0.1	0.6	-0.3	0.3	0.0	0.3	0.0
J15 Polmonite batterica n.a.s	0.5	1.4	0.5	0.0	0.7	0.5	0.4	-0.3
J17 Polmonite in altre malattie	0.0	0.0	0.2	0.2	0.0	0.0	0.1	0.1
J18 Polmonite da organismo n.s.	28.7	25.0	23.9	-4.8	19.2	18.0	13.5	-5.7
J20 Bronchite acuta	0.6	0.6	0.6	0.0	0.8	0.9	0.6	-0.2
J21 Bronchiolite acuta	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1
J32 Sinusite cronica	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
J35 Mal.cron. tonsille e adenoidi	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
J37 Laring. e laringotrach.cronica	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
J39 Altre mal.vie respir.sup.	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
J40 Bronch.n.s.se acuta o cronica	0.5	0.6	1.9	1.4	0.4	0.2	1.0	0.6
J41 Bronch.cron.semplice e mucopur.	2.9	3.9	1.0	-1.9	0.6	1.5	0.5	-0.1
J42 Bronch. cronica n.s.	6.9	6.2	5.3	-1.6	2.4	1.9	2.0	-0.4
J43 Enfisema	5.8	3.5	2.0	-3.8	0.8	0.5	0.5	-0.3
J44 Altre mal.polm.cron.ostr.	58.4	56.4	55.6	-2.8	14.2	14.8	15.5	1.3
J45 Asma	5.2	3.3	0.5	-4.7	3.2	1.6	0.9	-2.3
J47 Bronchiectasia	0.2	0.1	0.1	-0.1	0.1	0.1	0.1	0.0
J60 Pneumoconiosi da carbone	0.4	0.7	0.1	-0.3	0.0	0.0	0.0	0.0
J61 Pneumocon.da asb.e al.fibre minerali	0.2	0.1	0.1	-0.1	0.0	0.0	0.0	0.0
J62 Pneumocon.da polv.silicee	1.4	0.9	1.0	-0.4	0.0	0.0	0.0	0.0
J64 Pneumoconiosi n.s.	0.4	0.2	0.2	-0.2	0.0	0.0	0.0	0.0
J67 Pneumopat.da ipersens.a pol.organiche	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
J68 Cond.resp.da inalaz.sost.chim.gas fumi vapori	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
J69 Pneumopatia da sost.solide e liquide	0.3	2.3	2.9	2.6	0.3	0.9	1.3	1.0
J81 Edema polmonare	5.0	4.7	4.5	-0.5	3.1	3.6	3.4	0.3
J84 Altre mal.pol.interstiziali	2.3	3.5	5.3	3.0	2.2	1.8	3.1	0.9
J85 Ascenso del polm.e mediastino	0.1	0.2	0.0	-0.1	0.0	0.0	0.0	0.0
J86 Pitorace	0.2	0.2	0.2	0.0	0.2	0.1	0.0	-0.2
J90 Effusione pleura n.a.s.	0.8	1.2	1.0	0.2	0.4	0.2	0.8	0.4
J93 Pneumotorace	0.1	0.2	0.2	0.1	0.0	0.0	0.1	0.1
J95 Dis.resp.postproced.n.a.s	0.2	0.2	0.2	0.0	0.0	0.2	0.1	0.1
J96 Collasso resp.n.a.s.	0.6	0.3	0.7	0.1	0.2	0.3	0.6	0.4
J98 Altre malattie resp.	7.0	5.1	9.3	2.3	1.9	2.8	5.1	3.2
J99 Mal.resp.in altre malattie	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
J00-j99 Tutte le cause	131.9	122.7	118.9	-13.0	53.4	51.0	51.2	-2.2

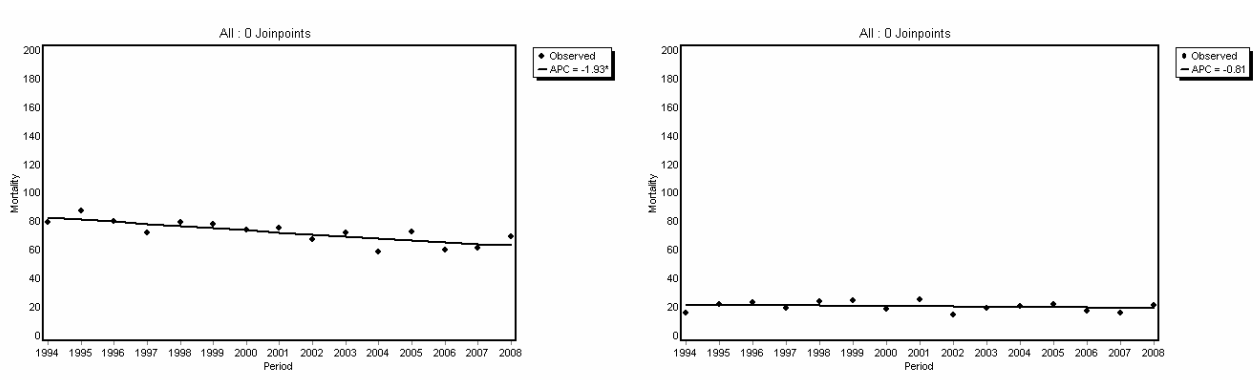


Figura 17. Trend temporali di mortalità per broncopneumopatie croniche ostruttive (J40-J47) maschi (a sinistra) e femmine (a destra), 1994-2008.

Mortalità per malattie dell'apparato digerente (K00-K93).

La figura 18 mostra come per le malattie dell'apparato digerente si assiste a una costante e significativa riduzione della mortalità, in ambo i sessi.

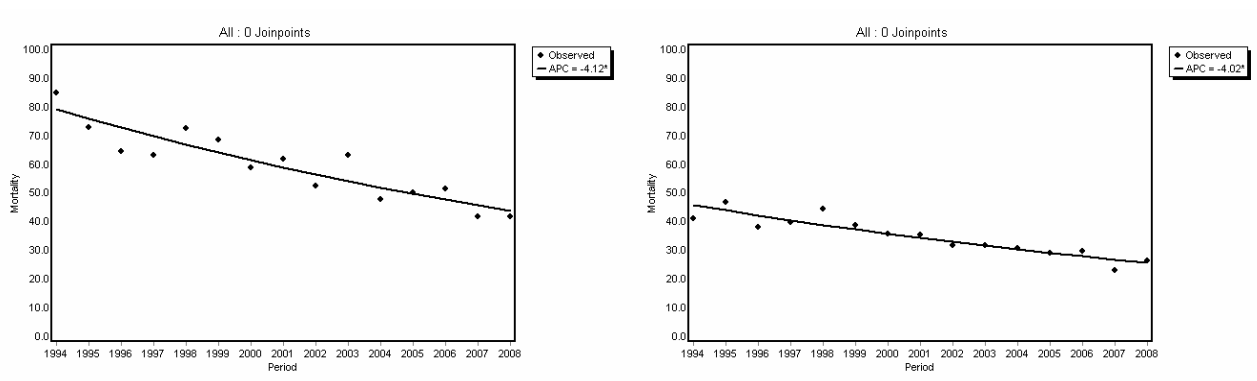


Figura 18. Trend temporali di mortalità per malattie dell'apparato digerente (K00-K93) maschi (a sinistra) e femmine (a destra), 1994-2008.

La principale causa di morte è costituita dalla fibrosi e cirrosi epatica (K74) che presenta una riduzione della mortalità pari a circa il 57% nei maschi e al 64% nelle femmine (figura 19 e tabella 8).

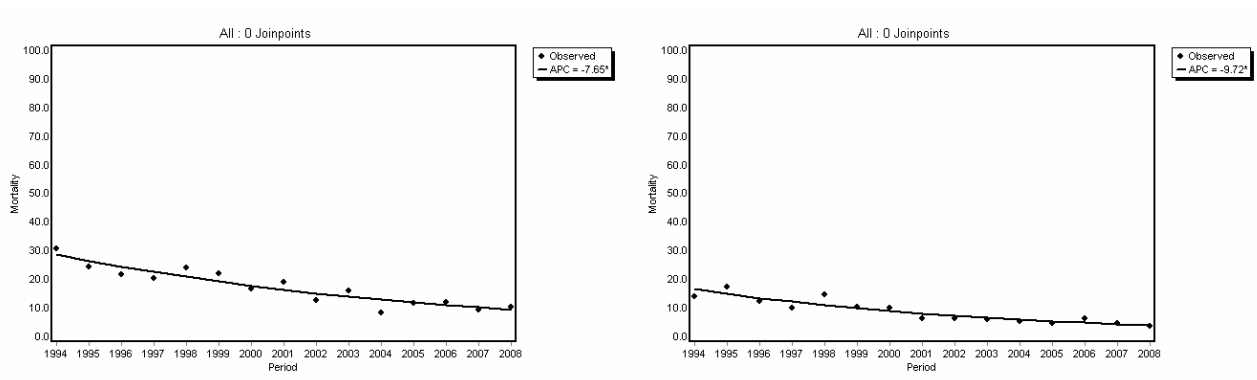


Figura 19. Trend temporali di mortalità per fibrosi e cirrosi epatica (K74) maschi (a sinistra) e femmine (a destra), 1994-2008.

Diminuisce anche la mortalità per ulcera gastro-duodenale (K25- K28) (tabella 8).

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 8. Tassi standardizzati di mortalità per malattie dell'apparato digerente (K00-K93).

ICD10	MASCHI				var. 94-08	FEMMINE				var. 94-08
	1994-1998	1999-2003	2004-2008			1994-1998	1999-2003	2004-2008		
K13 Al.mal.labbra mucosa orale	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	
K22 Al.malattie esofago	0.5	0.3	0.3	-0.2	0.3	0.1	0.1	0.1	-0.2	
K25 Ulcera gastrica	3.2	2.1	0.9	-2.3	1.6	1.1	0.9	0.9	-0.7	
K26 Ulcera duodenale	2.7	2.0	1.4	-1.3	1.4	1.3	0.6	0.6	-0.8	
K27 Ulcera peptica sito ns	0.7	0.4	0.1	-0.6	0.2	0.1	0.2	0.2	0.0	
K28 Ulcera gastroduodenale	0.2	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	
K29 Gastrite e duodenite	0.6	0.3	0.0	-0.6	0.2	0.1	0.1	0.1	-0.1	
K30 Dispepsia	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	
K31 Al.mal.stomaco duodeno	0.2	0.1	0.2	0.0	0.1	0.2	0.1	0.1	0.0	
K35 Appendicite acuta	0.3	0.1	0.1	-0.2	0.1	0.0	0.1	0.1	0.0	
K40 Ernia inguinale	1.2	0.5	0.6	-0.6	0.2	0.0	0.1	0.1	-0.1	
K41 Ernia femorale	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	
K42 Ernia ombelicale	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.0	-0.2	
K43 Ernia ventrale	0.0	0.1	0.0	0.0	0.3	0.1	0.0	0.0	-0.3	
K44 Ernia diaframmatica	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	
K45 Al.ernia addominale	0.2	0.1	0.1	-0.1	0.6	0.2	0.1	0.1	-0.5	
K46 Ernia addominale ns	0.4	0.1	0.1	-0.3	0.3	0.1	0.1	0.1	-0.2	
K50 Malattia di Crohn	0.2	0.2	0.3	0.1	0.1	0.3	0.2	0.2	0.1	
K51 Colite ulcerativa	0.1	0.3	0.3	0.2	0.1	0.1	0.3	0.3	0.2	
K52 Colite gastroent.non infettiva	0.4	0.1	0.2	-0.2	0.3	0.0	0.0	0.0	-0.3	
K55 Dist.vascolari intestino	3.1	3.0	3.2	0.1	2.4	2.2	2.9	2.9	0.5	
K56 Ileo paralit.ostruz.intest.senza ernia	5.9	7.1	5.9	0.0	3.5	4.6	4.4	4.4	0.9	
K57 Mal.diverticolare intestino	0.7	0.6	0.5	-0.2	0.5	0.4	0.5	0.5	0.0	
K59 Al.dist.funz.intestinale	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.2	
K60 Fistola anale reg.rettale	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	
K61 Ascesso anale reg.rettale	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	-0.1	
K62 Al.malattie ano retto	0.1	0.2	0.3	0.2	0.1	0.3	0.4	0.4	0.3	
K63 Al.malattie intestino	0.4	2.1	1.6	1.2	0.6	1.7	0.9	0.9	0.3	
K65 Peritonite	2.1	1.7	1.4	-0.7	0.9	1.6	1.1	1.1	0.2	
K66 Al.dist.peritoneo	0.2	0.3	0.2	0.0	0.1	0.1	0.0	0.0	-0.1	
K67 Dist.peritoneo in al.malattie	0.1	0.1	0.0	-0.1	0.1	0.0	0.1	0.1	0.0	
K70 Mal.alcoolica fegato	4.8	3.8	3.4	-1.4	1.1	1.8	0.7	0.7	-0.4	
K72 Insuff.epatica n.a.s.	0.5	0.3	0.2	-0.3	0.5	0.0	0.1	0.1	-0.4	
K73 Epatite cronica n.a.s.	1.4	1.4	0.8	-0.6	1.4	0.9	0.6	0.6	-0.8	
K74 Fibrosi e cirrosi epatica	24.2	17.3	10.4	-13.8	13.7	7.8	4.9	4.9	-8.8	
K75 Al.mal.infiamm.fegato	0.1	0.2	0.0	-0.1	0.4	0.4	0.1	0.1	-0.3	
K76 Al.malattie fegato	2.6	3.2	1.8	-0.8	1.6	1.0	0.7	0.7	-0.9	
K77 Mal.fegato in al.malattie	0.7	0.8	0.0	-0.7	0.1	0.5	0.0	0.0	-0.1	
K80 Colelitiasi	1.8	0.6	0.6	-1.2	1.4	0.6	0.6	0.6	-0.8	
K81 Colecistite	1.0	0.9	1.1	0.1	1.1	0.6	0.8	0.8	-0.3	
K82 Al.malattie colecisti	0.7	0.4	0.2	-0.5	0.1	0.1	0.1	0.1	0.0	
K83 Al.malattie vie biliari	0.9	0.9	1.1	0.2	0.8	0.4	0.5	0.5	-0.3	
K85 Altre pancreatiti	2.6	2.4	2.5	-0.1	1.8	2.0	1.4	1.4	-0.4	
K86 Al.malattie pancreas	0.2	0.3	0.2	0.0	0.2	0.4	0.1	0.1	-0.1	
K90 Malassorbimento intestinale	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
K91 Postumi interv.sist.digerente	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	
K92 Al.mal.sist.digerente	6.0	6.4	5.6	-0.4	3.3	2.8	3.3	3.3	0.0	
K00-K99 Tutte le cause	71.3	61.0	46.2	-25.1	42.0	34.7	27.6	27.6	-14.4	

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Mortalità per malattie dell'apparato genito-urinario (N00-N99).

Questo raggruppamento di cause di morte presenta, nel periodo considerato, un andamento costante sia nei maschi che nelle femmine (figura 20 e tabella 9).

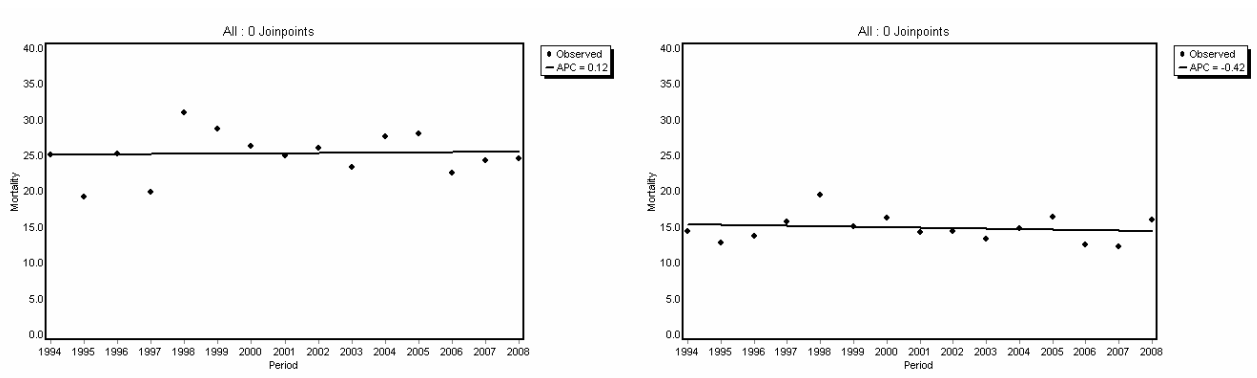


Figura 20. Trend temporali di mortalità per malattie dell'apparato genito-urinario (N00-N99) maschi (a sinistra) e femmine (a destra), 1994-2008.

Tabella 9. Tassi standardizzati di mortalità malattie dell'apparato genito-urinario (N00-N99).

ICD10	MASCHI			var. 94-08	FEMMINE			var. 94-08
	1994-1998	1999-2003	2004-2008		1994-1998	1999-2003	2004-2008	
N00-N08 Malattie glomerulari	1.0	0.7	0.4	-0.6	0.4	0.6	0.4	0.0
N10-N16 Mal.tubulointerst.renali	0.7	0.7	0.4	-0.3	0.4	0.3	0.3	-0.1
N17 Insuff.renale acuta	2.0	3.0	2.3	0.3	2.3	2.9	1.9	-0.4
N18 Insuff.renale cronica	12.8	16.4	14.7	1.9	6.8	8.4	7.6	0.8
.8N19 Insuff.renale ns	3.3	3.7	4.9	1.6	2.3	1.8	2.7	0.4
N20-N23 Urolitiasi	0.7	0.0	0.2	-0.5	0.3	0.0	0.1	-0.2
N25-N29 Al.mal.rene uretere	1.5	0.5	0.1	-1.4	1.7	0.1	0.3	-1.4
N30-N39 Al.mal.sist.urinario	1.1	0.5	2.3	1.2	1.0	0.4	1.1	0.1
N40-N51 Mal.org.genit.maschili	1.2	0.4	0.0	-1.2	0.0	0.0	0.0	0.0
N80-N98 Mal.non infiamm.genit.femmini	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1
N00-N99 Tutte le cause	24.4	25.7	25.3	0.9	15.4	14.6	14.4	-1.0

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Mortalità per cause esterne (V00-Y99).

Decrementi importanti, e significativi, mostra la mortalità per cause esterne, in ambo i sessi (figura 21 e tabella 10)-

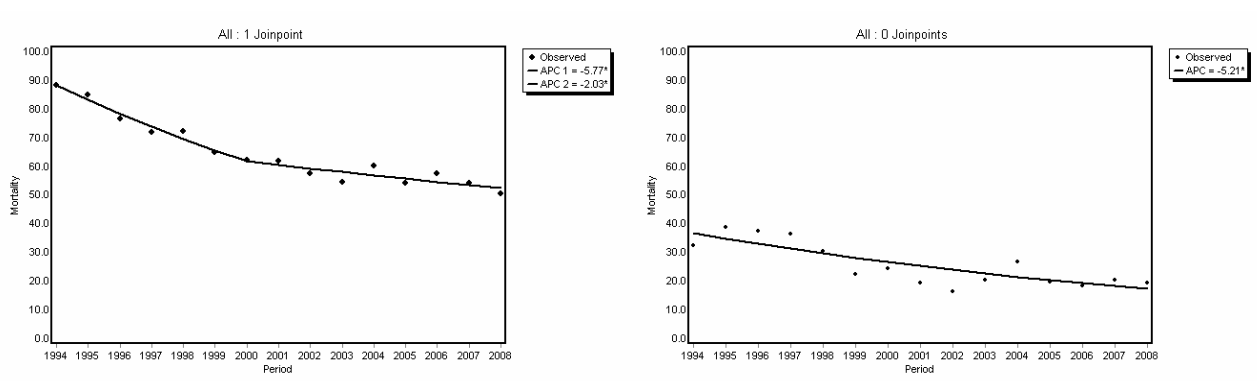


Figura 21. Trend temporali di mortalità per cause esterne (V00-Y99) maschi (a sinistra) e femmine (a destra), 1994-2008.

Tabella 10. Tassi standardizzati di mortalità per cause esterne (V00-Y99).

ICD10	MASCHI				FEMMINE			
	1994-98	1999-03	2004-08	var. 94-08	1994-98	1999-03	2004-08	var. 94-08.
V01-V09 Acc.a pedone inc.trasporto	2.8	2.1	1.6	-1.2	1.9	1.2	0.9	-1.0
V10-V19 Acc.a ciclista inc.trasporto	1.1	0.4	0.3	-0.8	0.2	0.0	0.0	-0.2
V20-V29 Acc.a motocicl.inc.trasporto	2.3	1.0	1.7	-0.6	0.4	0.0	0.0	-0.4
V40-V49 Acc.auto.inc.trasporto	7.0	11.6	4.9	-2.1	2.6	2.7	1.0	-1.6
V80-V89 Altri e n.s.acc.trasporto terrestre	10.4	8.6	8.0	-2.4	3.1	2.2	2.3	-0.8
V90-V94 Acc.trasporto in acqua	0.1	0.1	0.0	-0.1	0.0	0.0	0.0	0.0
V95-V97 Acc.trasporto.in aria o spazio	0.1	0.0	0.2	0.1	0.0	0.0	0.1	0.1
V98-V99 Altri e ns accid.trasporto	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
V00-V99 Acc. da mezzi di trasporto	23.8	23.9	16.7	-7.1	8.2	6.1	4.3	-3.9
W00-W19 Cadute	12.0	8.9	10.6	-1.4	7.0	4.6	4.5	-2.5
W20-W49 Colpo acc.caduta oggetto	3.1	2.9	3.1	0.0	0.3	0.3	0.2	-0.1
W65-W74 Annegam.sommer.accidentali	1.0	1.0	0.6	-0.4	0.3	0.3	0.1	-0.2
W75-W84 Soffoc.meccanico accidentale	0.5	0.1	0.2	-0.3	0.2	0.3	0.3	0.1
W85-W99 Acc.corrente elettr.radiatz.temp.press	0.5	0.1	0.1	-0.4	0.0	0.0	0.0	0.0
X00-X09 Acc.esposiz.fumo fuoco e fiamme	0.5	0.8	0.5	0.0	0.7	0.3	0.3	-0.4
X10-X19 Acc.calore sostanze calde	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
X20-X29 Acc.animali piante velenose	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
X30-X39 Acc.elementi naturali	0.4	0.1	0.1	-0.3	0.2	0.0	0.0	-0.2
X40-X41 Avv.acc.analg.antipir.	0.8	0.0	0.0	-0.8	0.3	0.0	0.0	-0.3
X42-X42 Avv.acc.narcot.allucinogeni	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
X43-X49 Avv.acc.al.ns sost.chimiche	1.8	0.5	0.2	-1.6	0.8	0.4	0.1	-0.7
X58-X59 Esposiz.accid.al.n.s.fattori	11.4	2.8	5.7	-5.7	11.8	3.5	6.8	-5.0
X60-X84 Suicidio	17.8	16.1	14.3	-3.5	3.1	3.9	2.6	-0.5
X85-Y09 Omicidio	0.8	0.5	0.3	-0.5	0.5	0.0	0.4	-0.1
Y10-Y34 Evento ns accid.intenzionale	2.1	1.5	0.6	-1.5	0.2	0.6	0.1	-0.1
Y35-Y36 Interv.leg.operaz.guerra	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Y40-Y59 Effetti avver.sost.terapeutiche	0.2	0.3	0.2	0.0	0.1	0.1	0.3	0.2
Y60-Y69 Acc.durante cure mediche	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0
Y83-Y84 Inter.chir.causa reaz.anomale	0.8	0.2	1.3	0.5	0.6	0.0	0.4	-0.2
Y85-Y89 Postumi cause esterne	0.5	0.3	0.1	-0.4	0.5	0.0	0.1	-0.4
V00-Y99 Tutte le cause	78.3	60.2	55.0	-23.3	35.0	20.6	20.7	-14.3

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tale decremento è determinato dalla diminuzione della mortalità dei tre principali raggruppamenti di cause: gli incidenti da mezzi di trasporto (V00-V99) che diminuiscono di circa il 30% nei maschi e del 48% nelle femmine, i suicidi (X60-X84) che diminuiscono rispettivamente nei due sessi del 20 e 16%, e le cadute (W00-W19) con un decremento del 12 e 64% rispettivamente (figure 22 e 23, tabella 10).

C'è da sottolineare che la mortalità per suicidi è soltanto di 2 punti inferiore quella per incidenti da mezzi di trasporto.

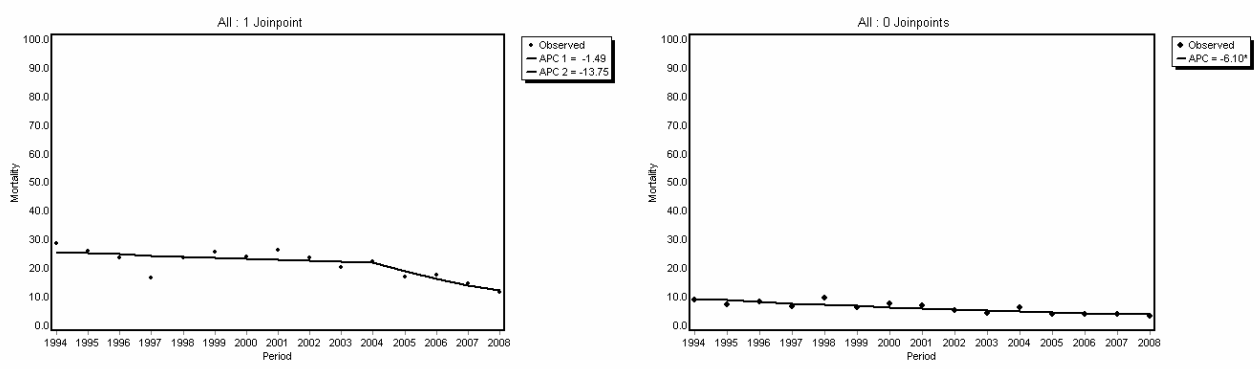


Figura 22. Trend temporali di mortalità per incidenti da mezzi di trasporto (V00-V99) maschi (a sinistra) e femmine (a destra), 1994-2008.

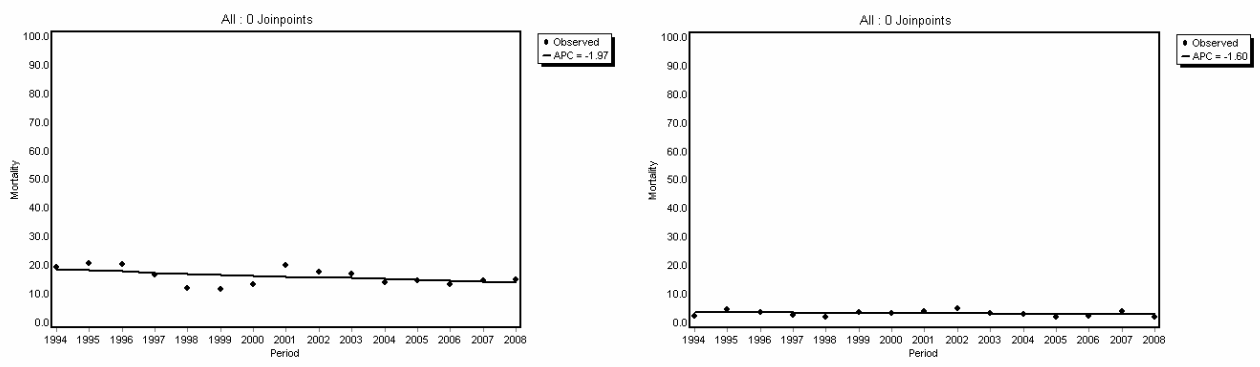


Figura 23. Trend temporali di mortalità per suicidi (X60-X84) maschi (a sinistra) e femmine (a destra), 1994-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Mortalità per tutte le cause (A00-Y99).

La tabella 11 riporta i tassi di mortalità standardizzati, relativi ai tre quinquenni considerati, e le variazioni assolute degli stessi dal primo all'ultimo periodo.

I trend della mortalità per tutte le cause, standardizzata per età, (figura 24) mostrano un continuo, significativo, decremento nel periodo 1994-2008. Tale diminuzione riguarda in maniera uguale sia i maschi che le femmine.

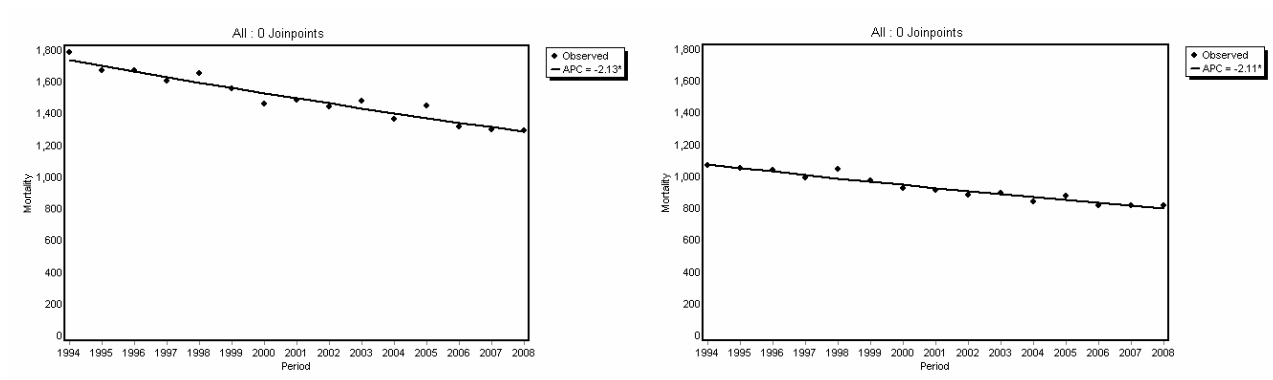


Figura 24. Trend temporali di mortalità per tutte le cause (A00-Y99) maschi (a sinistra) e femmine (a destra), 1994-2008.

La figura 25 riporta i valori dei tassi standardizzati di mortalità, per le cause considerate, confrontando il primo (1994-1998) con l'ultimo (2004-2008) periodo. Da questa figura risulta evidente la diminuzione, praticamente generalizzata dei tassi standardizzati di mortalità.

La distribuzione percentuale delle principali cause di morte, nel primo e nell'ultimo periodo, è riportata in figura 26. La mortalità per malattie del sistema cardio-circolatorio passa dal 40% dei maschi e dal 46.% delle femmine al 45% e al 52% rispettivamente. Diminuisce invece, in ambo i sessi, la quota relativa ai tumori maligni.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

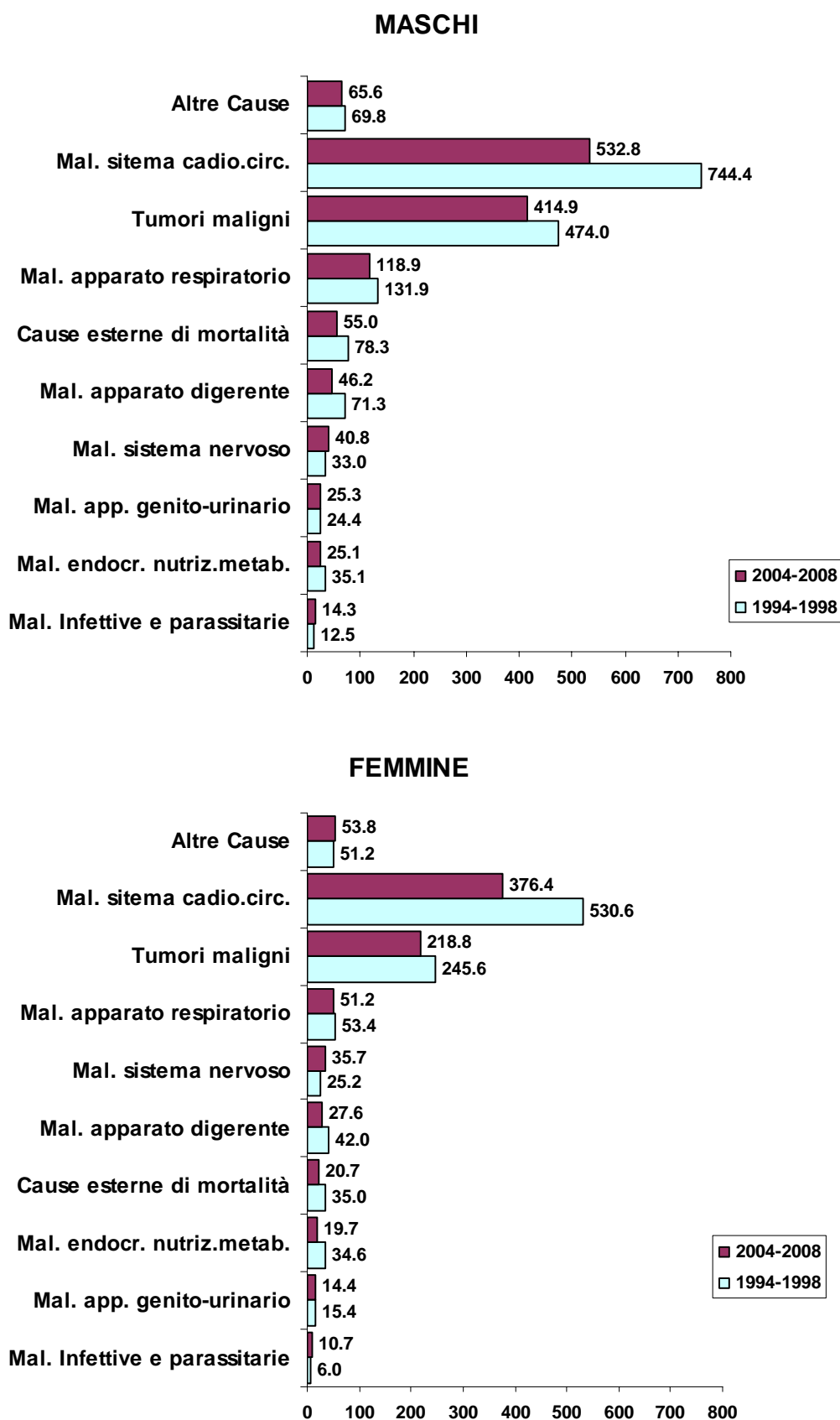


Figura 25. Tassi standardizzati di mortalità per 100.000 abitanti. Periodi 1994-1998 e 2004-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

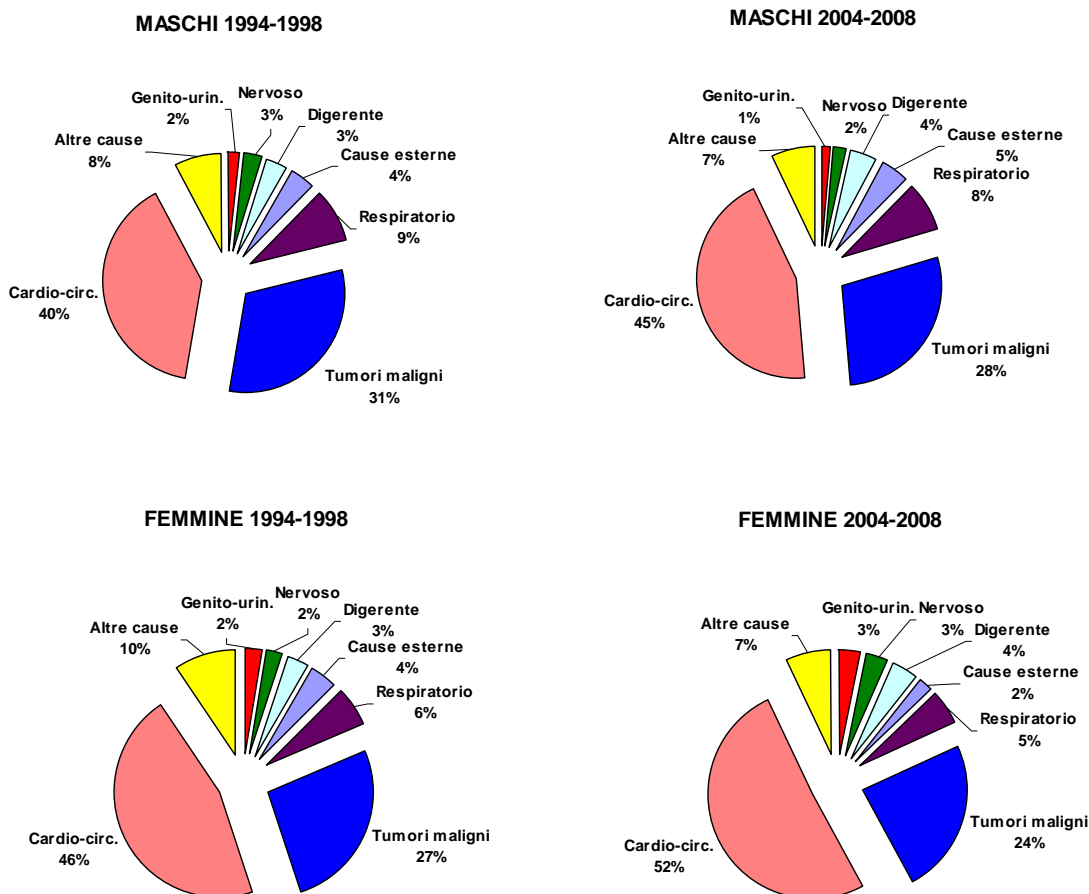


Figura 26. Distribuzione percentuale dei tassi standardizzati per 100.000 abitanti. Periodi 1994-1998 e 2004-2008.

Di seguito è riportata la tabella 12 che riassume i risultati della “joinpoint regression” per le sedi considerate. L’eventuale asterisco vicino al valore dell’APC indica che la variazione è statisticamente significativa ($p < 0.05$). Gli unici incrementi significati riguardano, come sopra descritto, solo le malattie endocrine, della nutrizione e del metabolismo, con il diabete, nei maschi e le malattie del sistema nervoso, con il morbo di Parkinson in ambo i sessi.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 11. Tassi standardizzati di mortalità per le principali cause di morte.

ICD10	MASCHI					FEMMINE				
	1994-1998	1999-2003	2004-2008	var. 94-08	var.% 94-08	1994-1998	1999-2003	2004-2008	var. 94-08	var.% 94-08
-A00-B99 MAL. INFETTIVE E PARASS.	12.5	12.1	14.3	1.8	14.4	6.0	8.2	10.7	4.7	78.3
--B15-B19 Epatiti virali	1.1	2.7	4.4	3.3	300.0	0.9	2.2	3.5	2.6	288.9
--B24 AIDS	5.3	1.3	0.6	-4.7	-88.7	1.2	0.4	0.4	-0.8	-66.7
-C00-D48 TUMORI	482.5	445.2	422.7	-59.8	-12.4	250.9	228.6	222.6	-28.3	-11.3
--C00-C97 Tumori maligni	474.6	441.8	414.9	-59.7	-12.6	245.6	226.3	218.8	-26.8	-10.9
---C01-C06;C10-C13 Cav. orale e faringe	5.6	5.1	4.7	-0.9	-16.1	2.0	1.5	1.0	-1.0	-50.0
---C15-C26 Apparato digerente	176.6	156.6	153.5	-23.1	-13.1	101.3	89.8	84.3	-17.0	-16.8
----C16 Stomaco	56.3	43.9	40.2	-16.1	-28.6	27.4	23.3	18.7	-8.7	-31.8
----C18-C21 Colon retto	54.9	53.2	52.0	-2.9	-5.3	32.8	31.8	28.9	-3.9	-11.9
---C30-C39 App. respiratorio	122.6	110.2	104.2	-18.4	-15.0	18.4	18.9	22.0	3.6	19.6
---C40-C49 Ossa connett. pelle	10.4	12.1	12.2	1.8	17.3	7.6	6.4	8.1	0.5	6.6
---C50 Mammella	0.4	0.7	0.4	0.0	0.0	40.2	36.8	34.4	-5.8	-14.4
---C51-C63 Apparato genitale	55.1	50.3	41.7	-13.4	-24.3	24.6	21.7	22.4	-2.2	-8.9
---C64-C68 Apparato urinario	35.8	37.7	33.9	-1.9	-5.3	9.0	8.8	7.9	-1.1	-12.2
---C69-C80 Altre sedi	24.6	29.1	24.6	0.0	0.0	17.6	18.9	16.0	-1.6	-9.1
---C81-C90 Linfomi e mielomi	19.2	17.6	17.8	-1.4	-7.3	13.1	12.3	12.0	-1.1	-8.4
---C91-C96 Leucemie	21.0	19.2	18.5	-2.5	-11.9	11.3	10.4	10.1	-1.2	-10.6
-D50-D89 MAL. SANGUE ORG. EMATO	7.8	6.0	6.7	-1.1	-14.1	5.6	4.1	4.0	-1.6	-28.6
-E00-E90 MAL. GHIANDOLE ENDOCR.	35.1	19.5	25.1	-10.0	-28.5	34.6	19.8	19.7	-14.9	-43.1
--E10-E14 Diabete	31.5	16.9	22.0	-9.5	-30.2	32.0	16.8	16.4	-15.6	-48.8
-F00-F99 DISTURBI PSICHICI	15.3	14.6	22.9	7.6	49.7	12.6	14.2	19.3	6.7	53.2
-G00-G99 MAL. SISTEMA NERVOSO	33.0	31.0	40.8	7.8	23.6	25.2	26.1	35.7	10.5	41.7
--G20 Morbo di Parkinson	10.1	7.9	12.4	2.3	22.8	6.0	4.9	6.5	0.5	8.3
-I00-I99 MAL. SIST. CIRCOLATORIO	744.4	663.4	532.8	-211.6	-28.4	530.6	473.5	376.4	-154.2	-29.1
--I05-I09 Cardiopatie reum. cro.	4.1	2.8	3.2	-0.9	-22.0	6.4	3.5	3.7	-2.7	-42.2
--I10-I15 Malattia ipertensiva	27.3	34.7	30.2	2.9	10.6	28.2	34.3	30.2	2.0	7.1
--I20-I25 Mal. ischemiche cuore	284.5	257.7	202.6	-81.9	-28.8	176.1	159.7	118.7	-57.4	-32.6
---I21 Infarto miocardio acuto	122.1	103.2	92.3	-29.8	-24.4	59.9	54.7	46.2	-13.7	-22.9
--I26-I28 Mal. circolo polmonare	13.2	11.5	8.2	-5.0	-37.9	6.8	5.8	5.4	-1.4	-20.6
--I30-I52 Altre mal. del cuore	119.9	106.5	90.0	-29.9	-24.9	91.7	79.4	69.0	-22.7	-24.8
--I60-I69 Dist. circol. encefalo	245.5	205.1	163.3	-82.2	-33.5	190.7	162.4	126.1	-64.6	-33.9
---I61 Emorragia intracerebrale	24.7	26.0	26.2	1.5	6.1	16.6	15.1	16.4	-0.2	-1.2
---I63-I65 Occlus. arter. cerebrali	128.6	104.3	76.9	-51.7	-40.2	103.3	87.6	62.3	-41.0	-39.7
--I70-I79 Mal. arterie arteriole	46.3	39.1	30.5	-15.8	-34.1	26.3	23.7	18.9	-7.4	-28.1
---I70 Arteriosclerosi	25.8	22.3	18.2	-7.6	-29.5	19.0	17.9	14.9	-4.1	-21.6

segue

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

segue tabella 11

ICD10	MASCHI					FEMMINE				
	1994-1998	1999-2003	2004-2008	var. 94-08	var.% 94-08	1994-1998	1999-2003	2004-2008	var. 94-08	var.% 94-08
-J00-J99 MAL. APP. RESPIRATORIO	131.9	122.7	118.9	-13.0	-9.9	53.4	51.0	51.2	-2.2	-4.1
--J10-J18 Polmonite e influenza	32.1	27.7	26.0	-6.1	-19.0	22.2	19.6	15.0	-7.2	-32.4
--J40-J47 Malattie cron. respirat.	79.9	74.0	66.4	-13.5	-16.9	21.7	20.4	20.5	-1.2	-5.5
--J60-J70 Mal. polm. agenti esterni	2.6	4.4	4.2	1.6	61.5	0.3	0.9	1.4	1.1	366.7
-K00-K93 MAL. APP. DIGERENTE	71.3	61.0	46.2	-25.1	-35.2	42.0	34.7	27.6	-14.4	-34.3
--K20-K31 Mal. esof. stomaco duodeno	8.1	5.1	3.0	-5.1	-63.0	3.8	2.8	1.9	-1.9	-50.0
--K55-K63 Altre mal. intestinali	10.2	13.1	11.6	1.4	13.7	7.3	9.2	9.3	2.0	27.4
--K70-K93 Altre mal. app. digerente	47.5	39.1	28.2	-19.3	-40.6	27.4	19.5	14.0	-13.4	-48.9
---K70-K77 Mal. del fegato	34.2	26.9	16.6	-17.6	-51.5	18.8	12.5	7.1	-11.7	-62.2
----K74 Fibrosi e cirrosi epatica	24.2	17.3	10.4	-13.8	-57.0	13.7	7.8	4.9	-8.8	-64.2
-M00-M99 MAL. SIST. OSTEOMUSC.	3.3	1.2	3.1	-0.2	-6.1	5.4	3.0	4.3	-1.1	-20.4
-N00-N99 MAL. APP. GENITOURINARIO	24.4	25.7	25.3	0.9	3.7	15.4	14.6	14.4	-1.0	-6.5
--N00-N29 Nefrite e al. mal. renali	22.1	24.9	23.0	0.9	4.1	14.2	14.1	13.2	-1.0	-7.0
--N40-N41 Mal. org. genitali M	1.2	0.4	0.0	-1.2	-100.0	0.0	0.0	0.0	0.0	0.0
--N70-N98 Mal. org. genitali F	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	-0.2	-100.0
-O00-O99 COMPLIC. GRAVID. PARTO	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	-100.0
-P00-P96 CONDIZ. MORB. PERINATALI	2.9	2.6	1.0	-1.9	-65.5	1.6	2.0	1.3	-0.3	-18.8
-Q00-Q99 MALFORMAZIONI CONGENITE	3.2	2.1	1.3	-1.9	-59.4	2.1	1.8	2.0	-0.1	-4.8
-R00-R99 CONDIZ. MORB. MAL DEFINITE	28.7	17.2	22.7	-6.0	-20.9	18.5	14.5	19.1	0.6	3.2
-V01-Y99 TRAUMATISMI E AVVELEN.	78.3	60.2	55.0	-23.3	-29.8	35.0	20.6	20.7	-14.3	-40.9
--V01-V99 Acc. mezzi trasporto	23.8	24.0	16.7	-7.1	-29.8	8.3	6.2	4.3	-4.0	-48.2
--W00-W19 Cadute	12.0	8.9	10.6	-1.4	-11.7	7.0	4.6	4.5	-2.5	-35.7
--X40-X49 Avvel. acc. sost. nocive	2.7	0.6	0.2	-2.5	-92.6	1.2	0.4	0.1	-1.1	-91.7
--X60-X84 Suicidi	17.8	16.1	14.3	-3.5	-19.7	3.1	3.9	2.6	-0.5	-16.1
--X85-Y09 Omicidi	0.8	0.5	0.3	-0.5	-62.5	0.5	0.6	0.4	-0.1	-20.0
A00-Y99 TUTTE LE CAUSE	1674.7	1484.7	1338.9	-335.8	-20.1	1039.0	916.8	829.0	-210.0	-20.2

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 12. Variazione media annuale (APC) dei tassi standardizzati di mortalità, per le cause di morte analizzate, per il periodo 1994-2008.

Causa di morte		Sesso	APC	
Malattie infettive e parassitarie		M	2.31	
		F	6.31	*
Tumori maligni		M	-1.27	*
		F	-1.05	*
- Stomaco		M	-3.39	*
		F	-3.94	*
- Colon-retto		M	-0.59	*
		F	-1.23	*
- Polmone		M	-1.29	*
		F	-2.17	*
- Mammella		F	-1.44	*
- Prostata		M	-2.68	*
Malattie endocrine, nutriz. e metabol.	APC1 1994-2001	M	-12.96	*
	APC2 2002-2008		8.44	*
	APC1 1994-1996	F	21.18	
	APC2 1997-2000		-19.69	
- Diabete	APC3 2000-2008		2.11	
	APC1 1994-2003	M	-10.54	*
	APC2 2004-2008		15.67	*
	APC1 1994-1996	F	18.12	
	APC2 1997-2002		-16.18	*
	APC3 2003-2008		6.35	
Malattie del sistema nervoso	APC1 1994-2004	M	-0.31	
	APC2 2005-2008		13.09	*
	APC1 1994-2006	F	2.12	
	APC2 2007-2008		28.30	
- Morbo di Parkinson	APC1 1994-2003	M	-3.32	*
	APC2 2004-2008		14.46	*
	APC1 1994-2005	F	-3.19	
	APC2 2006-2008		31.79	*
- Morbo di Alzheimer		M	8.21	*
		F	11.81	*
Malattie del sistema cardio-circolatorio		M	-3.26	*
	APC1 1994-2001	F	-1.97	*
- Malattie ischemiche del cuore	APC2 2002-2008		-4.71	*
		M	-3.34	*
	APC1 1994-1999	F	0.96	
	APC2 2000-2008		-5.77	*
- Malattie circolatorie dell'encefalo		M	-3.90	*
		F	-3.93	*
Malattie dell'apparato respiratorio		M	-0.90	
		F	-0.39	
-BPCO		M	-1.93	*
		F	-0.81	
Malattie dell'apparato digerente		M	-4.12	*
		F	-4.02	*
- Fibrosi e cirrosi epatica		M	-7.65	*
		F	-9.72	*
Malattie dell'apparato genito-urinario		M	0.12	
		F	-0.42	
Cause esterne	APC1 1994-2000	M	-5.77	*
	APC2 2001-2008		-2.03	*
- Incidenti da mezzi di trasporto		F	-5.21	*
	APC1 1994-2004	M	-1.49	
	APC2 2005-2008		-13.75	
		F	-6.10	*
- Suicidi		M	-1.97	
		F	-1.60	
Tutte le cause		M	-2.13	*
		F	-2.11	*

* variazione statisticamente significativa

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Gli Anni di Vita Potenziale Persi (YPLL).

L'analisi della tabella 13 permette di constatare come i tassi standardizzati di anni di vita potenziale persi (deceduti a una età inferiore ai 75 anni), dal quinquennio 1994-1998 al 2004-2008, siano diminuiti del 32% nei maschi e del 29% delle femmine.

Se si eccettuano alcune singole cause di morte, quali le epatiti virali (B15-B19) e la polmonite e influenza (J10-J18) in ambo i sessi, per tutte le altre si osserva una riduzione degli YPLL:

Nei maschi superano il 50% di riduzione i tassi di YPLL per:

- malattie infettive e parassitarie (A00-B99: -60.5%), con l'AIDS (B24: -92.3%),
- malattie del circolo polmonare (I26-I28: -68.5%),
- arteriosclerosi (I70: -61.3%),
- malattie dell'esofago, stomaco e duodeno (K20-K31: -64,1%),
- malattie del fegato (K70-K77: -52.3%),
- fibrosi e cirrosi epatica (-60.7%),
- condizioni morbose perinatali (P00-P96: -60%),
- malformazioni congenite (Q00-Q99: -50.9%),
- condizioni morbose mal definite (R00-R99: -60.9%),
- avvelenamenti accidentali da sostanze nocive (-90.8%).

Nelle femmine i tassi di YPLL per:

- AIDS (B24: -66.5%),
- malattie delle ghiandole endocrine (E00-E90: -54.0%) con il diabete (E10-E14: -61.8%),
- cardiopatie reumatiche croniche (I05-I09: -61.3%),
- disturbi circolatori dell'encefalo (I60-I69: -51.7%),
- occlusione delle arterie cerebrali (I63-I65: -33.7%),
- malattie dell'esofago, stomaco e duodeno (K20-K32: -56,1%),
- altre malattie dell'apparato digerente (K70-K93: -54.5%),
- malattie del fegato (K70-K77: -63.3%) con fibrosi e cirrosi epatica (K74: -73.1%),
- malattie degli organi genitali femminili (N70-N98: -100.0%),
- complicazioni della gravidanza e del parto (O00-O99: -52.5%),
- condizioni morbose mal definite (R00-R99: -58.6%)
- incidenti da mezzi di trasporto (V01-V99: -61.3%)
- cadute (W00-W19: -69.7%)
- avvelenamenti accidentali da sostanze nocive (X40-X49: -99.6%).

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

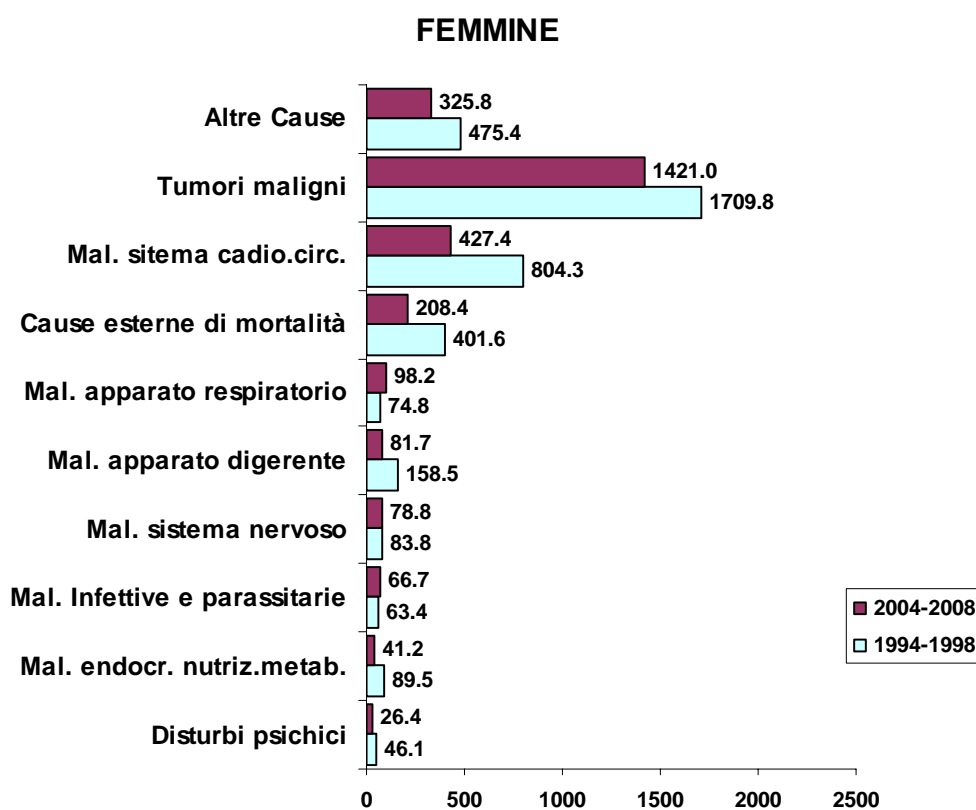
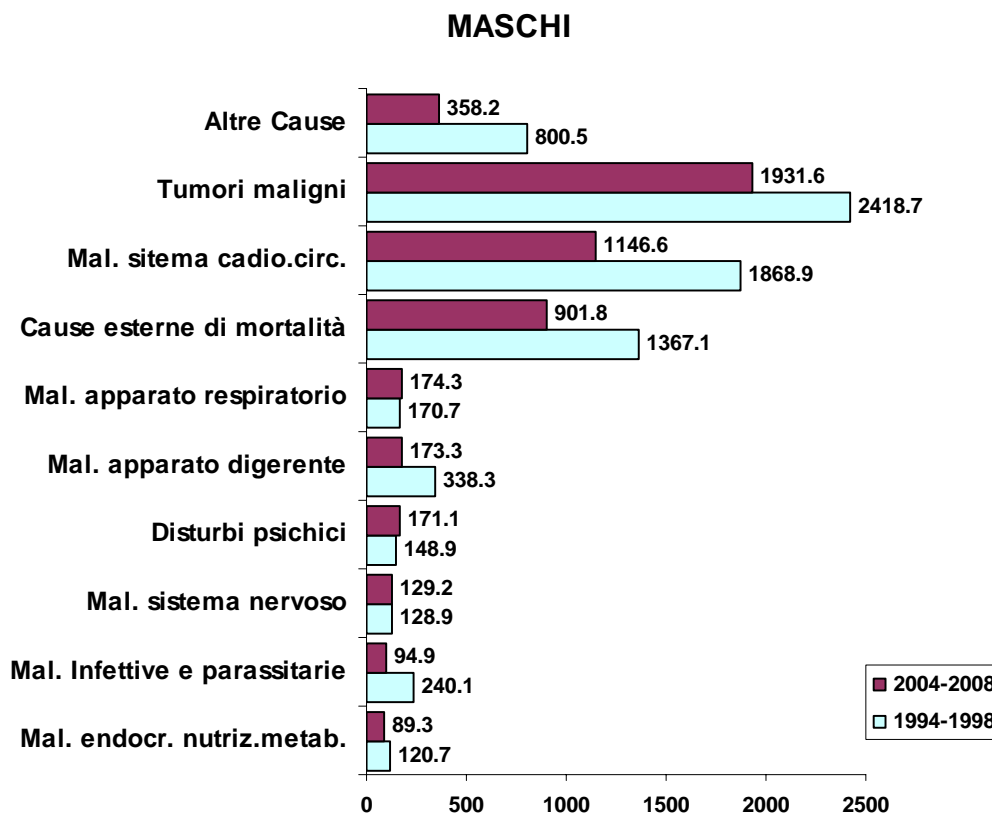


Figura 27. Tassi standardizzati di Anni di Vita Potenziale Persi (YPLL) per 100.000 abitanti. Periodi 1994-1998 e 2004-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

La figura 27 (a sinistra) riporta i valori dei tassi standardizzati di YPLL, per le cause considerate, confrontando il primo (1994-1998) con l'ultimo (2004-2008) periodo. Da questa figura risulta evidente la diminuzione, praticamente generalizzata dei tassi di Anni di Vita potenziale Persi.

La distribuzione percentuale degli YPLL delle principali cause di morte, nel primo e nell'ultimo periodo, è riportata in figura 28. Differentemente dai tassi di mortalità, il primo posto della graduatoria degli YPLL è occupato dai tumori maligni. Le percentuali di YPLL di questa sede tuttavia diminuiscono dal 38% dei maschi e dal 51.0% delle femmine al 32% e al 43% rispettivamente. In aumento percentuale invece gli YPLL relativi alla mortalità per malattie cardio-circolatorie.

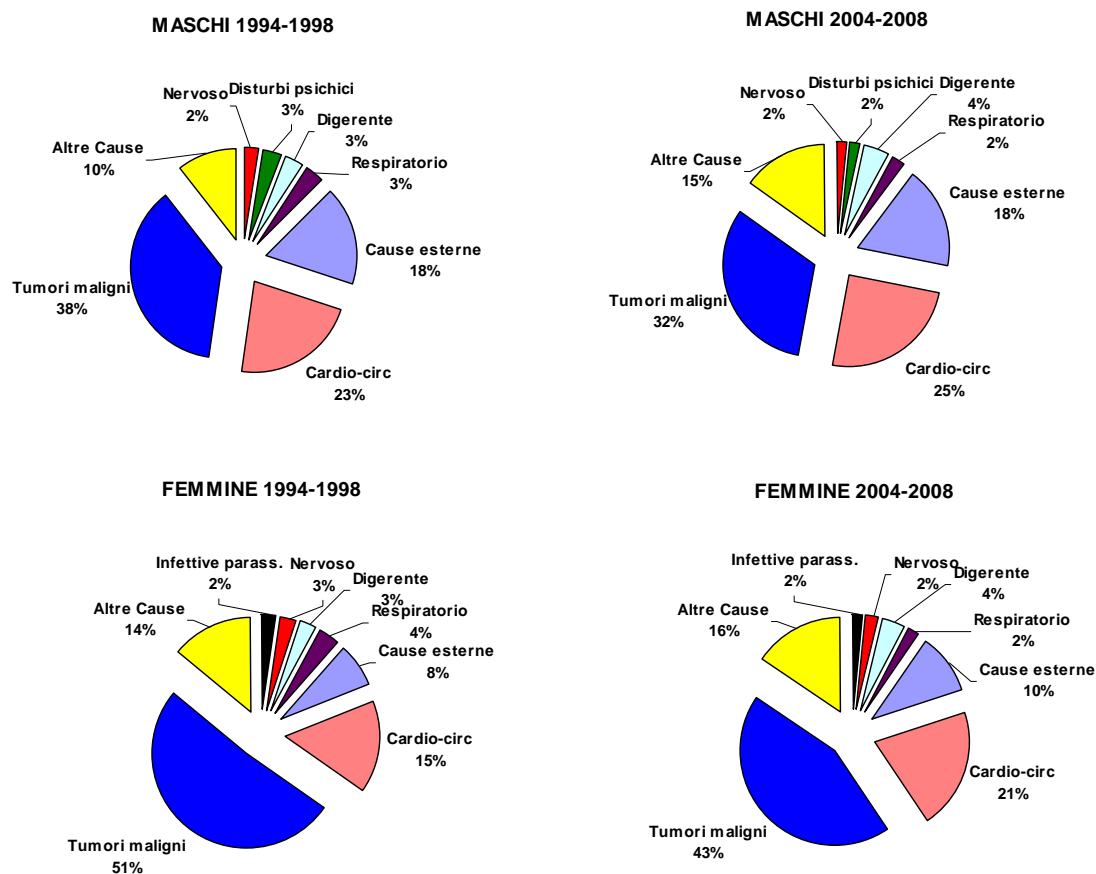


Figura 28. Distribuzione percentuale dei tassi di Anni di Vita Potenziale Persi (YPLL) standardizzati per 100.000 abitanti. Periodi 1994-1998 e 2004-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 13. Tassi standardizzati di Anni di Vita Potenziale Persi (YPLL <75 anni) per le principali cause di morte.

ICD10	MASCHI			var.	var. %	FEMMINE			var.	var. %
	1994-1998	1999-2003	2004-2008	94-08	94-08	1994-1998	1999-2003	2004-2008	94-08	94-08
-A00-B99 MAL. INFETTIVE E PARASS.	240.1	81.3	94.9	-145.2	-60.5	63.4	45.5	66.7	3.3	5.2
--B15-B19 Epatiti virali	8.0	13.5	35.7	27.7	346.3	4.6	11.1	9.2	4.6	100.0
--B24 AIDS	209.4	42.9	16.1	-193.3	-92.3	49.9	16.5	16.7	-33.2	-66.5
-C00-D48 TUMORI	2456.6	2119.5	1941.0	-515.6	-21.0	1751.1	1536.5	1426.3	-324.8	-18.5
--C00-C97 Tumori maligni	2418.7	2110.9	1931.6	-487.1	-20.1	1709.8	1528.2	1421.0	-288.8	-16.9
---C01-C06;C10-C13 Cav. orale e faringe	52.3	41.0	43.1	-9.2	-17.6	16.9	13.7	11.4	-5.5	-32.5
---C15-C26 Apparato digerente	816.7	705.9	664.9	-151.8	-18.6	486.1	398.2	398.5	-87.6	-18.0
----C16 Stomaco	263.5	196.0	157.4	-106.1	-40.3	134.8	106.3	80.8	-54.0	-40.1
----C18-C21 Colon retto	233.8	226.0	220.8	-13.0	-5.6	172.2	148.2	157.8	-14.4	-8.4
---C30-C39 App. respiratorio	740.8	602.4	544.4	-196.4	-26.5	133.5	146.4	172.4	38.9	29.1
---C40-C49 Ossa connett. pelle	86.0	94.9	106.1	20.1	23.4	56.5	53.1	77.3	20.8	36.8
---C50 Mammella	1.8	2.5	0.9	-0.9	-50.0	424.4	366.5	340.5	-83.9	-19.8
---C51-C63 Apparato genitale	71.9	67.9	53.3	-18.6	-25.9	197.5	179.7	155.8	-41.7	-21.1
---C64-C68 Apparato urinario	151.9	131.1	108.3	-43.6	-28.7	36.9	46.9	31.5	-5.4	-14.6
---C69-C80 Altre sedi	217.6	224.8	177.5	-40.1	-18.4	161.1	165.3	99.0	-62.1	-38.5
---C81-C90 Linfomi e mielomi	108.0	126.7	108.7	0.7	0.6	89.9	73.3	77.7	-12.2	-13.6
---C91-C96 Leucemie	145.5	95.7	99.4	-46.1	-31.7	100.4	81.8	52.5	-47.9	-47.7
-D50-D89 MAL. SANGUE ORG. EMATO	30.0	28.8	22.8	-7.2	-24.0	37.5	11.5	20.3	-17.2	-45.9
-E00-E90 MAL. GHIANDOLE ENDOCR.	120.7	77.2	89.3	-31.4	-26.0	89.5	43.4	41.2	-48.3	-54.0
--E10-E14 Diabete	75.8	48.9	60.0	-15.8	-20.8	54.2	18.8	20.7	-33.5	-61.8
-F00-F99 DISTURBI PSICHICI	148.9	142.8	171.1	22.2	14.9	46.1	27.6	26.4	-19.7	-42.7
-G00-G99 MAL. SISTEMA NERVOSO	128.2	100.0	129.2	1.0	0.8	83.8	86.9	78.8	-5.0	-6.0
--G20 Morbo di Parkinson	11.2	2.9	6.2	-5.0	-44.6	4.5	4.2	2.3	-2.2	-48.9
-I00-I99 MAL. SIST. CIRCOLATORIO	1868.9	1637.4	1146.6	-722.3	-38.6	804.3	640.3	427.4	-376.9	-46.9
--I05-I09 Cardiopatie reum. cro.	20.3	9.4	11.8	-8.5	-41.9	24.8	11.8	9.6	-15.2	-61.3
--I10-I15 Malattia ipertensiva	77.7	82.6	75.4	-2.3	-3.0	45.4	37.1	28.2	-17.2	-37.9
--I20-I25 Mal. ischemiche cuore	928.3	798.0	486.4	-441.9	-47.6	268.1	224.3	137.9	-130.2	-48.6
---I21 Infarto miocardio acuto	620.2	531.2	359.2	-261.0	-42.1	167.0	143.2	103.8	-63.2	-37.8
--I26-I28 Mal. circolo polmonare	26.0	20.8	8.2	-17.8	-68.5	19.8	18.0	14.3	-5.5	-27.8
--I30-I52 Altre mal. del cuore	380.1	308.9	287.0	-93.1	-24.5	161.1	155.9	90.7	-70.4	-43.7
--I60-I69 Dist. circol. encefalo	348.4	314.1	206.6	-141.8	-40.7	243.0	164.9	117.4	-125.6	-51.7
---I61 Emorragia intracerebrale	107.6	108.6	83.0	-24.6	-22.9	80.9	50.3	50.0	-30.9	-38.2
---I63-I65 Occlus. arter. cerebrali	123.3	105.3	66.0	-57.3	-46.5	78.0	51.8	26.0	-52.0	-66.7
--I70-I79 Mal. arterie arteriole	76.0	77.4	50.9	-25.1	-33.0	23.4	20.1	14.9	-8.5	-36.3
---I70 Arteriosclerosi	16.8	12.7	6.5	-10.3	-61.3	4.9	4.8	6.5	1.6	32.7

segue

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

segue tabella 13

ICD10	MASCHI			var.	var. %	FEMMINE			var.	var. %
	1994-1998	1999-2003	2004-2008	94-08	94-08	1994-1998	1999-2003	2004-2008	94-08	94-08
-J00-J99 MAL. APP. RESPIRATORIO	170.7	209.5	174.3	3.6	2.1	74.8	75.1	98.2	23.4	31.3
--J10-J18 Polmonite e influenza	32.6	45.2	38.8	6.2	19.0	17.7	14.3	31.0	13.3	75.1
--J40-J47 Malattie cron. respirat.	87.2	95.2	49.0	-38.2	-43.8	26.6	35.5	22.7	-3.9	-14.7
--J60-J70 Mal. polm. agenti esterni	6.1	4.9	1.4	-4.7	-77.0	0.5	1.1	0.8	0.3	60.0
-K00-K93 MAL. APP. DIGERENTE	338.3	280.5	178.3	-160.0	-47.3	158.5	119.2	81.7	-76.8	-48.5
--K20-K31 Mal. esof. stomaco duodeno	18.1	12.3	6.5	-11.6	-64.1	5.7	4.2	2.5	-3.2	-56.1
--K55-K63 Altre mal. intestinali	25.8	27.2	16.5	-9.3	-36.0	10.8	12.3	11.9	1.1	10.2
--K70-K93 Altre mal. app. digerente	283.1	230.5	143.8	-139.3	-49.2	131.0	90.0	59.6	-71.4	-54.5
---K70-K77 Mal. del fegato	256.6	206.2	122.4	-134.2	-52.3	114.8	72.1	42.1	-72.7	-63.3
---K74 Fibrosi e cirrosi epatica	172.1	119.5	67.6	-104.5	-60.7	81.6	39.6	21.3	-60.3	-73.9
-M00-M99 MAL. SIST. OSTEOMUSC.	10.4	12.7	8.6	-1.8	-17.3	13.7	20.4	16.9	3.2	23.4
-N00-N99 MAL. APP. GENITOURINARIO	52.6	36.1	32.7	-19.9	-37.8	32.4	16.8	18.9	-13.5	-41.7
--N00-N29 Nefrite e al. mal. renali	51.2	35.6	31.8	-19.4	-37.9	31.6	16.8	18.5	-13.1	-41.5
--N70-N98 Mal. org. genitali F	0.0	0.4	0.0	0.0	0.0	0.7	0.0	0.0	-0.7	-100.0
-O00-O99 COMPLIC. GRAVID. PARTO	0.0	0.0	0.0	0.0	0.0	4.0	2.0	1.9	-2.1	-52.5
-P00-P96 CONDIZ. MORB. PERINATALI	237.1	217.8	94.9	-142.2	-60.0	123.3	155.5	114.1	-9.2	-7.5
-Q00-Q99 MALFORMAZIONI CONGENITE	150.7	85.9	74.1	-76.6	-50.8	108.9	96.4	100.8	-8.1	-7.4
-R00-R99 CONDIZ. MORB. MAL DEFINITE	282.6	149.3	110.5	-172.1	-60.9	114.4	56.0	47.4	-67.0	-58.6
-V01-Y99 TRAUMATISMI E AVVELEN.	1367.1	1204.2	901.8	-465.3	-34.0	401.6	339.6	208.4	-193.2	-48.1
--V01-V99 Acc. mezzi trasporto	660.0	700.9	464.8	-195.2	-29.6	245.4	178.3	95.0	-150.4	-61.3
--W00-W19 Cadute	62.3	51.2	65.3	3.0	4.8	16.5	14.7	5.0	-11.5	-69.7
--X40-X49 Avvel. acc. sost. nocive	69.4	10.4	6.4	-63.0	-90.8	23.4	9.1	0.1	-23.3	-99.6
--X60-X84 Suicidi	303.6	280.4	246.7	-56.9	-18.7	55.5	92.0	61.7	6.2	11.2
--X85-Y09 Omicidi	19.5	15.6	13.7	-5.8	-29.7	10.9	15.2	10.9	0.0	0.0
A00-Y99 TUTTE LE CAUSE	7602.8	6383.0	5170.3	-2432.5	-32.0	3907.2	3272.8	2775.6	-1131.6	-29.0

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Considerazioni finali.

Come si può notare, per alcune cause di morte si evidenziano andamenti opposti se si confrontano i trend dei tassi di mortalità e quelli degli YPLL. Tale andamento può essere spiegato dal fatto che, nell'ultimo periodo, una percentuale maggiore di morti appartiene alle classi di età oltre 75 anni: in tal modo pure aumentando la mortalità, anche standardizzata, diminuiscono gli anni di vita potenziale persi. Così è per il morbo di Parkinson che presenta un incremento della mortalità standardizzata e una diminuzione degli YPLL; così come la mortalità per malattie del sistema nervoso nelle femmine.

D'altra parte, l'età media di morte, dal 1994 al 2008 è aumentata di circa 4,5 anni sia nei maschi che nelle femmine:

Tabella 14. Età media di morte della popolazione Umbra.

	1994	2008
Maschi	73.0	77.5
Femmine	78.3	82.7

mantenendo tuttavia la stessa differenza, di oltre 5 anni, tra i due sessi.

La figura 29, che mostra l'andamento della mortalità per classi di età, rende visibile lo spostamento della stessa nelle classi di età più anziane.

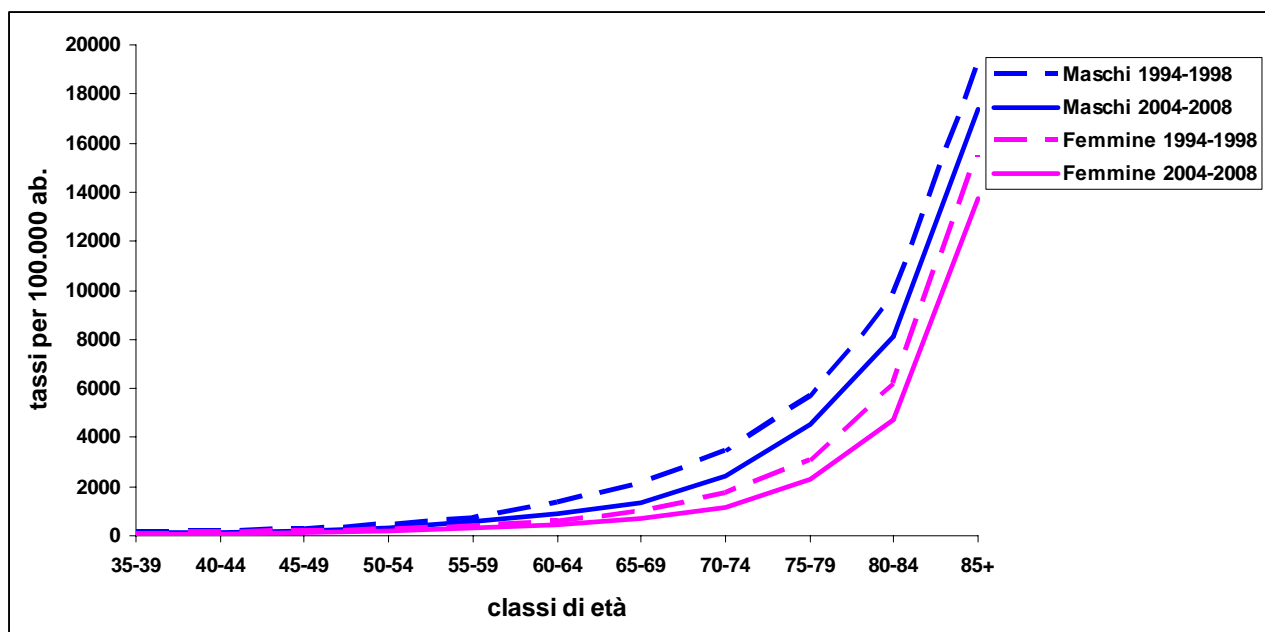


Figura 29. Andamento della mortalità per classi di età. Periodi 1994-1998 e 2004-2008.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Da sottolineare, inoltre, la riduzione, nei maschi, della mortalità per condizioni morbose non definite, mentre nelle femmine si assiste a un lieve aumento. I tassi di YPLL, per queste cause non definite, diminuiscono di circa il 60%, in ambo i sessi: ciò sta a indicare una migliore accuratezza, da parte dei medici necroscopi, nella definizione delle cause di morte, specialmente per quanto riguarda i deceduti meno anziani.

Un altro settore, la cui diminuzione ha comportato un notevole decremento degli YPLL, è quello riguardante le cause non naturali. Queste cause di morte (incidenti da mezzi di trasporto, cadute, avvelenamenti accidentali ecc.) riguardano fasce di popolazione giovane e sono considerate tra le più importate cause di morte evitabili.

Anche i suicidi, che nella regione dell'Umbria da tempo costituiscono un problema non solo sanitario, hanno subito un notevole decremento dei tassi, ma nelle femmine si assiste a un leggero aumento degli YPLL.

In conclusione, la diminuzione quasi generalizzata della mortalità e il suo spostamento verso le classi di età più anziane, con conseguente decremento degli anni di vita potenziale persi, possono far dare un giudizio positivo sull'efficacia degli interventi del Servizio Sanitario Regionale, sia dal punto di vista della prevenzione che della terapia e della riabilitazione.

Indagini ad hoc potrebbero contribuire a spiegare se l'aumento della mortalità per alcune cause sia dovuto all'aumento dei fattori di rischio o a fattori indipendenti da essi.

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Le tabelle seguenti riportano i dati analitici di mortalità per le diverse cause, nella regione dell'Umbria, per il periodo 2004-2008.

Il numero dei decessi è quello complessivo dei cinque anni.

Tabella 15. Numero totale di decessi nella regione dell'Umbria. Maschi, 2004-2008.

ICD10	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTALE
A00-Y99 TUTTE LE CAUSE	57	8	13	31	72	78	99	165	219	301	478	802	1142	1669	2637	4103	5270	6853	23997
-A00-B99 MAL. INFETTIVE E PARASSITARIE	1	1	0	0	1	0	1	4	11	8	14	12	6	23	31	50	44	57	264
--B15-B19 Epatiti virali	0	0	0	0	0	0	0	1	5	6	6	4	1	9	13	16	11	11	83
--B24 AIDS	0	0	0	0	0	0	0	1	3	2	3	2	1	0	1	0	0	0	13
-C00-D48 TUMORI	1	4	5	2	9	7	12	28	58	120	224	389	591	863	1213	1545	1614	1198	7883
--C00-C97 Tumori maligni	1	4	5	2	9	7	12	28	58	120	223	389	586	855	1199	1520	1578	1151	7747
---C01-C06;C10-C13 Cav. orale e faringe	0	0	0	0	0	0	0	0	4	5	7	6	14	13	8	16	11	7	91
---C15-C26 Apparato digerente	0	0	0	0	1	1	2	12	14	37	86	138	214	314	483	560	552	438	2852
----C16 Stomaco	0	0	0	0	0	1	0	1	4	9	24	24	47	89	131	146	135	128	739
----C18-C21 Colon retto	0	0	0	0	1	0	0	8	3	13	17	48	82	105	149	190	185	161	962
---C30-C39 App. respiratorio	0	0	0	0	0	1	3	3	11	34	67	135	170	260	348	426	363	164	1985
---C40-C49 Ossa connett. pelle	1	0	2	1	2	0	4	2	3	11	13	12	19	27	31	33	37	33	231
---C50 Mammella	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4	1	7
---C51-C63 Apparato genitale	0	0	0	0	0	0	0	0	0	0	5	10	21	37	76	139	217	234	739
---C64-C68 Apparato urinario	0	0	0	0	0	0	0	1	2	3	11	23	45	63	79	138	144	115	624
---C69-C80 Altre sedi	0	2	0	1	2	0	2	3	11	19	19	25	48	50	70	75	78	61	466
---C81-C90 Linfomi e mielomi	0	1	0	0	4	2	0	2	8	6	9	17	26	35	46	58	72	50	336
---C91-C96 Leucemie	0	1	3	0	0	2	1	5	4	4	3	16	20	47	51	68	84	43	352
-D50-D89 MAL. SANGUE ORG. EMATO	1	0	0	0	1	1	0	0	2	1	2	1	3	5	13	17	31	41	119
-E00-E90 MAL. GHIANDOLE ENDOCRINE	1	0	0	0	2	1	0	2	3	5	8	17	29	22	66	79	99	117	451
--E10-E14 Diabete	0	0	0	0	0	0	0	1	1	4	6	12	26	18	64	65	91	106	394
-F00-F99 DISTURBI PSICHICI	0	0	0	0	5	14	15	14	18	6	6	4	8	10	19	43	60	174	396
-G00-G99 MAL. SISTEMA NERVOSO	6	0	3	1	1	4	1	2	7	5	6	13	20	39	63	138	211	213	733
--G20 Morbo di Parkinson	0	0	0	0	0	0	0	0	0	0	0	0	1	10	12	57	64	73	217
-I00-I99 MAL. SIST. CIRCOLATORIO	2	0	1	1	3	6	12	33	41	66	122	235	315	465	803	1498	2171	3493	9267
--I05-I09 Cardiopatie reum. cro.	0	0	0	0	0	0	1	0	1	0	0	4	1	6	9	10	14	13	59
--I10-I15 Malattia ipertensiva	0	0	0	0	0	0	1	1	3	3	7	22	24	32	39	75	127	195	529
--I20-I25 Mal. ischemiche cuore	0	0	0	0	0	0	0	9	19	24	59	118	150	209	335	565	830	1240	3558
---I21 Infarto miocardio acuto	0	0	0	0	0	0	0	6	17	21	46	90	112	133	198	299	370	392	1684
--I26-I28 Mal. circolo polmonare	0	0	0	0	0	0	0	0	0	1	3	2	1	20	35	40	42	144	
--I30-I52 Altre mal. del cuore	2	0	1	1	3	5	9	17	10	21	27	41	53	83	115	241	350	592	1571
--I60-I69 Dist. circol. encefalo	0	0	0	0	0	0	0	3	4	13	26	37	68	95	220	479	686	1166	2797
---I61 Emorragia intracerebrale	0	0	0	0	0	0	0	2	3	6	12	17	21	32	71	118	96	98	476
---I63-I65 Occlus. arter. cerebrali	0	0	0	0	0	0	0	1	0	4	4	9	29	39	84	214	329	590	1303
--I70-I79 Mal. arterie arteriole	0	0	0	0	0	0	1	2	2	2	1	9	14	33	53	81	111	214	523
---I70 Arteriosclerosi	0	0	0	0	0	0	0	0	0	0	0	0	3	6	17	41	63	167	297
-J00-J99 MAL. APP. RESPIRATORIO	2	0	1	0	2	1	5	6	11	5	9	20	36	80	173	350	575	791	2067
--J10-J18 Polmonite e influenza	1	0	0	0	0	0	0	1	1	3	2	7	9	19	37	52	127	191	450
--J40-J47 Malattie cron. respirat.	0	0	0	0	1	0	0	0	2	0	3	7	10	37	90	206	334	456	1146
--J60-J70 Mal. polm. agenti esterni	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	12	25	28	74
-K00-K93 MAL. APP. DIGERENTE	0	0	0	0	0	1	0	4	9	19	23	32	51	56	103	144	168	221	831
--K20-K31 Mal. esof. stomaco duodeno	0	0	0	0	0	0	0	1	0	0	0	2	2	2	5	8	18	16	54
--K55-K63 Altre mal. intestinali	0	0	0	0	0	0	0	0	0	1	4	3	4	6	20	33	44	83	198
--K70-K93 Altre mal. app. digerente	0	0	0	0	0	1	0	1	9	17	17	27	42	46	70	91	96	103	520
---K70-K77 Mal. del fegato	0	0	0	0	0	1	0	0	6	16	14	25	38	40	51	55	47	26	319
----K74 Fibrosi e cirrosi epatica	0	0	0	0	0	0	0	0	2	10	8	12	22	27	33	37	33	15	199
-M00-M99 MAL. SIST. OSTEOMUSCOLARE	0	0	0	0	0	0	0	1	0	1	1	0	4	1	8	11	9	18	54
-N00-N99 MAL. APP. GENITOURINARIO	1	0	0	0	0	0	0	0	1	3	2	4	6	22	33	76	104	181	433
--N00-N29 Nefrite e al. mal. renali	1	0	0	0	0	0	0	0	1	3	2	4	6	20	32	69	97	160	395
-P00-P96 CONDIZ. MORB. PERINATALI	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
-Q00-Q99 MALFORMAZIONI CONGENITE	13	1	0	0	2	0	0	1	2	1	4	3	2	0	1	0	0	0	30
-R00-R99 CONDIZ. MORB. MAL DEFINITE	3	0	0	0	1	2	4	10	5	5	11	15	16	20	16	38	51	187	384
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	1	2	3	27	45	41	49	60	51	56	46	57	55	63	95	114	133	162	1060
--V01-V99 Acc. mezzi trasporto	1	0	2	21	29	28	31	33	18	16	15	19	16	18	13	19	31	27	337
--W00-W19 Cadute	0	0	0	0	1	2	2	5	8	5	4	5	11	9	19	22	41	57	191
--X40-X49 Avvel. acc. sost. nocive	0	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	5
--X60-X84 Suicidi	0	0	0	6	12	6	12	15	16	23	18	21	17	21	33	36	27	21	284
--X85-Y09 Omicidi	0	1	0	0	0	2	0	1	1	0	1	0	0	1	0	0	0	0	7

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 16. Numero totale di decessi nella regione dell'Umbria. Femmine, 2004-2008.

ICD10	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTALE
A00-Y99 TUTTE LE CAUSE	76	6	6	13	15	20	42	82	97	163	267	448	604	957	1536	2854	5018	11804	24008
-A00-B99 MAL. INFETTIVE E PARASSITARIE	5	0	0	1	1	0	2	2	6	1	3	6	8	15	20	56	85	89	300
--B15-B19 Epatiti virali	0	0	0	0	0	0	0	0	0	0	1	1	3	10	10	30	25	13	93
--B24 AIDS	1	0	0	0	0	0	0	0	1	5	1	1	0	0	0	0	0	0	9
-C00-D48 TUMORI	3	2	3	2	2	10	17	36	54	111	174	288	372	543	718	973	1210	1358	5876
--C00-C97 Tumori maligni	3	2	3	2	2	10	17	36	53	111	174	288	369	541	711	951	1179	1313	5765
---C01-C06;C10-C13 Cav. orale e faringe	0	0	0	0	0	0	0	1	3	0	0	2	1	4	3	3	3	7	27
---C15-C26 Apparato digerente	0	0	0	0	0	4	2	10	10	27	42	85	114	196	265	386	534	608	2283
----C16 Stomaco	0	0	0	0	0	0	1	4	3	5	7	17	16	47	51	78	130	161	520
----C18-C21 Colon retto	0	0	0	0	0	1	1	3	4	15	17	39	46	61	84	139	163	202	775
---C30-C39 App. respiratorio	0	0	0	0	0	0	0	1	7	21	23	36	53	65	78	89	103	84	560
---C40-C49 Ossa connett. pelle	1	0	0	0	1	1	1	4	4	6	11	15	10	19	23	31	35	47	209
---C50 Mammella	0	0	0	0	0	2	4	8	15	38	51	84	81	83	94	119	135	157	871
---C51-C63 Apparato genitale	1	0	0	0	0	1	3	4	8	5	23	28	49	54	77	120	104	95	572
---C64-C68 Apparato urinario	0	2	0	0	0	0	0	0	1	3	4	11	15	24	30	48	81	219	
---C69-C80 Altre sedi	0	0	1	0	0	0	5	3	4	5	9	18	23	43	53	70	81	108	423
---C81-C90 Linfomi e mielomi	0	0	0	2	1	2	2	3	2	3	4	8	18	41	53	45	68	61	313
---C91-C96 Leucemie	1	0	2	0	0	0	0	1	0	5	6	8	9	21	39	54	64	61	271
-D50-D89 MAL. SANGUE ORG. EMATO	1	0	0	0	0	0	1	1	2	0	2	2	4	4	6	15	32	44	114
-E00-E90 MAL. GHIANDOLE ENDOCRINE	1	0	0	0	0	0	0	2	0	3	4	6	12	21	26	82	129	293	579
--E10-E14 Diabete	0	0	0	0	0	0	0	1	0	2	0	3	6	16	24	65	116	257	490
-F00-F99 DISTURBI PSICHICI	0	0	0	2	1	0	2	2	1	2	1	0	0	6	11	41	137	394	600
-G00-G99 MAL. SISTEMA NERVOSO	0	1	1	0	0	1	0	1	2	7	11	9	21	31	61	148	275	480	1049
--G20 Morbo di Parkinson	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	32	57	90	195
-I00-I99 MAL. SIST. CIRCOLATORIO	1	1	0	2	3	3	2	9	15	18	35	71	122	209	474	1075	2418	6948	11406
--I05-I09 Cardiopatie reum. cro.	0	0	0	0	0	0	0	0	1	1	0	1	5	1	15	20	31	28	103
--I10-I15 Malattia ipertensiva	0	0	0	0	0	0	0	0	0	1	2	6	7	25	37	77	179	582	916
--I20-I25 Mal. ischemiche cuore	0	0	0	0	0	0	1	2	6	5	12	27	45	67	164	350	745	2158	3582
---I21 Infarto miocardio acuto	0	0	0	0	0	0	1	2	6	5	10	22	30	46	91	194	323	616	1346
---I26-I28 Mal. circolo polmonare	0	1	0	0	0	1	0	0	1	1	2	3	1	13	27	37	69	156	
--I30-I52 Altre mal. del cuore	0	0	0	0	2	1	1	3	6	8	7	5	23	39	83	177	459	1283	2097
--I60-I69 Dist. circol. encefalo	1	0	0	1	1	1	0	2	2	2	9	26	28	67	134	371	845	2353	3843
---I61 Emorragia intracerebrale	1	0	0	0	0	0	0	0	2	1	5	13	17	23	31	72	130	175	470
---I63-I65 Occlus. arter. cerebrali	0	0	0	0	0	0	0	0	0	0	0	3	8	27	59	171	410	1240	1918
--I70-I79 Mal. arterie arteriole	0	0	0	0	0	0	0	1	0	0	2	3	4	6	23	41	97	401	578
---I70 Arteriosclerosi	0	0	0	0	0	0	0	0	0	0	2	1	1	3	11	23	55	366	462
-J00-J99 MAL. APP. RESPIRATORIO	3	0	0	0	1	0	1	6	3	2	8	15	21	37	91	173	307	848	1516
--J10-J18 Polmonite e influenza	1	0	0	0	1	0	1	2	2	1	3	4	1	8	22	47	75	281	449
--J40-J47 Malattie cron. respirat.	0	0	0	0	0	0	0	0	0	0	4	3	8	15	34	70	128	349	611
--J60-J70 Mal. polm. agenti esterni	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5	9	26	42
-K00-K93 MAL. APP. DIGERENTE	2	0	0	0	0	0	3	2	2	5	11	12	12	40	49	135	169	348	790
--K20-K31 Mal. esof. stomaco duodeno	0	0	0	0	0	0	0	0	0	1	0	0	2	4	4	10	37	58	277
--K55-K63 Altre mal. intestinali	0	0	0	0	0	0	1	0	0	1	1	2	10	8	47	63	143	277	
--K70-K93 Altre mal. app. digerente	2	0	0	0	0	0	2	2	2	3	6	10	10	26	28	70	84	148	393
---K70-K77 Mal. del fegato	1	0	0	0	0	0	2	0	2	2	6	7	6	20	22	45	32	41	186
----K74 Fibrosi e cirrosi epatica	0	0	0	0	0	0	0	0	1	2	2	6	3	14	13	35	24	31	131
-M00-M99 MAL. SIST. OSTEOMUSCOLARE	0	0	0	0	0	1	0	1	0	1	3	1	3	9	10	14	29	51	123
-N00-N99 MAL. APP. GENITOURINARIO	0	0	0	0	0	0	0	0	0	0	2	5	7	14	16	41	103	246	434
--N00-N29 Nefrite e al. mal. renali	0	0	0	0	0	0	0	0	0	0	2	5	7	13	16	38	90	227	398
---N70-N98 Mal. org. genitali F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-O00-O99 COMPLIC. GRAVID. PARTO	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
-P00-P96 CONDIZ. MORB. PERINATALI	30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	31
-Q00-Q99 MALFORMAZIONI CONGENITE	21	1	0	0	0	1	0	3	0	1	0	7	2	3	1	1	1	4	46
-R00-R99 CONDIZ. MORB. MAL DEFINITE	3	0	0	0	1	0	1	6	0	2	3	7	4	8	10	37	53	441	576
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	6	1	2	6	6	4	13	10	11	10	10	19	16	17	43	63	70	260	567
--V01-V99 Acc. mezzi trasporto	2	1	1	5	5	4	3	4	3	2	5	8	4	7	15	17	7	8	101
--W00-W19 Cadute	0	0	0	0	0	0	0	0	0	1	0	1	2	1	8	19	26	76	134
--X40-X49 Avvel. acc. sost. nocive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
--X60-X84 Suicidi	0	0	1	1	1	0	6	5	7	4	2	4	5	6	7	4	3	4	60
--X85-Y09 Omicidi	0	0	0	0	0	0	3	0	0	1	1	1	1	0	1	1	0	1	10

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 17. Tassi di mortalità per classi di età nella regione dell'Umbria. Maschi, 2004-2008.

ICD10	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTALE
A00-Y99 TUTTE LE CAUSE	59.5	8.7	13.9	31.3	64.7	57.8	61.3	97.5	130.6	200.7	346.6	572	922.1	1347.7	2431.2	4506.5	8137.4	17377.1	1140.2
-A00-B99 MAL. INFETTIVE E PARASSITARIE	1.0	1.1	0.0	0.0	0.9	0.0	0.6	2.4	6.6	5.3	10.2	8.6	4.8	18.6	28.6	54.9	67.9	144.5	12.5
--B15-B19 Epatiti virali	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.0	4.0	4.4	2.9	0.8	7.3	12.0	17.6	17.0	27.9	3.9
--B24 AIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.8	1.3	2.2	1.4	0.8	0.0	0.9	0.0	0.0	0.0	0.6
-C00-D48 TUMORI	1.0	4.3	5.4	2.0	8.1	5.2	7.4	16.5	34.6	80.0	162.4	277.5	477.2	696.9	1118.3	1696.9	2492.2	3037.8	374.6
--C00-C97 Tumori maligni	1.0	4.3	5.4	2.0	8.1	5.2	7.4	16.5	34.6	80.0	161.7	277.5	473.1	690.4	1105.4	1669.5	2436.6	2918.6	368.1
---C01-C06;C10-C13 Cav. orale e faringe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	3.3	5.1	4.3	11.3	10.5	7.4	17.6	17.0	17.7	4.3
---C15-C26 Apparato digerente	0.0	0.0	0.0	0.0	0.9	0.7	1.2	7.1	8.3	24.7	62.4	98.4	172.8	253.6	445.3	615.1	852.3	1110.6	135.5
----C16 Stomaco	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.6	2.4	6.0	17.4	17.1	37.9	71.9	120.8	160.4	208.5	324.6	35.1
----C18-C21 Colon retto	0.0	0.0	0.0	0.0	0.9	0.0	0.0	4.7	1.8	8.7	12.3	34.2	66.2	84.8	137.4	208.7	285.7	408.2	45.7
---C30-C39 App. respiratorio	0.0	0.0	0.0	0.0	0.0	0.7	1.9	1.8	6.6	22.7	48.6	96.3	137.3	210.0	320.8	467.9	560.5	415.9	94.3
---C40-C49 Ossa connett. pelle	1.0	0.0	2.1	1.0	1.8	0.0	2.5	1.2	1.8	7.3	9.4	8.6	15.3	21.8	28.6	36.2	57.1	83.7	11.0
---C50 Mammella	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.1	6.2	2.5	0.3	
---C51-C63 Apparato genitale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1	17.0	29.9	70.1	152.7	335.1	593.4	35.1	
---C64-C68 Apparato urinario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.0	8.0	16.4	36.3	50.9	72.8	151.6	222.3	291.6	29.6
---C69-C80 Altre sedi	0.0	2.2	0.0	1.0	1.8	0.0	1.2	1.8	6.6	12.7	13.8	17.8	38.8	40.4	64.5	82.4	120.4	154.7	22.1
---C81-C90 Linfomi e mielomi	0.0	1.1	0.0	0.0	3.6	1.5	0.0	1.2	4.8	4.0	6.5	12.1	21.0	28.3	42.4	63.7	111.2	126.8	16.0
---C91-C96 Leucemie	0.0	1.1	3.2	0.0	0.0	1.5	0.6	3.0	2.4	2.7	2.2	11.4	16.1	38.0	47.0	74.7	129.7	109.0	16.7
-D50-D89 MAL. SANGUE ORG. EMATO	1.0	0.0	0.0	0.0	0.9	0.7	0.0	0.0	1.2	0.7	1.5	0.7	2.4	4.0	12.0	18.7	47.9	104.0	5.7
-E00-E90 MAL. ghiandole endocrine	1.0	0.0	0.0	0.0	1.8	0.7	0.0	1.2	1.8	3.3	5.8	12.1	23.4	17.8	60.8	86.8	152.9	296.7	21.4
--E10-E14 Diabete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	2.7	4.4	8.6	21.0	14.5	59.0	71.4	140.5	268.8	18.7
-F00-F99 DISTURBI PSICHICI	0.0	0.0	0.0	0.0	4.5	10.4	9.3	8.3	10.7	4.0	4.4	2.9	6.5	8.1	17.5	47.2	92.6	441.2	18.8
-G00-G99 MAL. SISTEMA NERVOSO	6.3	0.0	3.2	1.0	0.9	3.0	0.6	1.2	4.2	3.3	4.4	9.3	16.1	31.5	58.1	151.6	325.8	540.1	34.8
--G20 Morbo di Parkinson	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	8.1	11.1	62.6	98.8	185.1	10.3
-I00-I99 MAL. SIST. CIRCOLATORIO	2.1	0.0	1.1	1.0	2.7	4.4	7.4	19.5	24.5	44.0	88.5	167.6	254.3	375.5	740.3	1645.3	3352.2	8857.2	440.3
--I05-I09 Cardiopatie reum. cro.	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.0	2.9	0.8	4.8	8.3	11.0	21.6	33.0	2.8
--I10-I15 Malattia ipertensiva	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.8	2.0	5.1	15.7	19.4	25.8	36.0	82.4	196.1	494.5	25.1
--I20-I25 Mal. ischemiche cuore	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	11.3	16.0	42.8	84.2	121.1	168.8	308.9	620.6	1281.6	3144.3	169.1
---I21 Infarto miocardio acuto	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	10.1	14.0	33.4	64.2	90.4	107.4	182.5	328.4	571.3	994.0	80.0
---I26-I28 Mal. circolo polmonare	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.1	1.6	0.8	18.4	38.4	61.8	106.5	6.8
---I30-I32 Altre mal. del cuore	2.1	0.0	1.1	1.0	2.7	3.7	5.6	10.0	6.0	14.0	19.6	29.2	42.8	67.0	106.0	264.7	540.4	1501.1	74.6
--I60-I69 Dist. circol. encefalo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.4	8.7	18.9	26.4	54.9	76.7	202.8	526.1	1059.2	2956.6	132.9
---I61 Emorragia intracerebrale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.8	4.0	8.7	12.1	17.0	25.8	65.5	129.6	148.2	248.5	22.6
---I63-I65 Occlus. arter. cerebrali	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	2.7	2.9	6.4	23.4	31.5	77.4	235.0	508.0	1496.1	61.9
---I70-I79 Mal. arterie arteriole	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.2	1.3	0.7	6.4	11.3	26.6	48.9	89.0	171.4	542.6	24.9
---I70 Arteriosclerosi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.8	15.7	45.0	97.3	423.5	14.1	
-J00-J99 MAL. APP. RESPIRATORIO	2.1	0.0	1.1	0.0	1.8	0.7	3.1	3.5	6.6	3.3	6.5	14.3	29.1	64.6	159.5	384.4	887.9	2005.7	98.2
--J10-J18 Polmonite e influenza	1.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	2.0	1.5	5.0	7.3	15.3	34.1	57.1	196.1	484.3	21.4	
--J40-J47 Malattie cron. respirat.	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	1.2	0.0	2.2	5.0	8.1	29.9	83.0	226.3	515.7	1156.3	54.5
--J60-J70 Mal. pulm. agenti esterni	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	7.4	13.2	38.6	71.0	3.5
-K00-K93 MAL. APP. DIGERENTE	0.0	0.0	0.0	0.0	0.0	0.7	0.0	2.4	5.4	12.7	16.7	22.8	41.2	45.2	95.0	158.2	259.4	560.4	39.5
--K20-K31 Mal. esof. stomaco duodeno	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.4	1.6	1.6	4.6	8.8	27.8	40.6	2.6	
--K55-K63 Altre mal. intestinali	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.9	2.1	3.2	4.8	18.4	36.2	67.9	210.5	9.4
--K70-K93 Altre mal. app. digerente	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.6	5.4	11.3	12.3	19.3	33.9	37.1	64.5	99.9	148.2	261.2	24.7
---K70-K77 Mal. del fegato	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	3.6	10.7	10.2	17.8	30.7	32.3	47.0	60.4	72.6	65.9	15.2
---K74 Fibrosi e cirrosi epatica	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	6.7	5.8	8.6	17.8	21.8	30.4	40.6	51.0	38.0	9.5
-M00-M99 MAL. SIST. OSTEO MUSCOLARE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.7	0.7	0.0	3.2	0.8	7.4	12.1	13.9	45.6	2.6
-N00-N99 MAL. APP. GENTOURINARIO	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.0	1.5	2.9	4.8	17.8	30.4	83.5	160.6	459.0	20.6	
--N00-N29 Nefrite e al. mal. renali	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.0	1.5	2.9	4.8	16.2	29.5	75.8	149.8	405.7	18.8	
-P00-P96 CONDIZ. MORB. PERINATALI	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
-Q00-Q99 MALFORMAZIONI CONGENITE	13.6	1.1	0.0	0.0	1.8	0.0	0.0	0.6	1.2	0.7	2.9	2.1	1.6	0.0	0.9	0.0	0.0	0.0	1.4
-R00-R99 CONDIZ. MORB. MAL DEFINITE	3.1	0.0	0.0	0.0	0.9	1.5	2.5	5.9	3.0	3.3	8.0	10.7	12.9	16.2	14.8	41.7	78.7	474.2	18.2
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	1.0	2.2	3.2	27.3	40.4	30.4	30.3	35.5	30.4	37.3	33.4	40.7	44.4	50.9	87.6	125.2	205.4	410.8	50.4
--V01-V99 Acc. mezzi trasporto	1.0	0.0	2.1	21.2	26.0	20.7	19.2	19.5	10.7	10.7	10.9	13.6	12.9	14.5	12.0	20.9	47.9	68.5	16.0
--W00-W19 Cadute	0.0	0.0	0.0	0.0	0.9	1.5	1.2	3.0	4.8	3.3	2.9	3.6	8.9	7.3	17.5	24.2	63.3	144.5	9.1
--X40-X49 Avvel. acc. sost. nocive	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.0	0.7	0.0	0.0	0.8	0.9	0.0	0.0	0.0	0.2
--X60-X84 Suicidi	0.0	0.0	0.0	6.1	10.8	4.4	7.4	8.9	9.5	15.3	13.1	15.0	13.7	17.0	30.4	39.5	41.7	53.2	13.5
--X85-Y09 Omicidi	0.0	1.1	0.0	0.0	0.0	1.5	0.0	0.6	0.6	0.0	0.7	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.3

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 18. Tassi di mortalità per classi di età nella regione dell'Umbria. Femmine, 2004-2008.

ICD10	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TOTALE
A00-Y99 TUTTE LE CAUSE	83.6	7	6.8	14	14.2	15.1	26.2	48.9	57.7	107	187.4	305.4	453.7	693.9	1174.6	2296.4	4714.7	13739.1	1066.7
-A00-B99 MAL. INFETTIVE E PARASSITARIE	5.5	0.0	0.0	1.1	0.9	0.0	1.2	1.2	3.6	0.7	2.1	4.1	6.0	10.9	15.3	45.1	79.9	103.6	13.3
--B15-B19 Epatiti virali	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.3	7.3	7.6	24.1	23.5	15.1	4.1	
--B24 AIDS	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
-C00-D48 TUMORI	3.3	2.3	3.4	2.2	1.9	7.6	10.6	21.5	32.1	72.9	122.1	196.3	279.4	393.7	549.1	782.9	1136.9	1580.6	261.1
--C00-C97 Tumori maligni	3.3	2.3	3.4	2.2	1.9	7.6	10.6	21.5	31.5	72.9	122.1	196.3	277.2	392.3	543.7	765.2	1107.7	1528.2	256.1
---C01-C06;C10-C13 Cav. orale e faringe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.8	0.0	0.0	1.4	0.8	2.9	2.3	2.4	2.8	8.1	1.2
---C15-C26 Apparato digerente	0.0	0.0	0.0	0.0	0.0	3.0	1.2	6.0	5.9	17.7	29.5	57.9	85.6	142.1	202.6	310.6	501.7	707.7	101.4
----C16 Stomaco	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.4	1.8	3.3	4.9	11.6	12.0	34.1	39.0	62.8	122.1	187.4	23.1
----C18-C21 Colon retto	0.0	0.0	0.0	0.0	0.0	0.8	0.6	1.8	2.4	9.8	11.9	26.6	34.6	44.2	64.2	111.8	153.1	235.1	34.4
---C30-C39 App. respiratorio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.2	13.8	16.1	24.5	39.8	47.1	59.6	71.6	96.8	97.8	24.9
---C40-C49 Ossa connett. pelle	1.1	0.0	0.0	0.0	0.9	0.8	0.6	2.4	3.9	7.7	10.2	7.5	13.8	17.6	24.9	32.9	54.7	54.7	9.3
---C50 Mammella	0.0	0.0	0.0	0.0	1.5	2.5	4.8	8.9	24.9	35.8	57.3	60.8	60.2	71.9	95.8	126.8	182.7	182.7	38.7
---C51-C63 Apparato genitale	1.1	0.0	0.0	0.0	0.8	1.9	2.4	4.8	3.3	16.1	19.1	36.8	39.2	58.9	96.6	97.7	110.6	25.4	
---C64-C68 Apparato urinario	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.1	2.7	8.3	10.9	18.4	24.1	45.1	94.3	9.7	
---C69-C80 Altre sedi	0.0	0.0	1.1	0.0	0.0	0.0	3.1	1.8	2.4	3.3	6.3	12.3	17.3	31.2	40.5	56.3	76.1	125.7	18.8
---C81-C90 Linfomi e mielomi	0.0	0.0	0.0	2.2	0.9	1.5	1.2	1.8	1.2	2.0	2.8	5.5	13.5	29.7	40.5	36.2	63.9	71.0	13.9
---C91-C96 Leucemie	1.1	0.0	2.3	0.0	0.0	0.0	0.6	0.0	3.3	4.2	5.5	6.8	15.2	29.8	43.5	60.1	71.0	12.0	
-D50-D89 MAL. SANGUE ORG. EMATO	1.1	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.2	0.0	1.4	1.4	3.0	2.9	4.6	12.1	30.1	51.2	5.1
-E00-E90 MAL. ghiandole endocrine	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	2.0	2.8	4.1	9.0	15.2	19.9	66.0	121.2	341.0	25.7
--E10-E14 Diabete	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.3	0.0	2.0	4.5	11.6	18.4	52.3	109.0	299.1	21.8	
-F00-F99 DISTURBI PSICHICI	0.0	0.0	0.0	2.2	0.9	0.0	1.2	1.2	0.6	1.3	0.7	0.0	4.4	8.4	33.0	128.7	458.6	26.7	
-G00-G99 MAL. SISTEMA NERVOSO	0.0	1.2	1.1	0.0	0.0	0.8	0.0	0.6	1.2	4.6	7.7	6.1	15.8	22.5	46.6	119.1	258.4	558.7	46.6
--G20 Morbo di Parkinson	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	11.5	25.7	53.6	104.8	8.7	
-I00-I99 MAL. SIST. CIRCOLATORIO	1.1	1.2	0.0	2.2	2.8	2.3	1.2	5.4	8.9	11.8	24.6	48.4	91.6	151.6	362.5	865.0	2271.9	8087.0	506.8
--I05-I09 Cardiopatie reum. cro.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.0	0.7	3.8	0.7	11.5	16.1	29.1	32.6	4.6	
--I10-I15 Malattia ipertensiva	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	4.1	5.3	18.1	28.3	62.0	168.2	677.4	40.7	
--I20-I25 Mal. ischemiche cuore	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	3.6	3.3	8.4	18.4	33.8	48.6	125.4	281.6	700.0	2511.8	159.1
--I21 Infarto miocardico acuto	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	3.6	3.3	7.0	15.0	22.5	33.4	69.6	156.1	303.5	717.0	59.8
--I26-I28 Mal. circolo polmonare	0.0	1.2	0.0	0.0	0.0	0.8	0.0	0.0	0.7	0.7	1.4	2.3	0.7	9.9	21.7	34.8	80.3	6.9	
--I30-I32 Altre mal. del cuore	0.0	0.0	0.0	1.9	0.8	0.6	1.8	3.6	5.3	4.9	3.4	17.3	28.3	63.5	142.4	431.3	1493.3	93.2	
--I60-I69 Dist. circol. encefalo	1.1	0.0	0.0	1.1	0.9	0.8	0.0	1.2	1.2	1.3	6.3	17.7	21.0	48.6	102.5	298.5	793.9	2738.7	170.7
--I61 Emorragia intracerebrale	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.7	3.5	8.9	12.8	16.7	23.7	57.9	122.1	203.7	20.9	
--I63-I65 Occlus. arter. cerebrali	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.0	19.6	45.1	137.6	385.2	1443.3	85.2	
--I70-I79 Mal. arterie arteriole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.4	2.0	3.0	4.4	17.6	33.0	91.1	466.7	25.7	
--I70 Arteriosclerosi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.7	0.8	2.2	8.4	18.5	51.7	426.0	20.5	
-J00-J99 MAL. APP. RESPIRATORIO	3.3	0.0	0.0	0.0	0.9	0.0	0.6	3.6	1.8	1.3	5.6	10.2	15.8	26.8	69.6	139.2	288.4	987.0	67.4
--J10-J18 Polmonite e influenza	1.1	0.0	0.0	0.0	0.9	0.0	0.6	1.2	1.2	0.7	2.1	2.7	0.8	5.8	16.8	37.8	70.5	327.1	19.9
--J40-J47 Malattie cron. respirat.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.0	6.0	10.9	26.0	56.3	120.3	406.2	27.1	
--J60-J70 Mal. pulm. agenti esterni	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	8.5	30.3	3.1	1.9	
-K00-K93 MAL. APP. DIGERENTE	2.2	0.0	0.0	0.0	0.0	0.0	1.9	1.2	1.2	3.3	7.7	8.2	9.0	29.0	37.5	108.6	158.8	405.0	35.1
--K20-K31 Mal. esof. stomaco duodeno	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	1.5	3.1	3.2	9.4	43.1	2.6
--K55-K63 Altre mal. intestinali	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.7	0.7	0.7	1.5	7.3	6.1	37.8	59.2	166.4	12.3	
--K70-K93 Altre mal. app. digerente	2.2	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	2.0	4.2	6.8	7.5	18.9	21.4	56.3	78.9	172.3	17.5
---K70-K77 Mal. del fegato	1.1	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.2	1.3	4.2	4.8	4.5	14.5	16.8	36.2	30.1	47.7	8.3
----K74 Fibrosi e cirrosi epatica	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	1.4	4.1	2.3	10.2	9.9	28.2	22.5	36.1	5.8
-M00-M99 MAL. SIST. OSTEO MUSCOLARE	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.6	0.0	0.7	2.1	0.7	2.3	6.5	7.6	11.3	27.2	59.4	5.5
-N00-N99 MAL. APP. GENTOURINARIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.4	5.3	10.2	12.2	33.0	96.8	286.3	19.3	
--N00-N29 Nefrite e al. mal. renali	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.4	5.3	9.4	12.2	30.6	84.6	264.2	17.7	
--N70-N98 Mal. org. genitali F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
-O00-O99 COMPLIC. GRAVID. PARTO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-P00-P96 CONDIZ. MORB. PERINATALI	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
-Q00-Q99 MALFORMAZIONI CONGENITE	23.1	1.2	0.0	0.0	0.0	0.8	0.0	1.8	0.0	0.7	0.0	4.8	1.5	2.2	0.8	0.8	0.9	4.7	2.0
-R00-R99 CONDIZ. MORB. MAL DEFINITE	3.3	0.0	0.0	0.0	0.9	0.0	0.6	3.6	0.0	1.3	2.1	4.8	3.0	5.8	7.6	29.8	49.8	513.3	25.6
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	6.6	1.2	2.3	6.5	5.7	3.0	8.1	6.0	6.5	6.6	7.0	13.0	12.0	12.3	32.9	50.7	65.8	302.6	25.2
--V01-V99 Acc. mezzi trasporto	2.2	1.2	1.1	5.4	4.7	3.0	1.9	2.4	1.8	1.3	3.5	5.5	3.0	5.1	11.5	13.7	6.6	9.3	4.5
--W00-W19 Cadute	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	1.5	0.7	6.1	15.3	24.4	88.5	6.0
--X40-X49 Avvel. acc. sost. nocive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	1.2	0.1
--X60-X84 Suicidi	0.0	0.0	1.1	1.1	0.9	0.0	3.7	3.0	4.2	2.6	1.4	2.7	3.8	4.4	5.4	3.2	2.8	4.7	2.7
--X85-Y09 Omicidi	0.0	0.0	0.																

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 19. Tassi di mortalità standardizzati (pop. 2001) nella regione dell'Umbria. 2004-2008.

ICD10	MASCHI				FEMMINE			
	Umbria(e.s.)	Italia(e.s.)	Europa(e.s.)	Mondiale(e.s.)	Umbria(e.s.)	Italia(e.s.)	Europa(e.s.)	Mondiale(e.s.)
A00-Y99 TUTTE LE CAUSE	1338.9 (8.2)	1089.5 (6.5)	628.2 (4.2)	390.1 (2.8)	829.0 (5.2)	671.0 (4.2)	375.1 (2.8)	228.6 (2.1)
-A00-B99 MAL. INFETTIVE E PARASSITARIE	14.3 (0.9)	11.9 (0.7)	7.6 (0.5)	5.0 (0.4)	10.7 (0.6)	8.7 (0.5)	5.4 (0.4)	3.7 (0.4)
--B15-B19 Epatiti virali	4.4 (0.5)	3.7 (0.4)	2.5 (0.3)	1.7 (0.2)	3.5 (0.4)	2.8 (0.3)	1.6 (0.2)	1.0 (0.1)
--B24 AIDS	0.6 (0.2)	0.6 (0.2)	0.6 (0.2)	0.4 (0.1)	0.4 (0.1)	0.4 (0.1)	0.4 (0.2)	0.4 (0.2)
-C00-D48 TUMORI	422.7 (4.7)	348.2 (3.8)	214.1 (2.5)	136.8 (1.7)	222.6 (2.9)	186.3 (2.5)	120.4 (1.8)	79.5 (1.3)
--C00-C97 Tumori maligni	414.9 (4.6)	342.0 (3.8)	210.9 (2.5)	135.0 (1.7)	218.8 (2.9)	183.3 (2.4)	118.9 (1.8)	78.6 (1.3)
---C01-C06;C10-C13 Cav. orale e faringe	4.7 (0.5)	4.1 (0.4)	2.9 (0.3)	2.0 (0.2)	1.0 (0.2)	0.9 (0.2)	0.6 (0.1)	0.4 (0.1)
---C15-C26 Apparato digerente	153.5 (2.8)	126.4 (2.3)	77.4 (1.5)	49.1 (1.0)	84.3 (1.8)	69.4 (1.5)	42.3 (1.0)	26.8 (0.7)
----C16 Stomaco	40.2 (1.5)	33.0 (1.2)	19.9 (0.8)	12.5 (0.5)	18.7 (0.8)	15.3 (0.7)	9.1 (0.5)	5.7 (0.3)
----C18-C21 Colon retto	52.0 (1.7)	42.8 (1.4)	26.0 (0.9)	16.5 (0.6)	28.9 (1.0)	24.0 (0.9)	15.1 (0.6)	9.7 (0.4)
---C30-C39 App. respiratorio	104.2 (2.3)	86.6 (1.9)	55.5 (1.3)	36.1 (0.9)	22.0 (0.9)	18.8 (0.8)	12.9 (0.6)	8.8 (0.4)
---C40-C49 Ossa connett. pelle	12.2 (0.8)	10.4 (0.7)	7.1 (0.5)	5.0 (0.4)	8.1 (0.6)	6.9 (0.5)	4.8 (0.4)	3.4 (0.3)
---C50 Mammella	0.4 (0.1)	0.3 (0.1)	0.2 (0.1)	0.1 (0.0)	34.4 (1.2)	29.8 (1.0)	21.5 (0.8)	14.9 (0.6)
---C51-C63 Apparato genitale	41.7 (1.5)	33.1 (1.2)	17.2 (0.7)	9.6 (0.3)	22.4 (0.9)	18.9 (0.8)	12.5 (0.6)	8.3 (0.4)
---C64-C68 Apparato urinario	33.9 (1.3)	27.5 (1.1)	16.0 (0.7)	9.8 (0.4)	7.9 (0.5)	6.4 (0.4)	3.8 (0.3)	2.4 (0.2)
---C69-C80 Altre sedi	24.6 (1.1)	20.8 (0.9)	13.8 (0.7)	9.4 (0.5)	16.0 (0.8)	13.4 (0.7)	8.5 (0.5)	5.6 (0.3)
---C81-C90 Linfomi e mielomi	17.8 (1.0)	14.8 (0.8)	9.4 (0.6)	6.3 (0.4)	12.0 (0.7)	10.1 (0.6)	6.4 (0.4)	4.4 (0.3)
---C91-C96 Leucemie	18.5 (1.0)	15.3 (0.8)	9.5 (0.5)	6.3 (0.4)	10.1 (0.6)	8.3 (0.5)	5.2 (0.4)	3.4 (0.3)
-D50-D89 MAL. SANGUE ORG. EMATO	6.7 (0.6)	5.4 (0.5)	3.0 (0.3)	1.9 (0.2)	4.0 (0.4)	3.2 (0.3)	1.9 (0.2)	1.2 (0.2)
-E00-E90 MAL. GHIANDOLE ENDOCRINE	25.1 (1.2)	20.4 (0.9)	11.8 (0.6)	7.3 (0.4)	19.7 (0.8)	15.7 (0.6)	8.3 (0.4)	4.8 (0.3)
--E10-E14 Diabete	22.0 (1.1)	17.8 (0.9)	10.0 (0.5)	6.0 (0.3)	16.4 (0.7)	13.0 (0.6)	6.6 (0.3)	3.7 (0.2)
-F00-F99 DISTURBI PSICHICI	22.9 (1.1)	19.1 (0.9)	11.2 (0.6)	7.5 (0.4)	19.3 (0.8)	15.3 (0.6)	7.5 (0.3)	4.1 (0.2)
-G00-G99 MAL. SISTEMA NERVOSO	40.8 (1.5)	32.7 (1.2)	18.1 (0.7)	11.2 (0.5)	35.7 (1.1)	28.5 (0.9)	15.2 (0.5)	8.8 (0.3)
--G20 Morbo di Parkinson	12.4 (0.8)	9.7 (0.6)	4.8 (0.3)	2.5 (0.1)	6.5 (0.5)	5.1 (0.4)	2.5 (0.2)	1.3 (0.1)
-I00-I99 MAL. SIST. CIRCOLATORIO	532.8 (5.3)	426.8 (4.2)	228.7 (2.4)	131.6 (1.3)	376.4 (3.4)	298.5 (2.6)	149.6 (1.5)	81.6 (0.8)
--I05-I09 Cardiopatie reum. cro.	3.2 (0.4)	2.6 (0.3)	1.5 (0.2)	0.9 (0.1)	3.7 (0.4)	2.9 (0.3)	1.6 (0.2)	1.0 (0.1)
--I10-I15 Malattia ipertensiva	30.2 (1.3)	24.3 (1.0)	13.3 (0.6)	7.7 (0.3)	30.2 (1.0)	23.9 (0.8)	11.9 (0.4)	6.4 (0.2)
--I20-I25 Mal. ischemiche cuore	202.6 (3.3)	162.9 (2.6)	89.1 (1.6)	51.9 (0.8)	118.7 (1.9)	94.2 (1.5)	47.4 (0.9)	25.9 (0.4)
--I21 Infarto miocardio acuto	92.3 (2.2)	75.4 (1.8)	44.6 (1.1)	27.5 (0.7)	46.2 (1.3)	37.0 (1.0)	19.9 (0.6)	11.4 (0.4)
--I26-I28 Mal. circolo polmonare	8.2 (0.7)	6.4 (0.5)	3.3 (0.3)	1.8 (0.1)	5.4 (0.4)	4.3 (0.3)	2.3 (0.2)	1.4 (0.2)
--I30-I52 Altre mal. del cuore	90.0 (2.2)	72.7 (1.8)	40.1 (1.1)	23.9 (0.6)	69.0 (1.5)	54.8 (1.1)	27.5 (0.7)	15.1 (0.4)
--I60-I69 Dist. circol. encefalo	163.3 (3.0)	129.6 (2.3)	66.4 (1.3)	36.7 (0.6)	126.1 (2.0)	99.7 (1.5)	49.4 (0.9)	26.6 (0.4)
--I61 Emorragia intracerebrale	26.2 (1.2)	21.2 (1.0)	12.2 (0.6)	7.4 (0.4)	16.4 (0.8)	13.2 (0.6)	7.4 (0.4)	4.5 (0.3)
--I63-I65 Occlus. arter. cerebrali	76.9 (2.1)	60.7 (1.6)	30.3 (0.9)	16.4 (0.4)	62.3 (1.4)	49.0 (1.1)	23.6 (0.6)	12.3 (0.2)
--I70-I79 Mal. arterie arteriole	30.5 (1.3)	24.4 (1.0)	12.8 (0.6)	7.2 (0.3)	18.9 (0.8)	15.0 (0.6)	7.4 (0.3)	3.9 (0.1)
--I70 Arteriosclerosi	18.2 (1.0)	14.3 (0.8)	6.9 (0.4)	3.6 (0.1)	14.9 (0.7)	11.8 (0.5)	5.7 (0.3)	2.9 (0.1)
-J00-J99 MAL. APP. RESPIRATORIO	118.9 (2.6)	94.2 (2.0)	48.3 (1.1)	27.0 (0.6)	51.2 (1.3)	40.9 (1.0)	21.3 (0.6)	12.2 (0.4)
--J10-J18 Polmonite e influenza	26.0 (1.2)	20.7 (0.9)	10.7 (0.5)	6.0 (0.3)	15.0 (0.7)	12.0 (0.6)	6.2 (0.3)	3.5 (0.2)
--J40-J47 Malattie cron. respirat.	66.4 (1.9)	52.2 (1.5)	25.9 (0.8)	14.0 (0.3)	20.5 (0.8)	16.2 (0.6)	8.2 (0.4)	4.5 (0.2)
--J60-J70 Mal. pulm. agenti esterni	4.2 (0.5)	3.3 (0.4)	1.6 (0.2)	0.9 (0.1)	1.4 (0.2)	1.1 (0.2)	0.5 (0.1)	0.3 (0.0)
-K00-K93 MAL. APP. DIGERENTE	46.2 (1.6)	37.7 (1.3)	22.1 (0.8)	13.6 (0.5)	27.6 (1.0)	22.2 (0.8)	12.3 (0.5)	7.3 (0.4)
--K20-K31 Mal. esof. stomaco duodeno	3.0 (0.4)	2.4 (0.3)	1.3 (0.2)	0.7 (0.1)	1.9 (0.3)	1.5 (0.2)	0.8 (0.1)	0.4 (0.1)
--K55-K63 Altre mal. intestinali	11.6 (0.8)	9.2 (0.6)	4.8 (0.4)	2.7 (0.2)	9.3 (0.6)	7.4 (0.4)	3.7 (0.2)	2.0 (0.1)
--K70-K93 Altre mal. app. digerente	28.2 (1.2)	23.3 (1.0)	14.5 (0.7)	9.3 (0.4)	14.0 (0.7)	11.4 (0.6)	6.7 (0.4)	4.2 (0.3)
---K70-K77 Mal. del fegato	16.6 (0.9)	14.1 (0.8)	9.7 (0.6)	6.6 (0.4)	7.1 (0.5)	5.9 (0.4)	3.7 (0.3)	2.5 (0.2)
----K74 Fibrosi e cirrosi epatica	10.4 (0.7)	8.7 (0.6)	5.8 (0.4)	3.9 (0.3)	4.9 (0.4)	4.0 (0.4)	2.4 (0.2)	1.5 (0.2)
-M00-M99 MAL. SIST. OSTEO MUSCOLARE	3.1 (0.4)	2.5 (0.3)	1.4 (0.2)	0.8 (0.1)	4.3 (0.4)	3.5 (0.3)	2.0 (0.2)	1.3 (0.1)
-N00-N99 MAL. APP. GENITOURINARIO	25.3 (1.2)	20.1 (0.9)	10.3 (0.5)	5.7 (0.3)	14.4 (0.7)	11.4 (0.5)	5.8 (0.3)	3.2 (0.2)
--N00-N29 Nefrite e al. mal. renali	23.0 (1.1)	18.2 (0.9)	9.4 (0.5)	5.3 (0.3)	13.2 (0.7)	10.5 (0.5)	5.4 (0.3)	3.0 (0.2)
--N70-N98 Mal. org. genitali F	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
-O00-O99 COMPLIC. GRAVID. PARTO	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
-P00-P96 CONDIZ. MORB. PERINATALI	1.0 (0.2)	1.2 (0.2)	2.1 (0.4)	3.1 (0.6)	1.3 (0.2)	1.6 (0.3)	2.7 (0.5)	4.0 (0.7)
-Q00-Q99 MALFORMAZIONI CONGENITE	1.3 (0.2)	1.4 (0.3)	1.9 (0.4)	2.3 (0.5)	2.0 (0.3)	2.0 (0.3)	2.7 (0.4)	3.5 (0.6)
-R00-R99 CONDIZ. MORB. MAL DEFINITE	22.7 (1.1)	18.7 (0.9)	10.7 (0.6)	6.8 (0.4)	19.1 (0.8)	15.4 (0.6)	8.0 (0.4)	4.7 (0.3)
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	55.0 (1.7)	49.1 (1.5)	37.0 (1.2)	29.4 (1.1)	20.7 (0.9)	17.7 (0.8)	11.8 (0.6)	8.7 (0.6)
--V01-V99 Acc. mezzi trasporto	16.7 (0.9)	16.0 (0.9)	13.9 (0.8)	12.6 (0.8)	4.3 (0.4)	4.0 (0.4)	3.5 (0.4)	3.1 (0.4)
--W00-W19 Cadute	10.6 (0.8)	8.7 (0.6)	5.3 (0.4)	3.4 (0.3)	4.5 (0.4)	3.6 (0.3)	1.8 (0.2)	1.0 (0.1)
--X40-X49 Avvel. acc. sost. nocive	0.2 (0.1)	0.2 (0.1)	0.2 (0.1)	0.2 (0.1)	0.1 (0.1)	0.1 (0.0)	0.0 (0.0)	0.0 (0.0)
--X60-X84 Suicidi	14.3 (0.8)	12.9 (0.8)	10.2 (0.6)	8.0 (0.6)	2.6 (0.3)	2.5 (0.3)	2.1 (0.3)	1.7 (0.3)
--X85-Y09 Omicidi	0.3 (0.1)	0.3 (0.1)	0.3 (0.1)	0.4 (0.2)	0.4 (0.1)	0.4 (0.1)	0.4 (0.1)	0.3 (0.1)

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 20. Tassi standardizzati di YPLL nella regione dell'Umbria, 2004-2008.

ICD10	MASCHI				FEMMINE			
	numero di YPLL		tassi standard YPLL		numero di YPLL		tassi standard YPLL	
	<65 anni	<75 anni	<65 anni	<75 anni	<65 anni	<75 anni	<65 anni	<75 anni
A00-Y99 TUTTE LE CAUSE	44957.5	98717.5	2680.8	5170.3	24277.5	53685.0	1457.7	2775.6
-A00-B99 MAL. INFETTIVE E PARASSITARIE	972.5	1812.5	58.0	94.9	777.5	1290.0	46.7	66.7
--B15-B19 Epatiti virali	352.5	682.5	21.0	35.7	27.5	177.5	1.7	9.2
--B24 AIDS	185.0	307.5	11.0	16.1	232.5	322.5	14.0	16.7
-C00-D48 TUMORI	13055.0	37060.0	778.5	1941.0	10980.0	27587.5	659.3	1426.3
--C00-C97 Tumori maligni	13030.0	36880.0	777.0	1931.6	10950.0	27485.0	657.5	1421.0
---C01-C06;C10-C13 Cav. orale e faringe	345.0	822.5	20.6	43.1	112.5	220.0	6.8	11.4
---C15-C26 Apparato digerente	4082.5	12695.0	243.4	664.9	2635.0	7707.5	158.2	398.5
----C16 Stomaco	910.0	3005.0	54.3	157.4	552.5	1562.5	33.2	80.8
----C18-C21 Colon retto	1335.0	4215.0	79.6	220.8	1125.0	3052.5	67.5	157.8
---C30-C39 App. respiratorio	3335.0	10395.0	198.9	544.4	1242.5	3335.0	74.6	172.4
---C40-C49 Ossa connett. pelle	1045.0	2025.0	62.3	106.1	755.0	1495.0	45.3	77.3
---C50 Mammella	7.5	17.5	0.4	0.9	2897.5	6585.0	174.0	340.5
---C51-C63 Apparato genitale	190.0	1017.5	11.3	53.3	1195.0	3012.5	71.8	155.8
---C64-C68 Apparato urinario	547.5	2067.5	32.6	108.3	227.5	610.0	13.7	31.5
---C69-C80 Altre sedi	1520.0	3390.0	90.6	177.5	780.0	1915.0	46.8	99.0
---C81-C90 Linfomi e mielomi	947.5	2075.0	56.5	108.7	612.5	1502.5	36.8	77.7
---C91-C96 Leucemie	827.5	1897.5	49.3	99.4	440.0	1015.0	26.4	52.5
-D50-D89 MAL. SANGUE ORG. EMATO	245.0	435.0	14.6	22.8	217.5	392.5	13.1	20.3
-E00-E90 MAL. GHIANDOLE ENDOCRINE	695.0	1705.0	41.4	89.3	295.0	797.5	17.7	41.2
--E10-E14 Diabete	350.0	1145.0	20.9	60.0	100.0	400.0	6.0	20.7
-F00-F99 DISTURBI PSICHICI	2245.0	3267.5	133.9	171.1	327.5	510.0	19.7	26.4
-G00-G99 MAL. SISTEMA NERVOSO	1327.5	2467.5	79.2	129.2	600.0	1525.0	36.0	78.8
--G20 Morbo di Parkinson	2.5	117.5	0.1	6.2	0.0	45.0	0.0	2.3
-I00-I99 MAL. SIST. CIRCOLATORIO	8027.5	21892.5	478.7	1146.6	2695.0	8267.5	161.8	427.4
--I05-I09 Cardiopatie reum. cro.	87.5	225.0	5.2	11.8	60.0	185.0	3.6	9.6
--I10-I15 Malattia ipertensiva	492.5	1440.0	29.4	75.4	105.0	545.0	6.3	28.2
--I20-I25 Mal. ischemiche cuore	3092.5	9287.5	184.4	486.4	775.0	2667.5	46.5	137.9
---I21 Infarto miocardio acuto	2445.0	6857.5	145.8	359.2	675.0	2007.5	40.5	103.8
---I26-I28 Mal. circolo polmonare	40.0	157.5	2.4	8.2	147.5	277.5	8.9	14.3
--I30-I52 Altre mal. del cuore	2670.0	5480.0	159.2	287.0	695.0	1755.0	41.7	90.7
--I60-I69 Dist. circol. encefalo	1172.5	3945.0	69.9	206.6	702.5	2270.0	42.2	117.4
---I61 Emorragia intracerebrale	557.5	1585.0	33.2	83.0	327.5	967.5	19.7	50.0
---I63-I65 Occlus. arter. cerebrali	287.5	1260.0	17.1	66.0	42.5	502.5	2.6	26.0
--I70-I79 Mal. arterie arteriole	282.5	972.5	16.8	50.9	85.0	287.5	5.1	14.9
---I70 Arteriosclerosi	7.5	125.0	0.4	6.5	35.0	125.0	2.1	6.5
-J00-J99 MAL. APP. RESPIRATORIO	1315.0	3327.5	78.4	174.3	795.0	1900.0	47.7	98.2
--J10-J18 Polmonite e influenza	265.0	740.0	15.8	38.8	325.0	600.0	19.5	31.0
--J40-J47 Malattie cron. respirat.	202.5	935.0	12.1	49.0	92.5	440.0	5.6	22.7
--J60-J70 Mal. polm. agenti esterni	0.0	27.5	0.0	1.4	2.5	15.0	0.2	0.8
-K00-K93 MAL. APP. DIGERENTE	1337.5	3405.0	79.8	178.3	667.5	1580.0	40.1	81.7
--K20-K31 Mal. esof. stomaco duodeno	47.5	125.0	2.8	6.5	12.5	47.5	0.8	2.5
--K55-K63 Altre mal. intestinali	100.0	315.0	6.0	16.5	75.0	230.0	4.5	11.9
--K70-K93 Altre mal. app. digerente	1085.0	2745.0	64.7	143.8	517.5	1152.5	31.1	59.6
---K70-K77 Mal. del fegato	910.0	2337.5	54.3	122.4	350.0	815.0	21.0	42.1
----K74 Fibrosi e cirrosi epatica	465.0	1290.0	27.7	67.6	135.0	412.5	8.1	21.3
-M00-M99 MAL. SIST. OSTEOMUSCOLARE	67.5	165.0	4.0	8.6	135.0	327.5	8.1	16.9
-N00-N99 MAL. APP. GENITOURINARIO	207.5	625.0	12.4	32.7	80.0	365.0	4.8	18.9
--N00-N29 Nefrite e al. mal. renali	207.5	607.5	12.4	31.8	80.0	357.5	4.8	18.5
-O00-O99 COMPLIC. GRAVID. PARTO	0.0	0.0	0.0	0.0	27.5	37.5	1.7	1.9
-P00-P96 CONDIZ. MORB. PERINATALI	1562.5	1812.5	93.2	94.9	1897.5	2207.5	113.9	114.1
-Q00-Q99 MALFORMAZIONI CONGENITE	1122.5	1415.0	66.9	74.1	1565.0	1950.0	94.0	100.8
-R00-R99 CONDIZ. MORB. MAL DEFINITE	1200.0	2110.0	71.6	110.5	562.5	917.5	33.8	47.4
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	11577.5	17217.5	690.4	901.8	2655.0	4030.0	159.4	208.4
--V01-V99 Acc. mezzi trasporto	6417.5	8875.0	382.7	464.8	1277.5	1837.5	76.7	95.0
--W00-W19 Cadute	702.5	1247.5	41.9	65.3	30.0	97.5	1.8	5.0
--X40-X49 Avvel. acc. sost. nocive	82.5	122.5	4.9	6.4	0.0	2.5	0.0	0.1
--X60-X84 Suicidi	3010.0	4710.0	179.5	246.7	770.0	1192.5	46.2	61.7
--X85-Y09 Omicidi	195.0	262.5	11.6	13.7	137.5	210.0	8.3	10.9

TREND TEMPORALI DI MORTALITÀ IN UMBRIA, 1994-2008.

Tabella 21. Rischi cumulativi di mortalità nella regione dell'Umbria. 2004-2008.

ICD10	MASCHI			FEMMINE		
	0-74(e.s.)	0-64(e.s.)	55-74(e.s.)	0-74(e.s.)	0-64(e.s.)	55-74(e.s.)
A00-Y99 TUTTE LE CAUSE	271.9 (3.6)	120.4 (2.2)	231.8 (3.3)	147.7 (2.4)	64.2 (1.6)	123.1 (2.2)
-A00-B99 MAL. INFETTIVE E PARASSITARIE	4.4 (0.4)	2.1 (0.3)	3.0 (0.4)	2.6 (0.3)	1.3 (0.2)	1.8 (0.3)
--B15-B19 Epatiti virali	1.7 (0.3)	0.8 (0.2)	1.1 (0.2)	0.9 (0.2)	0.2 (0.1)	0.9 (0.2)
--B24 AIDS	0.5 (0.1)	0.4 (0.1)	0.2 (0.1)	0.3 (0.1)	0.3 (0.1)	0.0 (0.0)
-C00-D48 TUMORI	134.8 (2.5)	52.6 (1.4)	120.6 (2.3)	81.4 (1.8)	37.1 (1.2)	68.5 (1.6)
--C00-C97 Tumori maligni	133.8 (2.4)	52.4 (1.4)	119.6 (2.3)	81.0 (1.8)	36.9 (1.2)	68.0 (1.6)
---C01-C06;C10-C13 Cav. orale e faringe	2.2 (0.3)	1.3 (0.2)	1.7 (0.3)	0.5 (0.1)	0.2 (0.1)	0.4 (0.1)
---C15-C26 Apparato digerente	52.4 (1.5)	18.7 (0.8)	47.3 (1.4)	27.2 (1.0)	10.3 (0.6)	24.1 (1.0)
----C16 Stomaco	13.6 (0.8)	4.1 (0.4)	12.3 (0.7)	5.5 (0.4)	1.8 (0.3)	4.8 (0.4)
----C18-C21 Colon retto	17.4 (0.9)	6.4 (0.5)	16.0 (0.8)	9.8 (0.6)	4.4 (0.4)	8.4 (0.6)
---C30-C39 App. respiratorio	41.4 (1.3)	15.7 (0.8)	37.5 (1.3)	10.2 (0.6)	4.9 (0.4)	8.5 (0.6)
---C40-C49 Ossa connett. pelle	5.1 (0.5)	2.6 (0.3)	3.7 (0.4)	3.4 (0.4)	1.9 (0.3)	2.5 (0.3)
---C50 Mammella	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	16.3 (0.8)	9.8 (0.6)	12.4 (0.7)
---C51-C63 Apparato genitale	6.4 (0.5)	1.4 (0.2)	6.2 (0.5)	9.2 (0.6)	4.3 (0.4)	7.7 (0.5)
---C64-C68 Apparato urinario	9.4 (0.6)	3.2 (0.4)	8.8 (0.6)	2.3 (0.3)	0.8 (0.2)	2.0 (0.3)
---C69-C80 Altre sedi	10.1 (0.6)	4.9 (0.4)	8.0 (0.6)	5.9 (0.5)	2.4 (0.3)	5.1 (0.4)
---C81-C90 Linfomi e mielomi	6.3 (0.5)	2.8 (0.3)	5.2 (0.5)	5.1 (0.4)	1.6 (0.2)	4.5 (0.4)
---C91-C96 Leucemie	6.4 (0.5)	2.2 (0.3)	5.6 (0.5)	3.4 (0.4)	1.2 (0.2)	2.9 (0.3)
-D50-D89 MAL. SANGUE ORG. EMATO	1.3 (0.2)	0.5 (0.1)	1.0 (0.2)	0.8 (0.2)	0.5 (0.1)	0.6 (0.1)
-E00-E90 MAL. ghiandole endocrine	6.5 (0.5)	2.6 (0.3)	5.7 (0.5)	2.8 (0.3)	1.0 (0.2)	2.4 (0.3)
--E10-E14 Diabete	5.5 (0.5)	1.9 (0.3)	5.1 (0.5)	1.9 (0.3)	0.4 (0.1)	1.8 (0.3)
-F00-F99 DISTURBI PSICHICI	4.3 (0.4)	3.0 (0.3)	1.7 (0.3)	1.0 (0.2)	0.4 (0.1)	0.6 (0.2)
-G00-G99 MAL. SISTEMA NERVOSO	7.1 (0.6)	2.7 (0.3)	5.7 (0.5)	5.4 (0.4)	2.0 (0.3)	4.5 (0.4)
--G20 Morbo di Parkinson	1.0 (0.2)	0.0 (0.0)	1.0 (0.2)	0.6 (0.2)	0.0 (0.0)	0.6 (0.2)
-I00-I99 MAL. SIST. CIRCOLATORIO	83.0 (1.9)	30.4 (1.1)	74.0 (1.8)	35.1 (1.2)	10.0 (0.6)	32.2 (1.1)
--I05-I09 Cardiopatie reum. cro.	0.9 (0.2)	0.2 (0.1)	0.8 (0.2)	0.9 (0.2)	0.3 (0.1)	0.8 (0.2)
--I10-I15 Malattia ipertensiva	5.3 (0.5)	2.3 (0.3)	4.8 (0.4)	2.9 (0.3)	0.6 (0.1)	2.8 (0.3)
--I20-I25 Mal. ischemiche cuore	37.2 (1.3)	13.9 (0.7)	33.6 (1.2)	12.1 (0.7)	3.5 (0.4)	11.2 (0.7)
---I21 Infarto miocardio acuto	25.0 (1.0)	10.7 (0.6)	22.0 (1.0)	7.8 (0.5)	2.7 (0.3)	7.0 (0.5)
--I26-I28 Mal. circolo polmonare	1.2 (0.2)	0.2 (0.1)	1.1 (0.2)	0.9 (0.2)	0.3 (0.1)	0.7 (0.2)
--I30-I52 Altre mal. del cuore	15.4 (0.8)	6.9 (0.5)	12.2 (0.7)	6.5 (0.5)	2.0 (0.3)	5.6 (0.5)
--I60-I69 Dist. circol. encefalo	19.4 (0.9)	5.6 (0.5)	17.9 (0.9)	10.1 (0.6)	2.6 (0.3)	9.4 (0.6)
---I61 Emorragia intracerebrale	6.8 (0.5)	2.2 (0.3)	6.0 (0.5)	3.4 (0.4)	1.4 (0.2)	3.1 (0.3)
---I63-I65 Occlus. arter. cerebrali	7.2 (0.6)	1.8 (0.3)	6.9 (0.5)	3.6 (0.4)	0.4 (0.1)	3.6 (0.4)
--I70-I79 Mal. arterie arteriole	4.9 (0.5)	1.1 (0.2)	4.7 (0.4)	1.4 (0.2)	0.4 (0.1)	1.3 (0.2)
---I70 Arteriosclerosi	1.1 (0.2)	0.1 (0.1)	1.1 (0.2)	0.7 (0.2)	0.1 (0.1)	0.6 (0.2)
-J00-J99 MAL. APP. RESPIRATORIO	14.7 (0.8)	3.6 (0.4)	13.3 (0.8)	7.0 (0.5)	2.2 (0.3)	6.1 (0.5)
--J10-J18 Polmonite e influenza	3.4 (0.4)	0.9 (0.2)	3.1 (0.4)	1.7 (0.3)	0.6 (0.1)	1.3 (0.2)
--J40-J47 Malattie cron. respirat.	6.5 (0.5)	0.9 (0.2)	6.3 (0.5)	2.4 (0.3)	0.5 (0.1)	2.2 (0.3)
--J60-J70 Mal. polm. agenti esterni	0.4 (0.1)	0.0 (0.0)	0.4 (0.1)	0.1 (0.1)	0.0 (0.0)	0.1 (0.1)
-K00-K93 MAL. APP. DIGERENTE	12.0 (0.7)	5.1 (0.4)	10.2 (0.7)	5.0 (0.4)	1.7 (0.2)	4.2 (0.4)
--K20-K31 Mal. esof. stomaco duodeno	0.5 (0.1)	0.2 (0.1)	0.5 (0.1)	0.3 (0.1)	0.0 (0.0)	0.2 (0.1)
--K55-K63 Altre mal. intestinali	1.6 (0.3)	0.4 (0.1)	1.4 (0.3)	0.9 (0.2)	0.2 (0.1)	0.8 (0.2)
--K70-K93 Altre mal. app. digerente	9.2 (0.6)	4.2 (0.4)	7.7 (0.6)	3.3 (0.4)	1.3 (0.2)	2.7 (0.3)
---K70-K77 Mal. del fegato	7.6 (0.6)	3.7 (0.4)	6.4 (0.5)	2.5 (0.3)	0.9 (0.2)	2.0 (0.3)
----K74 Fibrosi e cirrosi epatica	4.6 (0.4)	2.0 (0.3)	3.9 (0.4)	1.5 (0.2)	0.5 (0.1)	1.3 (0.2)
-M00-M99 MAL. SIST. OSTEO MUSCOLARE	0.7 (0.2)	0.3 (0.1)	0.6 (0.2)	1.1 (0.2)	0.4 (0.1)	0.9 (0.2)
-N00-N99 MAL. APP. GENITOURINARIO	3.0 (0.4)	0.6 (0.2)	2.8 (0.3)	1.6 (0.2)	0.5 (0.1)	1.6 (0.2)
--N00-N29 Nefrite e al. mal. renali	2.9 (0.4)	0.6 (0.2)	2.7 (0.3)	1.6 (0.2)	0.5 (0.1)	1.5 (0.2)
-O00-O99 COMPLIC. GRAVID. PARTO	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
-P00-P96 CONDIZ. MORB. PERINATALI	1.3 (0.3)	1.3 (0.3)	0.0 (0.0)	1.7 (0.3)	1.7 (0.3)	0.0 (0.0)
-Q00-Q99 MALFORMAZIONI CONGENITE	1.3 (0.2)	1.3 (0.2)	0.2 (0.1)	1.8 (0.3)	1.7 (0.3)	0.5 (0.1)
-R00-R99 CONDIZ. MORB. MAL DEFINITE	4.1 (0.4)	2.6 (0.3)	2.7 (0.3)	1.7 (0.2)	1.0 (0.2)	1.1 (0.2)
-V01-Y99 TRAUMATISMI E AVVELENAMENTI	24.4 (1.0)	17.7 (0.8)	11.1 (0.7)	6.5 (0.5)	4.2 (0.4)	3.5 (0.4)
--V01-V99 Acc. mezzi trasporto	9.7 (0.6)	8.4 (0.6)	2.6 (0.3)	2.7 (0.3)	1.8 (0.3)	1.2 (0.2)
--W00-W19 Cadute	2.7 (0.3)	1.5 (0.2)	1.9 (0.3)	0.5 (0.1)	0.1 (0.1)	0.5 (0.1)
--X40-X49 Avvel. acc. sost. nocive	0.2 (0.1)	0.1 (0.1)	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
--X60-X84 Suicidi	7.6 (0.5)	5.2 (0.4)	3.8 (0.4)	1.7 (0.2)	1.2 (0.2)	0.8 (0.2)
--X85-Y09 Omicidi	0.3 (0.1)	0.2 (0.1)	0.0 (0.0)	0.3 (0.1)	0.2 (0.1)	0.1 (0.1)

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Research article

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Cancer incidence in men: a cluster analysis of spatial patterns

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Abstract

Background: Spatial clustering of different diseases has received much less attention than single disease mapping. Besides chance or artifact, clustering of different cancers in a given area may depend on exposure to a shared risk factor or to multiple correlated factors (e.g. cigarette smoking and obesity in a deprived area). Models developed so far to investigate co-occurrence of diseases are not well-suited for analyzing many cancers simultaneously. In this paper we propose a simple two-step exploratory method for screening clusters of different cancers in a population.

Methods: Cancer incidence data were derived from the regional cancer registry of Umbria, Italy. A cluster analysis was performed on smoothed and non-smoothed standardized incidence ratios (SIRs) of the 13 most frequent cancers in males. The Besag, York and Mollie model (BYM) and Poisson kriging were used to produce smoothed SIRs.

Results: Cluster analysis on non-smoothed SIRs was poorly informative in terms of clustering of different cancers, as only larynx and oral cavity were grouped, and of characteristic patterns of cancer incidence in specific geographical areas. On the other hand BYM and Poisson kriging gave similar results, showing cancers of the oral cavity, larynx, esophagus, stomach and liver formed a main cluster. Lung and urinary bladder cancers clustered together but not with the cancers mentioned above. Both methods, particularly the BYM model, identified distinct geographic clusters of adjacent areas.

Conclusion: As in single disease mapping, non-smoothed SIRs do not provide reliable estimates of cancer risks because of small area variability. The BYM model produces smooth risk surfaces which, when entered into a cluster analysis, identify well-defined geographical clusters of adjacent areas. It probably enhances or amplifies the signal arising from exposure of more areas (statistical units) to shared risk factors that are associated with different cancers. In Umbria the main clusters were characterized by high risks for cancers with alcohol and tobacco both as risk factors. Tobacco-only related cancers formed a separate cluster to the alcohol- and tobacco-related sites. Joint spatial analysis or investigation of hypothesized exposures might be used for further investigation into interesting geographical clusters.

Background

Umbria is a small region in Central Italy with a population of about 850,000. Well-defined high risk areas exist for some cancer sites (e.g. gastric cancer and upper aerodigestive cancer) in the northern and eastern parts of the region. A descriptive study of cancer incidence and mortality by municipality was conducted using data from the regional population cancer registry (RTUP) and from the regional nominative cause of death registry (ReNCaM) [1,2]. Since cancer data were aggregated at the municipal level, variability due to small areas hampered interpretation of observed SIRs in terms of underlying local cancer risks [3]. Thus the widely used Besag, York, and Mollie spatial analysis method was adopted to produce regional maps by gender and cancer site [4]. These studies provided evidence of marked intra-regional variability in cancer distribution but did not analyze the incidence of diverse cancers simultaneously.

Although recent methods for joint disease mapping were first developed to investigate co-occurrence of two events [5-7], and then extended to more than two events [8], these models are still not well-suited for analyzing many cancers simultaneously. Cluster analysis includes several exploratory techniques that were developed to identify data grouping and to generate hypotheses. It is distinct from spatial analysis methods which investigate "unusual" disease clusters (i.e. events concentrated in time or space that are unlikely to be due to chance alone). In the study of geographical disease distribution cluster analysis is infrequently used, [9] although it is more descriptive than joint spatial modeling, and characterizes local areas where shared factor(s) generate(s) a cluster of cancers. As it is exploratory and quickly identifies latent spatial fields, it may be considered a screening tool for identifying candidate cancer sites that should be included in a joint disease mapping analysis.

In this paper we propose a simple two-step approach that is based on a cluster analysis of municipal SIRs for exploring the pattern of cancer incidence in-depth in sub-regional areas and for establishing correlations among risks of different cancers.

Methods

Incidence data for the period 1999 to 2003 were obtained from the Umbrian Population Cancer Registry. Population data were provided by the national institute of statistics (ISTAT). In Umbria, 399,162 residents constituted the male population in 2001. Cases were collected, coded, registered and analyzed in accordance with the standard recommended methods for cancer registries [10]. Incidence was coded according to the Tenth International Classification of Diseases (ICDX) [11]. In the Umbrian male population the most common solid cancer sites

were the oral cavity and pharynx (C01-C06, C09-C14 ICDX), esophagus (C15 ICDX), stomach (C16), colon-rectum (C18-C21), liver (C22), pancreas (C25), larynx (C32), lung (C33-C34), skin melanoma (C43), prostate (C61), kidney (C63), urinary bladder (C67) and thyroid gland (C73). All bladder cancers were considered malignant if not reported as non-infiltrating.

Standardized incidence ratios by municipality were calculated using the indirect method, with the regional number of cases in the study time-frame as standard [12].

To estimate smoothed SIRs we fitted two different models: the Besag, York e Mollie (1991) [4], which is commonly used in epidemiological studies and which can be implemented using public domain software, and Poisson kriging [13].

The BYM model

O_i represents the observed number of cancer cases and E_i the expected number, calculated using the indirect method in the i th municipality. We assumed that observed cases O_i are Poisson distributed with the mean depending, through a logarithmic link function, on the expected cases E_i and on a spatially auto-correlated random effect, that is:

$$O_i \sim \text{Poisson}(\mu_i)$$

$$\log(\mu_i) = \log(E_i) + \beta_0 + \varphi_i$$

where μ_i is the mean of the Poisson distribution, β_0 is a constant representing the intercept of the (log) relative risk in Umbria, and φ_i is a spatially auto-correlated random effect capturing the residual relative risk in the i th municipality which the intercept does not cover. For the random effects, φ_i , we assumed an intrinsic conditional autoregressive (CAR) model [4]; random spatial effects follow a multivariate normal distribution and the conditional mean of each φ_i is the weighted sum of the other φ_i s. We specified the following 'vague' prior distributions for the other parameters in the model: Gaussian distribution for the intercept parameter β_0 with mean 0 and precision parameter equal to $1.0E-5$; and gamma distribution for the precision parameter of the CAR model with r equal to $1.0E-1$ and μ equal to $1.0E-1$.

For each cancer site, the BYM was fitted using WinBUGS version 1.41, a standard public domain package for Bayesian inference using Markov Chain Monte Carlo (MCMC) methods.

To assess dependency of clustering on the smoothing technique, we considered the following ATA (area-to-area) Poisson kriging model.

Poisson kriging model

The risk over a given municipality is a linear combination of the target municipality and the neighboring municipalities.

$$\hat{r}_{PK}(v_\alpha) = \sum_{i=1}^K \lambda_i(v_\alpha) z(v_i)$$

where the weights $\lambda_i(v_\alpha)$ were calculated according to the formula reported in [13].

We assumed that all municipalities have similar shapes and sizes, with a uniform population density. Each municipality was represented by its centroid $u_\alpha = (x_\alpha, y_\alpha)$.

We also assumed that the number of registered deaths $d(v_\alpha)$ was a random variable following a Poisson distribution with one parameter given by the population size multiplied by local risk. The Poisson kriging model was fitted using the public domain software "poisson-kriging.exe" described in [13].

Both the non-smoothed SIRs and the SIRs that were smoothed from different models were entered into the cluster analysis. The un-weighted pair group method with arithmetic averages (UPGMA) was adopted. It is one of the most frequently used cluster analysis methods [14,15]. The "r" Bravais-Pearson correlation coefficients was the similarity index. The 92 Umbrian municipalities were first considered as operational taxonomy units (OTUs) and the SIRs of thirteen cancer sites as observations; then the cancer sites were considered as OTUs and the SIRs of municipalities as observations.

Results

Cluster analysis of non-smoothed SIRs showed only oral cavity and larynx cancers clustered at $r = 0.8$. No clear clustering emerged among municipalities as the clustering level was very low (highest $r = 0.4$) and distant areas often clustered together.

The dendrogram in Figure 1 illustrates clustering of the thirteen cancer sites by SIR distribution in the 92 Umbrian municipalities, as obtained from Poisson kriging and BYM modeling respectively.

BYM derived SIRs

Most marked aggregation involved the sites related to the upper aero-digestive tract and liver. A strong correlation emerged between lung and urinary bladder cancer sites.

Figure 2 shows the geographical distribution of Umbrian municipalities aggregated in eight clusters at the $r = 0.5$ level, resulting from cluster analysis of BYM smoothed

SIRs. Only four municipalities were unclustered, the other 88 clustered in well-defined geographical areas.

Cluster 1: (north-east Umbria), included a high incidence of oral cavity and pharynx, larynx, esophagus and liver cancers and low SIRs for lung, melanoma, urinary bladder and thyroid cancers (table 1).

Cluster 2: (north-west): all sites presented a SIR over 100, excluding kidney (98.95) and thyroid (94.25). Cluster 3, which includes Perugia, regional capital and largest town in Umbria, showed the majority of SIRs fell between 95 and 105. Only thyroid cancer was over 100 while esophagus, pancreas and colorectal cancer were lower.

Cluster 4: (south-west with seven villages), showed SIR values were distributed in a reverse pattern to the north-east cluster. Only the thyroid cancer SIR was quite high (111.20).

Cluster 5: (south-central) included the town of Terni and nineteen other municipalities. The upper aero-digestive tract and prostate cancers presented low SIR values.

Cluster 6: (eastern mountainous zone with 10 small villages) presented low SIR values for prostate, melanoma, oral cavity and pharyngeal cancers. Values were high for esophagus, pancreas and kidney cancers.

Cluster 7: (south-west) presented a high SIR for thyroid cancer and low SIRs for oral cavity and pharynx, stomach, larynx and pancreas cancers and skin melanoma.

Cluster 8 (west, around Lake Trasimeno) showed high SIRs for liver cancer and skin melanoma and low values for lung and urinary bladder cancers.

Clustering of municipalities was similar in the Poisson kriging and BYM models. In the Poisson kriging model the north-western, north-eastern and south-eastern clusters clearly emerged as in the BYM model but the clustering level was lower and clusters frequently contain non-neighbouring municipalities.

Poisson kriging

Similar clustering by cancer site was observed in the geostatistical model with weaker correlations.

Figure 3 shows a significant correlation between the SIRs for larynx and oral cavity cancers and pharynx cancers but not between larynx and lung cancers.

Discussion

Joint analysis of cancer incidence is mainly concerned with generating and corroborating hypotheses on expo-

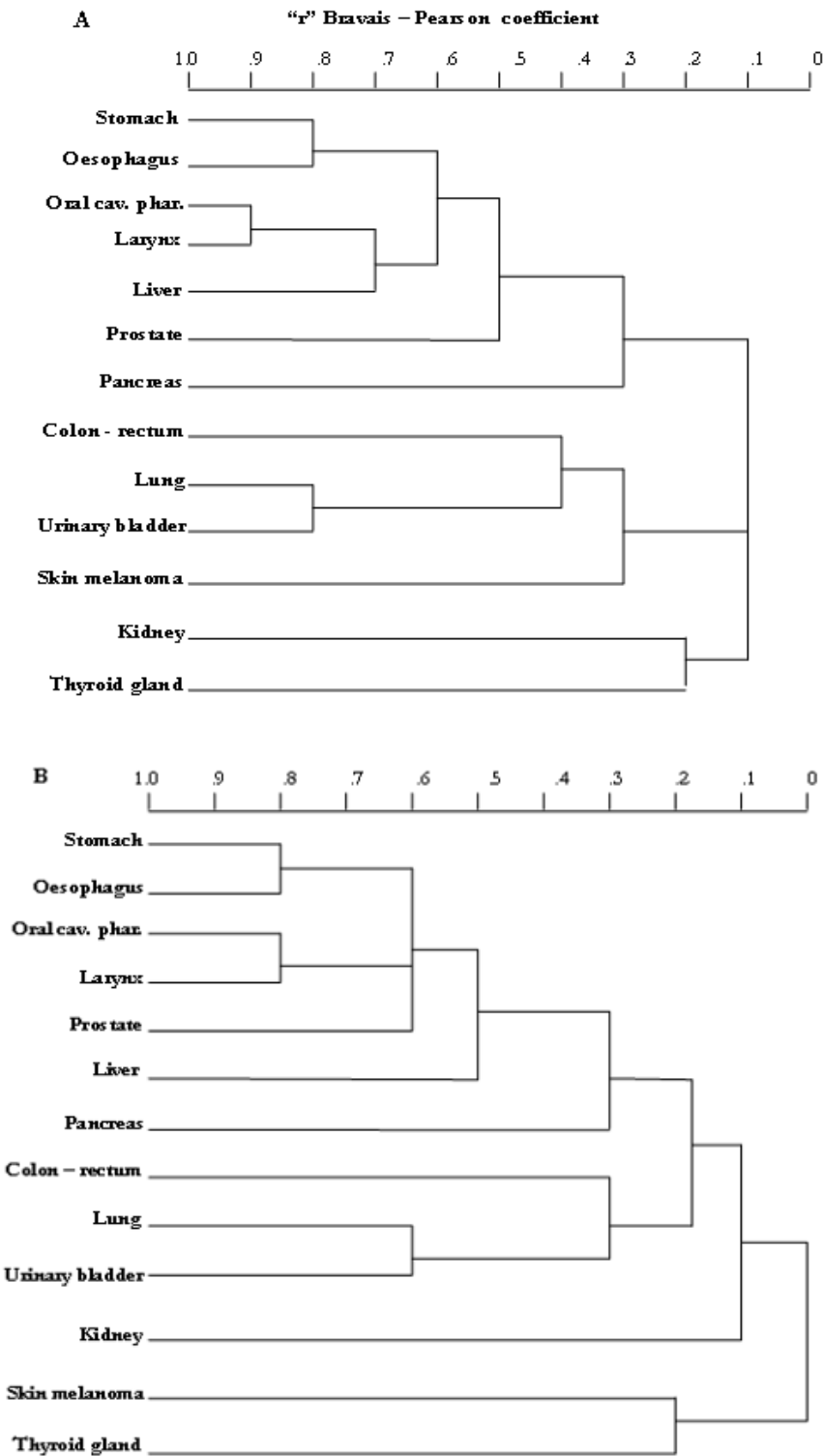


Figure 1
Dendrogram showing the relationships among the thirteen cancer sites based on BYM modeling (upper) and Poisson kriging (bottom) respectively.

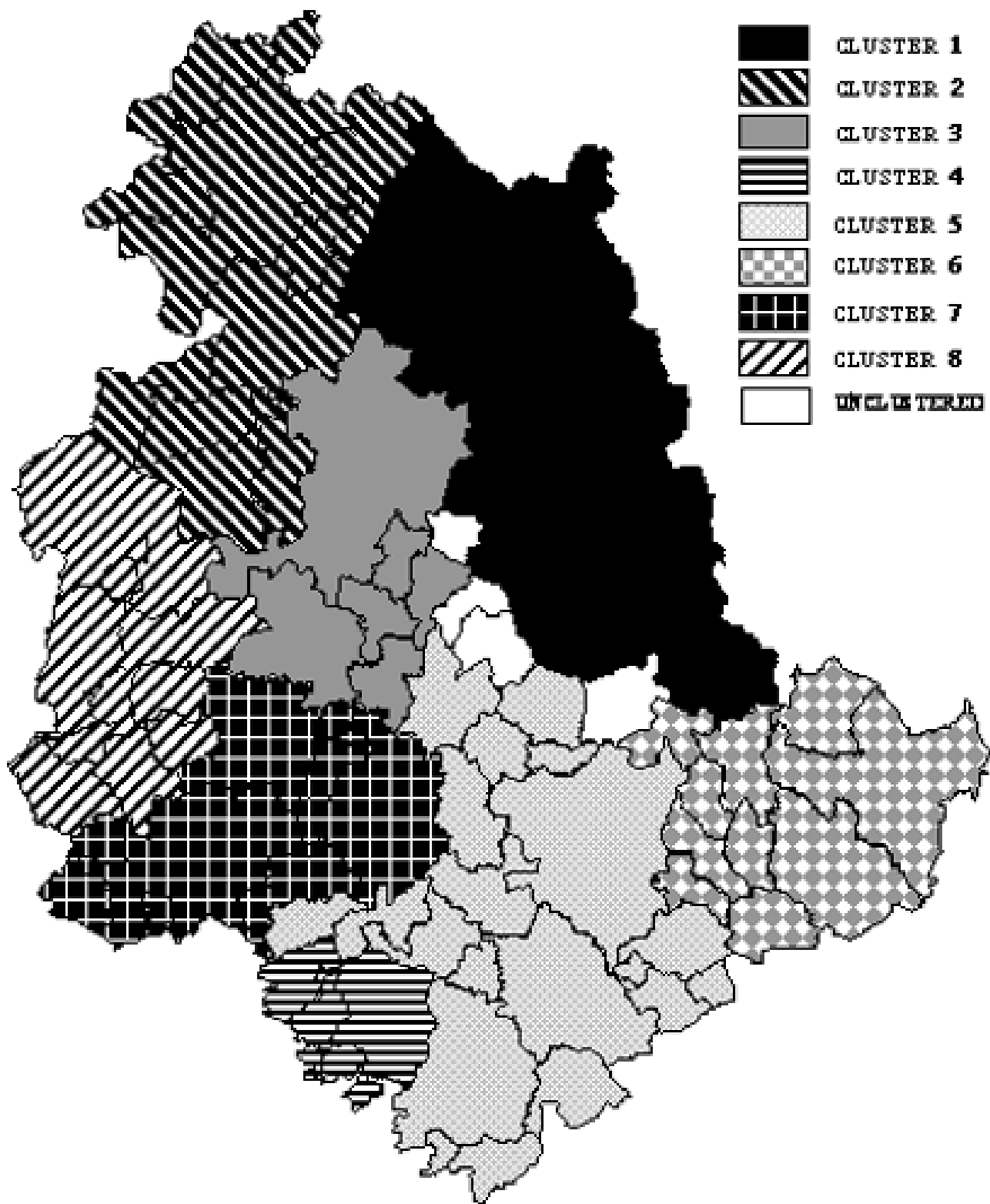


Figure 2
Clustering of the regional municipalities based on risk of different cancers.

Table 1: Mean smoothed SIRs (BYM model) by cancer sites in eight clusters of regional municipalities.

Site	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7	Cluster 8
Stomach	99.16	157.50	96.65	89.30	85.35	101.60	91.77	96.11
Esophagus	112.50	155.73	89.20	68.02	79.03	119.05	111.75	103.28
Oral cav. phar.	125.34	121.21	97.79	91.95	80.47	91.04	82.28	95.89
Larynx	114.65	109.74	101.40	103.35	89.90	99.43	89.89	96.71
Liver	106.00	113.16	104.88	104.72	93.98	97.54	96.62	108.91
Prostate	100.26	111.87	101.40	99.33	90.47	87.64	99.82	97.33
Pancreas	102.97	110.38	87.42	104.91	96.83	110.23	91.74	103.23
Colon-rectum	96.69	101.65	93.57	93.26	100.73	106.51	100.61	101.83
Lung	88.46	111.93	102.56	89.23	101.16	99.81	103.40	92.10
Urinary bladder	94.23	108.00	96.15	85.37	100.58	101.05	99.08	91.09
Skin melanoma	85.57	106.39	99.92	89.89	102.37	88.98	92.82	106.65
Kidney	104.42	98.95	98.16	92.26	102.60	109.22	102.74	98.29
Thyroid gland	94.30	94.25	106.20	111.20	106.99	100.53	116.37	102.42

tures [8]. The fingerprint of a given exposure may be clustering of cancers sharing a common risk factor. Clustering may also depend on exposure to a proximal factor such as socioeconomic status associated with risk factor distribution for different cancers, chance or artifact.

In this paper, we propose a two-step method (SIR calculation followed by cluster analysis) for exploring cancer site clusters and for characterizing risk patterns in sub-regional areas. To ascertain the best method for cluster detection we compared non-smoothed SIRs, BYM, and Poisson kriging smoothed SIRs.

Cluster analysis of non-smoothed SIRs was almost non-informative because only closely correlated cancer sites, e.g. larynx and oral cavity, clustered together. No geographical clusters emerged from the analysis of municipalities probably because of small area variability, which causes misleading mapping even when a single cancer is considered [16], and reduces correlations among cancer sites. The effect of small area variability is much more marked when similarities are sought concomitantly in the incidence patterns of many cancers rather than when a single disease is of interest.

The much more informative BYM and geostatistical models yields similar results. BYM smoothing produced more homogeneous geographical areas than Poisson kriging, confirming it yielded smoother risk surfaces [17]. Since the SIRs for each cancer site were modeled using vague priors, and independently of other sites, identified clusters seem unlikely to be artifacts consequent to modeling assumptions. As BYM appears to enhance or even amplify the signal from composite areas with increased/decreased risk for a given cancer, it seems best suited for investigating patterns of co-occurrence of different cancers. On the other hand, Poisson kriging may be more suitable for

identifying localized single disease clusters i.e. a single area with unusual rates that are hidden in the BYM model (false negatives).

If we look at the BYM results of geographical clustering, the most interesting findings emerged from Clusters 1, 2 and 8. Municipalities in cluster 2 (north-west Umbria) stand out for clusters of stomach and esophagus cancers, followed by oral cavity and pharynx, liver, prostate, pancreas and lung cancers. Only kidney and thyroid cancers showed SIRs which were just below 100 in this cluster. At the beginning of the 1980s, a very high incidence of gastric cancer which was mainly related to dietary factors [18,19], and approached Japanese rates [20], was observed in this area of Umbria. In fact, it is part of a known high risk area in central Italy that includes the provinces of Forlì in the Romagna region, Arezzo in Tuscany and Pesaro in the Marches. Umbrian municipalities in cluster 1 also had high rates of cancer sites linked to joint consumption of alcohol and tobacco. A recent survey of the four local health districts in the Umbria Region reported a significantly higher prevalence of binge drinkers in district n.1, which includes municipalities in clusters 1–2 [21]. SIRs for gastric cancer, although high, were lower than in cluster 2.

The high incidence of skin melanoma in the municipalities around Lake Trasimeno (cluster 8) could be related to intermittent sun exposure during the summer rather than to widespread opportunistic screening.

In the present analysis, the main cluster of cancer sites included the oral cavity and pharynx, larynx, esophagus, liver, and stomach ($r = 0.6$), most of which are related to the synergistic effect of alcohol and tobacco consumption [22]. Although alcohol consumption alone was not significantly associated with the risk of gastric cancer [23],

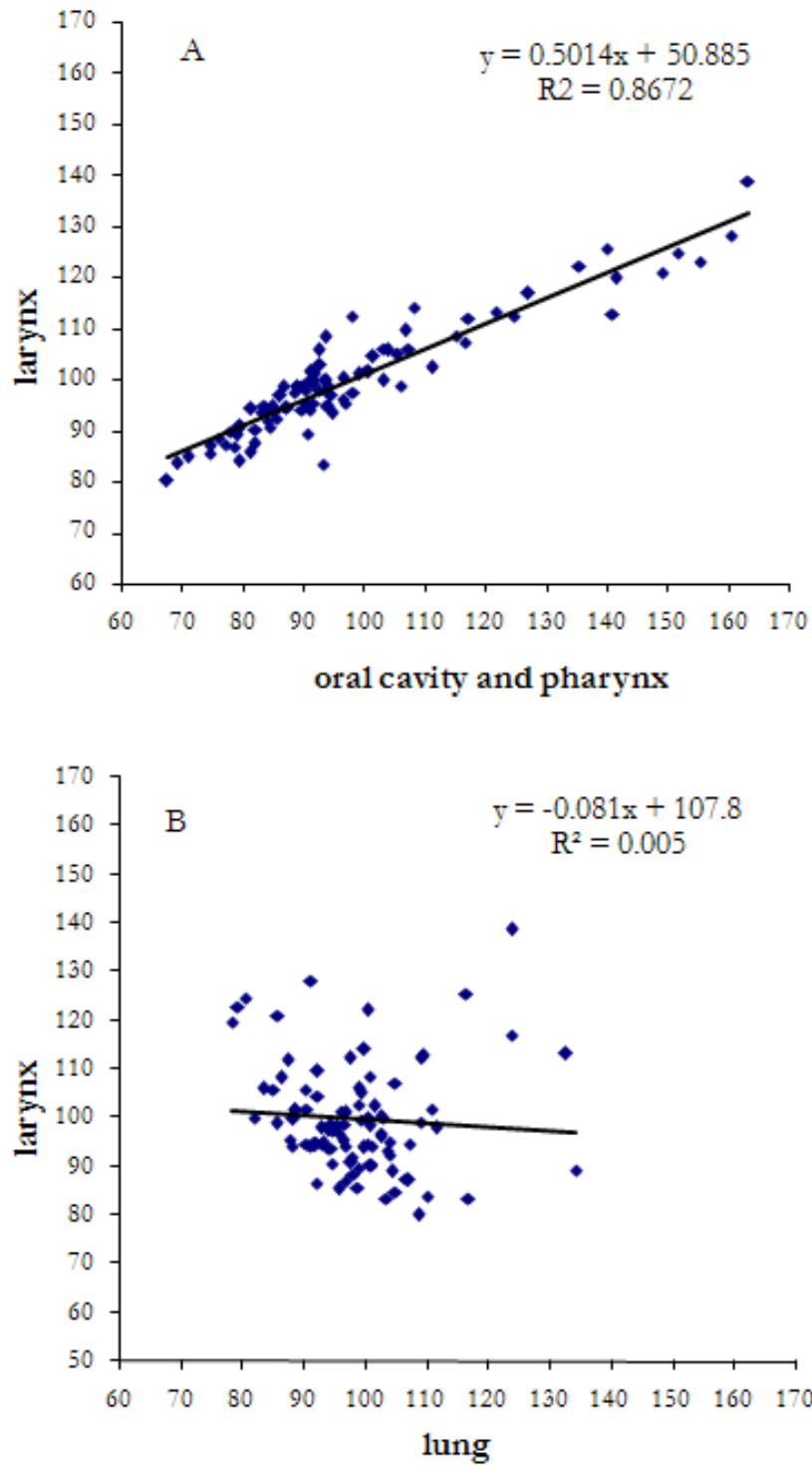


Figure 3
Correlation between smoothed larynx cancer SIRs (BYM model) and those of the oral cavity and pharynx (upper), and lung (bottom) respectively.

present results are divergent as they show a strong association of gastric cancer with alcohol-related sites, particularly with the esophagus ($r = 0.8$). Clustering of gastric and esophageal cancer may also reflect an association between esophagus adenocarcinoma and gastric cardia cancer, which was reported to be independent of *Helicobacter pylori* infection [18,24]. Cancer of the liver was less strongly correlated and, in fact, tobacco and alcohol were reported to act as independent risk factors in liver cancer [25].

Another finding which emerged from the present analysis was a weak ($r = 0.5$) association of alcohol-related sites with prostate cancer. As the incidence of prostate cancer is largely influenced by local use of opportunistic screening [26], co-occurrence of high rates of prostate cancer and alcohol-related sites without shared risk factors may be hypothesized. In fact, in a case-control study Chang et al. detected no association between recent alcohol consumption and risk of advanced, sporadic, or familial prostate cancer, but found a positive borderline association with localized disease [27].

Lung cancer, the most important tobacco-related site, clustered with urinary bladder cancer but was very distant ($r = 0.1$) from the main cluster. The occurrence of larynx cancer was strictly related to head and neck, but not with lung cancer (figure 3). Moreover, some municipalities' clusters were characterized by high SIRs of larynx cancer and low SIRs of lung cancer, and vice versa. A low spatial correlation between lung cancer and tobacco- and alcohol-related cancer sites was reported by Knorr-Held et al. using joint spatial analysis [8].

Conclusion

In conclusion, results in terms of exposures should be interpreted with caution as the hypotheses this study generated require further confirmation. Furthermore, one limitation of our study may lie in our choice of average linkage clustering from among the many cluster analysis techniques that are currently available. The UPGMA method, although one of the most widely used, depends on the initial cut, i.e. on the selection of the first cluster, and may sometimes yield suboptimal clustering results for a given dataset [28]. Ongoing research is assessing the roles of the clustering method and CAR modeling assumptions (e.g. assuming different priors) in determining geographical cluster formation.

Despite this, results are in good agreement with local data on risk factors and other reports. The present application to cancer incidence in an Italian region produced evidence of separate clustering among alcohol- and tobacco-related cancers and yielded interesting patterns of cancer incidence. Our simple two-step method for screening clusters

of different cancer sites may prove to be a useful addition to single disease mapping and joint spatial analysis, to be used when grouping many diseases.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

TC drafted the manuscript. FLR conceived the idea and study design and contributed to statistical analyses. DD acquired and revised data. LR carried out statistical analyses. FS interpreted data and critically revised the manuscript.

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