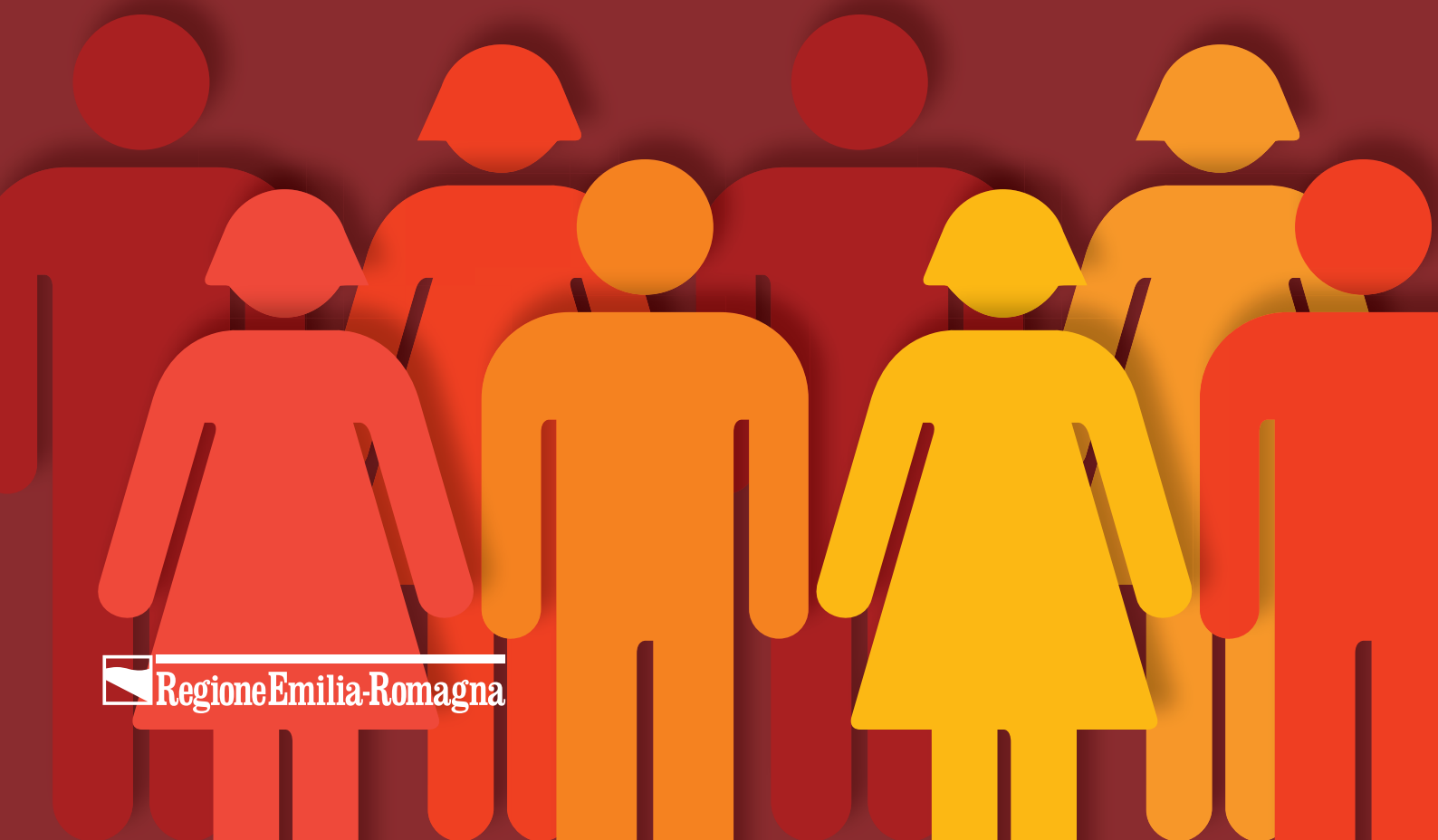
SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

The Emilia-Romagna Regional Health Service and the new welfare system

Facilities, expenditure, and activities as of 31.12.2010
Programs, agreements and organisational models



Regione Emilia-Romagna

CONTENTS

The Emilia-Romagna Regional Health Service (RHS): results as of 31st December 2010 and commitments

The Regional Health Service (RHS), even during a period of economic crisis and funding difficulties, continues to pursue improvements in the planning and organisation of services, based on a guiding principle which focuses on the individual and on that individual's needs. This aspect is also stressed in the resolution on Health Service planning and funding for 2011 (resolution of Emilia-Romagna Regional Government 732/2011) which states that this principle is "the ability to pursue objectives and results which are measurable due to their ability to improve the services provided, and therefore affect an individual's quality of life, combining policies and services, and using financial resources to their best".

Results as of 31st December 2010

The overall results obtained in 2010 were good, both in terms of services provided to citizens and in financial terms. As widely illustrated in the following pages, services registered increases and improvements against a 2010 financial year which broke even again upon its closure.

The resident population increased, confirming a trend which started during the second half of the Nineties, with a total of 4,432,439 residents (more women than men, 2,281,302 and 2,151,137 respectively). This is due to the continuous increase in the number of new citizens (foreigners who have come to live in Emilia-Romagna), an increase in births (28% of which can be attributed to foreign mothers), the growth of the elderly population, and the inclusion of 7 municipalities of Alta Valmarecchia in Emilia-Romagna, formerly belonging to Marche Region (in 2009).

The number of employees in the Regional Health Service increased compared with 2009. As of 31st December 2010 there were 62,527 employees (62,181 in 2009); the number of contracting general practice physicians (3,176) and contracting paediatricians (602) within the Regional Health Service remained stable with small fluctuations, as in the past years.

Total expenditure in 2010 was 8.431 billion Euros (8.248 billion in 2009), with per capita expenditure of 1,902 Euros (1,876 in 2009). Health District healthcare continued to absorb the greatest amount of resources: 53.92% of the total. The positive balance of the healthcare mobility fund was 343.93 million, slightly lower than in 2009 (354.18 million). Payment periods for suppliers of goods and services were 266 days on average (255 in 2009), less than national average timescales (278 days). Expenditure for the Regional Fund for non self-sufficient people continued to be very significant at 468.1 million Euros, with an increase of 8.9 million compared with 2009.

Community pharmaceutical expenditure increased by 0.7% compared with 2009 (when it had increased by 1.6% compared with 2008). Hospital pharmaceutical expenditure increased by 6.2% showing a more contained increase with respect to 2009 over 2008 (+10.2%). Per capita pharmaceutical expenditure continued to be lower than the national figure: 215.10 Euros in Italy, 179.40 Euros in Emilia-Romagna. Expenditure for generic medicines has been gradually increasing year after year, rising from 15% in 2005 to 37% of Regional Health Service-funded expenditure in 2010.

Investment in social-health and healthcare facilities amounted to 2.462 billion Euros (1991-2010 period), and enabled new construction works and renovations, in addition to operational and legislative adaptations of the hospital network and facilities throughout the regional territory.

Of these 2.462 billion Euros, 368.255 million concerned the regional investment program, which focuses attention on technological modernisation (more than 25% resources).

The number of public and accredited private beds remained stable – 19,606 in 2010, 3.58 per 1,000 inhabitants for acute cases, 0.88 for long-stay and rehabilitation. The attraction index from outside the region (i.e. people from other regions coming to Emilia-Romagna to be treated) was equal to that registered in 2009 at 13.8%.

Waiting times for planned operations in cardiology, vascular and ophthalmology departments were in line with targets; waiting times for hip replacements improved but have not yet met targets; surgical interventions in oncology departments have not yet registered homogeneous performance levels.

Visits to Emergency Rooms have been substantial and have remained basically stable over the last three years at 1,826,192. Specialist outpatient services (tests and examinations) in 2010 amounted to 76,008,277 (74,132,584 in 2009).

Activity in the 219 Family advisory health centres increased – the number of users (484,805 in 2010, +4.3% on 2009) and services (1,002,106 in 2010, +6% on 2009) increased.

Frequent care was provided during pregnancy which accounted for 26.1% of activity, with a continuous increase in the number of foreign women (from 740 in 1995 to 11,832 in 2010, 55.4 % of the total).

A significant increase was registered in the number of people receiving care at home: 97,354 in 2010 (89,307 in 2009).

There was a slight decrease in the number of families benefiting from care allowances to take care of sick, disabled or non self-sufficient family members at home – 23,175 in 2010 (23,887 in 2009), whereas expenditure increased – 60.7 million Euros (53.1 in 2009), which also included an additional contribution of 160 Euros aimed at the regularization of family assistants. There were 28,295 residential and semi-residential places for the elderly, the disabled, and individuals with mental health conditions or addictions. Dedicated facilities for the elderly (76.6% of the total) accommodated 24,055 people with an average age of 85 years.

In 2010 the hospice network registered an increase to 241 beds, compared to the 226 beds in 2009.

Mental health services confirmed also in 2010 an increase in the number of adult patients – 76,302 (72,084 in 2009); 38,263 children received support. 30,471 individuals with drug or alcohol addiction were treated at Substance abuse services (SerT), a figure which has basically remained stable over recent years.

Senile dementia services registered 18,017 new users (17,300 in 2009); 65,615 examinations (64,600 in 2009) were carried out by Family advisory health centres/Services for senile dementias. Donations of organs, tissue, cells, blood and cord blood remained at good levels, 325 organs (301 in 2009) were transplanted. Waiting times were good for transplant operations and in line with the national average, while they were even better for heart transplants. The number of blood units collected has slightly increased compared to 2009 (+2%), as well as the number of blood units used (+0.2%).

Good results were achieved, even better in comparison to national data, from the three screening programs for the prevention and early diagnosis of breast, cervical and colorectal cancer. The high participation rate following invitation continued – breast screening 73.1% (60.3% at national level), cervical screening 57% (41.7% at national level), colorectal screening 51.5% (49.5% at national level).
With regard to childhood and adolescent vaccination programs, in 2010 a slight decrease was registered for all vaccinations, even though the national target of 95% was exceeded.
A significant drop was registered in the participation in the regional program for influenza vaccination – 63.3% of the over 65s (73% in 2009), 17.5% of health workers (33.1% in 2009), 134,734 adults and children with chronic conditions (189,890 in 2009). This trend occurred in all Regions.
As for vaccination against human papilloma virus (HPV), 73% females born in 1997 were vaccinated, and 51.9% of those born in 1998; these results are surely to be improved, but were already better compared to the previous year.
Work related accidents reported to INAIL (National Insurance Institute for Occupational Accidents) decreased, although only slightly (-1.5% compared to 2009), but accidents suffered by foreign workers increased by 1.5%. There was a significant reduction in the construction industry, where figures went from 9,897 in 2009 to 8,720 in 2010; in agriculture the figure has been stable over the two years (6,753 compared to 6,720).
With regard to food safety and nutrition, inspections were carried out along the entire production pathway. Non-compliances in production plants for foods of animal origin decreased, whereas non-compliances in production plants for foods of plant origin and in catering increased slightly. The salmonella control plan in poultry farms confirmed a low level of circulation of the most dangerous serotypes for humans.

Programs, agreements and organisational models

The new three-year Prevention Plan was approved at the end of 2010. This Plan is based on guidelines from the National Plan, on the analysis of the implementation of projects started under the previous regional plan, and on the 'Health Profile' of the population, which is useful for establishing priority actions. Plans for occupational safety were approved for the two sectors at higher risk of injury – construction and agriculture.
With regard to breast cancer prevention, January 2012 will see the start of the free diagnostic/treatment pathway for women with a hereditary risk of developing breast cancer; meanwhile, the breast screening program has been enlarged and is now offered to all women between 45 and 74 years of age.
Research and innovation programs are continuing with the definition of activities for the 2010-2012 period, to introduce new technologies, new organisational models, and new practices in health services, developed through research and closely assessed before adoption.
With the conferral of Research Hospital status to Reggio Emilia (Institute of Advanced Technologies and Care Models in Oncology) and Bologna (Institute of Neurosciences) facilities, the Regional Health Service can now count on a network of research hospitals. This recognition also contributes to stimulate research, which is a fundamental activity of the Health Service.
Programs for prevention, surveillance, and risk management in healthcare are going on. Free services available at Emergency Room departments were extended – the aim is to offer services free of charge for anyone, with the same high quality and appropriateness throughout the region.
The guidelines for epileptic patients' assistance were defined, with contributions from the Italian Association against Epilepsy and the Italian Scientific League against Epilepsy.
The commitment of the Health Service to reduce waiting times for outpatient specialist care and to improve programmed admissions is going on and the new three-year plan was adopted by the Regional Board.
Resources earmarked for the Regional Fund for non self-sufficient people increased in 2011 compared with 2010: 501 million Euros were assigned for services for non self-sufficient elderly and disabled adults. A new three-year program for pathologic addictions was approved in 2011.
With regard to pharmaceuticals, actions for the good management and appropriateness in the use of drugs are continuing, and a Regional Therapeutic Handbook of Generic Medicines was published as useful instrument to widen the use of drugs with the same active ingredient as brand-name medicines, but less expensive.
Efforts to establish Healthcare Homes and to create a Profile of Primary Care Units (an analysis of the health status and of the use of health services by the reference population of these Units) are going on.
The new agreement between the Region and general practice physicians and paediatricians was signed in 2011, and an agreement was signed with the Association of Private Hospitals, whose facilities have already been accredited.
An agreement with the Emilia-Romagna Mountain Rescue Service now allows the use of 118 emergency service personnel during the hours of mountain rescue service with a winch.
Activities to accredit all health and social-health services are going on. In 2011 the Regional Government approved some guidelines to regulate relationships among Health Trusts within their reference Vast Area, without creating additional levels of government. The SOLE telematic network (that connects general practice physicians and paediatricians to other professionals and Health Service facilities) is now fully working. The possibility for patients to create their own electronic medical file is gradually being achieved using SOLE data.
Telephone and online services are continually developing; along with the 800 033 033 toll free number (which received 123,183 calls in 2010) there are the Online guide to services, the Phone booking of specialist visits and diagnostics, an experimental system of online booking of specialist visits and diagnostics (by now only for some services and in some Health Trusts), the possibility of making online payments, which is already fully working.
The level of funding for the Regional Health Service in 2011 (resolution no. 732 of 30th May 2011) is 7,871.129 million Euros, regional resources included. The Health Trusts' own revenues and the positive balance by interregional healthcare mobility contribute to the total healthcare expenditure coverage.

Population

The resident population also increased in 2010, confirming a trend that has been underway since the second half of the 1990s. There were 4,432,439 resident individuals as of 31st December 2010, +36,833 compared to 31st December 2009; there were more women (2,281,302) than men (2,151,137). The increase in residents is related to three factors – the continually increasing number of new citizens (foreigners coming to live in Emilia-Romagna) which reached 500,585 (462,840 in 2009); the increase in births which amounted to 41,817 in 2010 showing a slight drop compared with 2009 (42,117) and the increase in the over-65 population which amounted to 986,845 (985,692 in 2009).

The new citizens

The number of people arriving from other parts of the world is continually increasing. The period from 2000 to 2010 alone witnessed a very significant increase – from 130,304 foreign residents in 2000 to 500,585 as of 31st December 2010; in percentage terms from 3.3% in 2000 to 11.3% of the resident population in 2010. Growth compared to 2009 was 37,745 units. Over the decade, women became more and more numerous until they reached the majority (from 50.1% in 2008) – rising from 58,356, 44.8% of the foreign population in 2000, to 257,870, 51.5% as of 31st December 2010. Growth was much greater than at a national level, where new resident citizens accounted for 7% of the population *(latest figure available as of 31st December 2009).*

Analysis of the presence of foreigners in various Local Health Trusts confirms a fact already registered in recent years. As of 31st December 2010 the LHT with the highest number of foreigners was Piacenza (13.4% of the population, 12.6% in 2009), followed by Reggio Emilia (13%, 12.3% in 2009), Modena (12.7%, 11.9% in 2009), Parma (12.5%, 11.5% in 2009); then Ravenna, Forlì, Bologna, Rimini, Cesena, Imola and finally Ferrara, the LHT with the lowest number of resident foreigners (7.6% of the population, 6.8% in 2009). The top three countries with the highest level of representation remain the same – Morocco, Romania and Albania.

New borns

In 2010 41,817 babies were born, a slight decrease compared to 2009 (42,117 in total). The number of babies born to foreign mothers is significant (28% of the total, 27.9% in 2009). In the region the birth rate was 9.5 per 1,000 inhabitants; in Italy the figure was 9.3 per 1,000 inhabitants (slightly lower than in 2009 when the rate was 9.7 in Emilia-Romagna and 9.4 nationally).

The elderly

As of 31st December there were 986,845 people aged over 65 years, 22.3% of the population (985,692 as of 31st December 2009). In Emilia-Romagna the figure has been continually rising for more than two decades. Nationally the percentage of the population over 65 is lower, 20.2% as of 31st December 2009 *(latest figure available).*

The Local Health Trust with the greatest number of people aged over 65 is Ferrara with 25.3%, followed by Piacenza (23.8%), Ravenna (23.6%), Bologna (23.5%), and Forlì (23.4%). The number of people aged over 75 (516,944 in all, 11.7% of the resident population, 11.5% last year) and the number of people aged over 80 (314,652, 7.1% of the resident population, 7% last year) are significant and in line with 2009. Individuals aged over 85 (3.5% of the population, 3.4% in 2009) numbered 154,365.

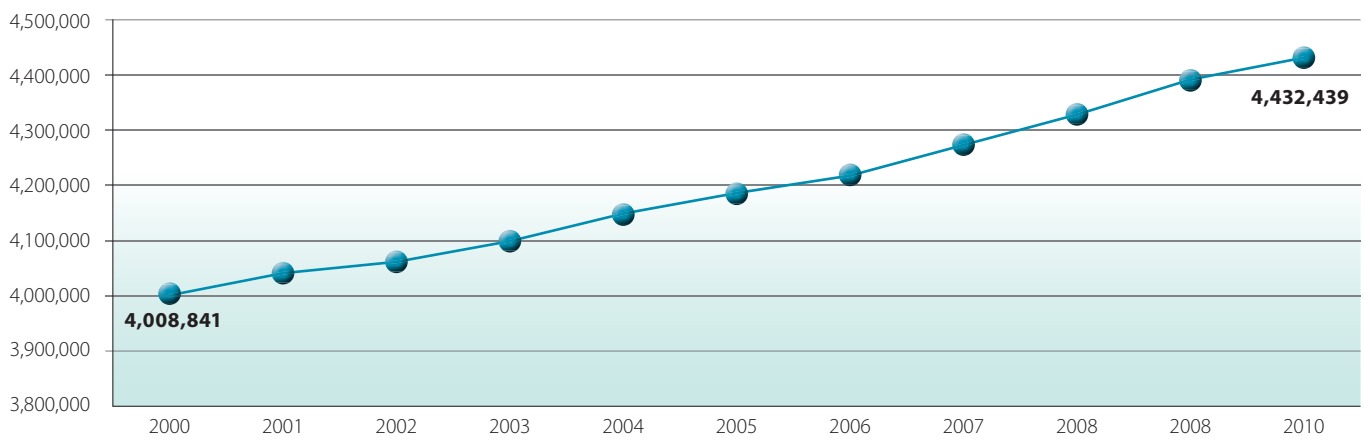
The population of Alta Valmarecchia

Since 1st January 2010 the residents of the 7 Municipalities of Alta Valmarecchia (Casteldieci, Maiolo, Novafeltria, Pennabilli, San Leo, Sant'Agata Feltria and Talamello) have become part of Emilia-Romagna Region rather than of Marche Region (law 117/2009, regional law 17/2009), and have become users of the Regional Health Service (Rimini LHT). They have been counted as part of the resident population since 2009 when they contributed to the increase in the resident regional population with 18,133 inhabitants.

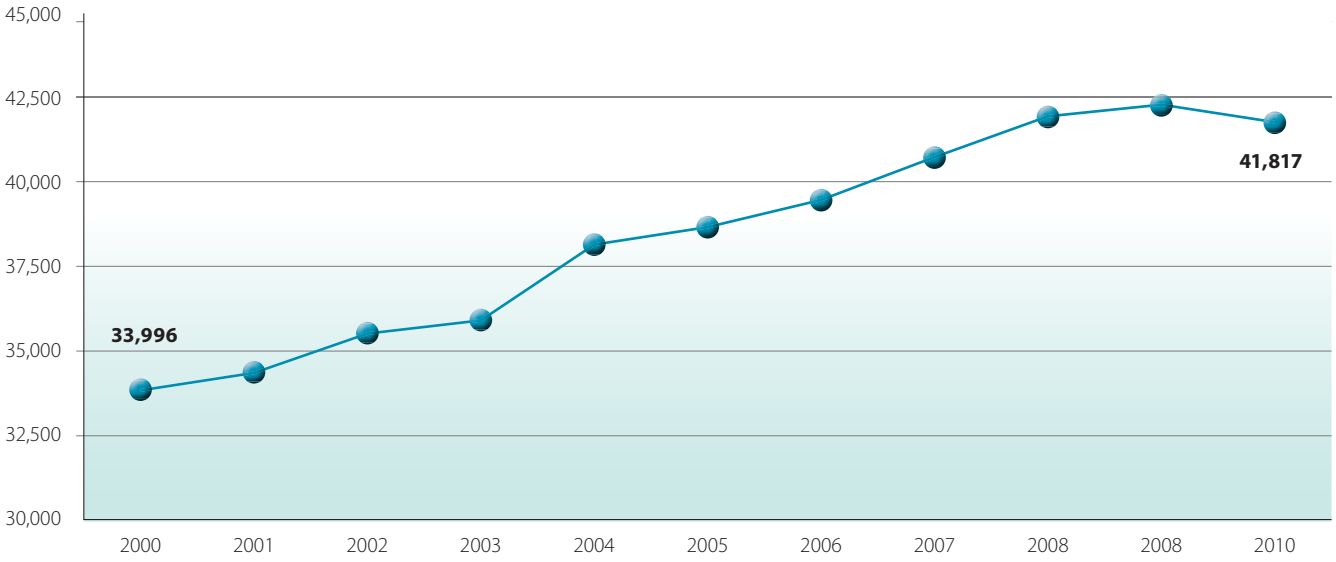
For more information visit:
http://www.regione.emilia-romagna/statistica

Since 2010 the 7 Municipalities of Alta Valmarecchia (Casteldieci, Maiolo, Novafeltria, Pennabilli, San Leo, Sant'Agata Feltria and Talamello) have been included in all statistics on population, facilities, expenditure and activities of Emilia-Romagna.

Resident population in Emilia-Romagna – Period 2000-2010



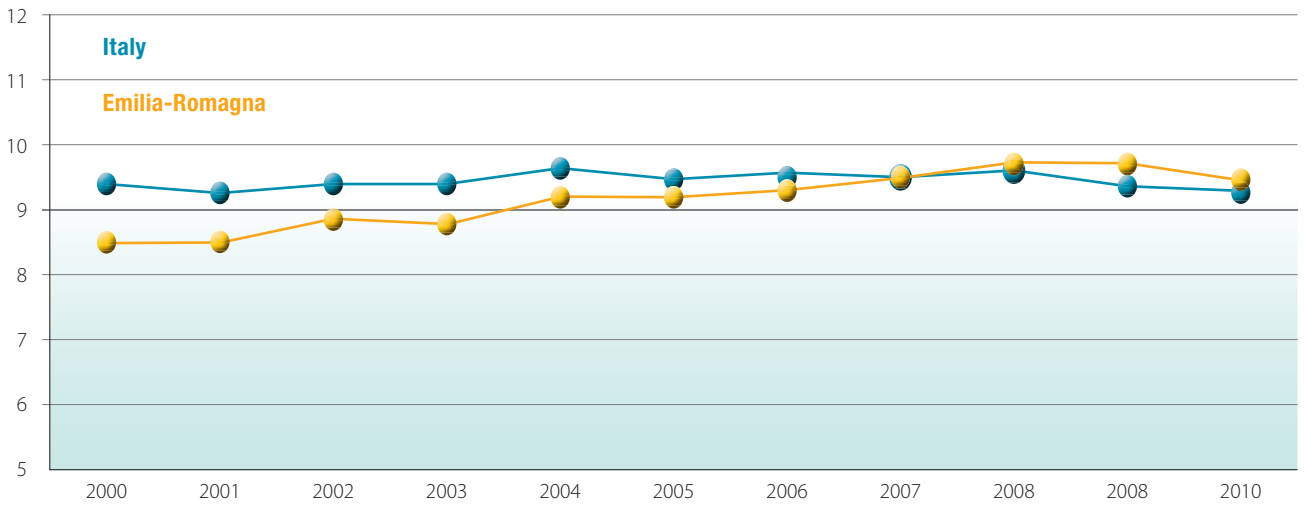
Residents born in Emilia-Romagna – Period 2000-2010



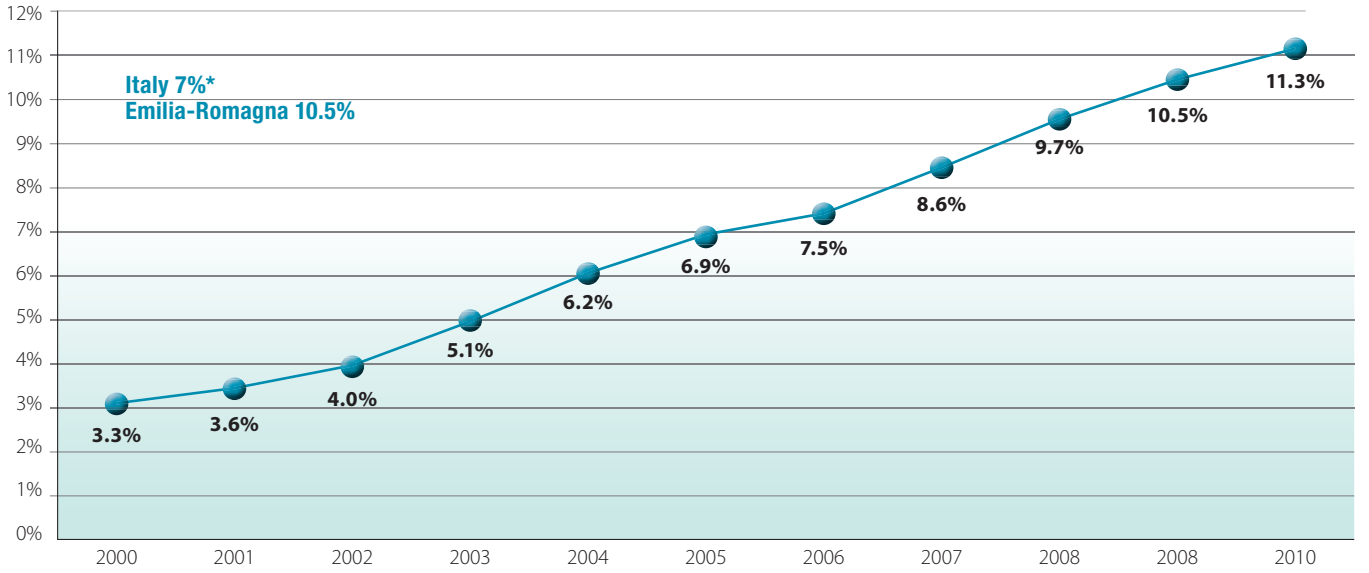
Births by Local Health Trust of residence – Year 2010

Local Health Trust of residence	Year 2010
Local Health Trust of Piacenza	2,463
Local Health Trust of Parma	4,241
Local Health Trust of Reggio Emilia	5,842
Local Health Trust of Modena	7,116
Local Health Trust of Bologna	7,448
Local Health Trust of Imola	1,291
Local Health Trust of Ferrara	2,826
Local Health Trust of Ravenna	3,527
Local Health Trust of Forlì	1,771
Local Health Trust of Cesena	1,997
Local Health Trust of Rimini	3,295
Total	**41,817**

Birth rate per 1,000 inhabitants in Emilia-Romagna and Italy – Period 2000-2010



Percentage of foreign population with respect to resident population in Emilia-Romagna – Period 2000-2010

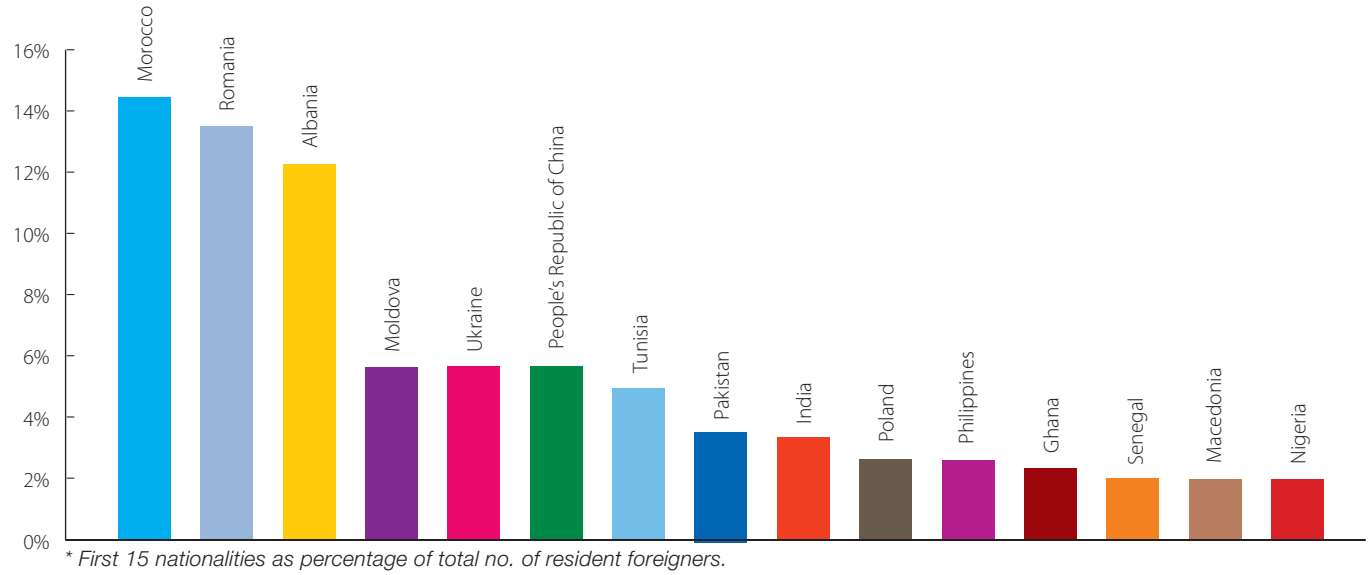


** Latest figure available as of 31/12/2009.*

Resident foreign population by Local Health Trust of residence – Year 2010

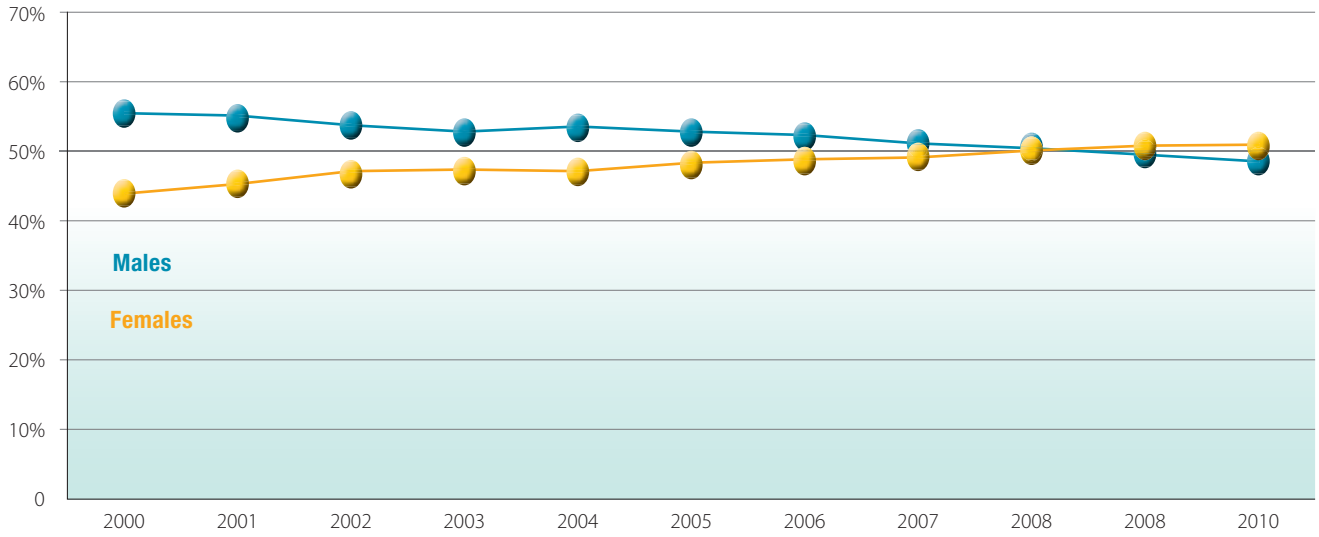
Local Health Trust	Foreign female residents	Foreign male residents	Total no. of foreign residents	Total population	% of foreigners out of total no. of residents
Local Health Trust of Piacenza	19,231	19,486	38,717	289,887	13.4%
Local Health Trust of Parma	28,312	26,757	55,069	442,070	12.5%
Local Health Trust of Reggio Emilia	34,703	34,361	69,064	530,388	13.0%
Local Health Trust of Modena	44,762	44,584	89,346	700,914	12.7%
Local Health Trust of Bologna	48,183	42,933	91,116	860,037	10.6%
Local Health Trust of Imola	6,114	5,579	11,693	131,961	8.9%
Local Health Trust of Ferrara	15,288	12,007	27,295	359,994	7.6%
Local Health Trust of Ravenna	22,090	21,520	43,610	392,458	11.1%
Local Health Trust of Forlì	10,479	10,304	20,783	187,698	11.1%
Local Health Trust of Cesena	10,657	10,122	20,779	207,788	10.0%
Local Health Trust of Rimini	18,051	15,062	33,113	329,244	10.1%
Total	**257,870**	**242,715**	**500,585**	**4,432,439**	**11.3%**

Resident foreign population in Emilia-Romagna by country of birth* – Year 2010



** First 15 nationalities as percentage of total no. of resident foreigners.*

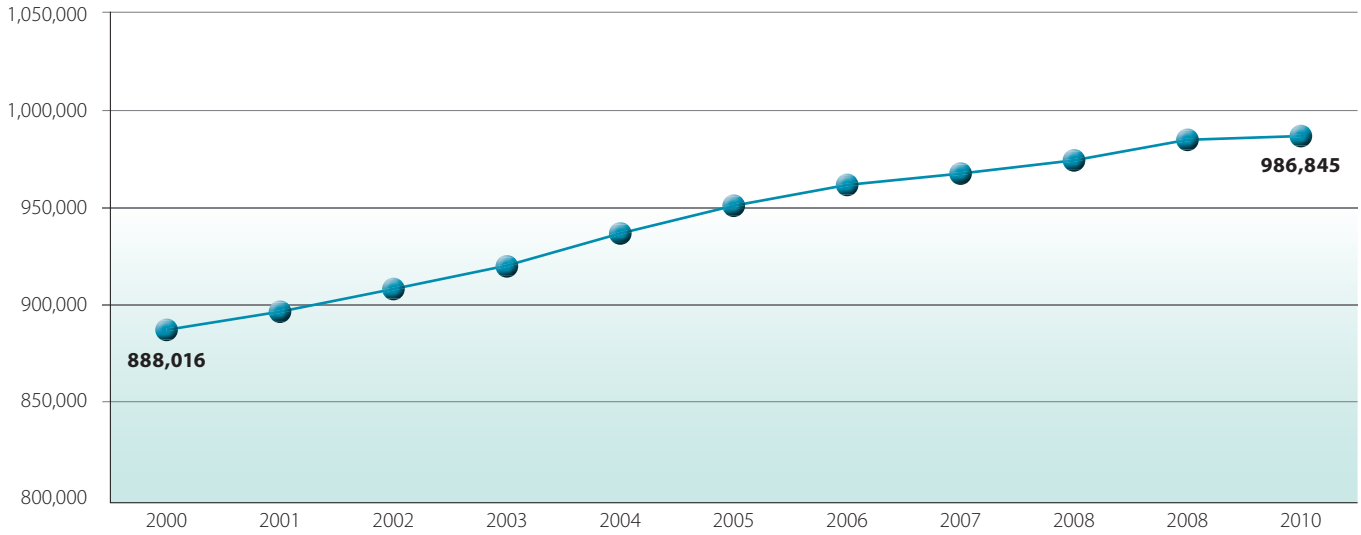
Composition of the resident foreign population by gender – Period 2000-2010



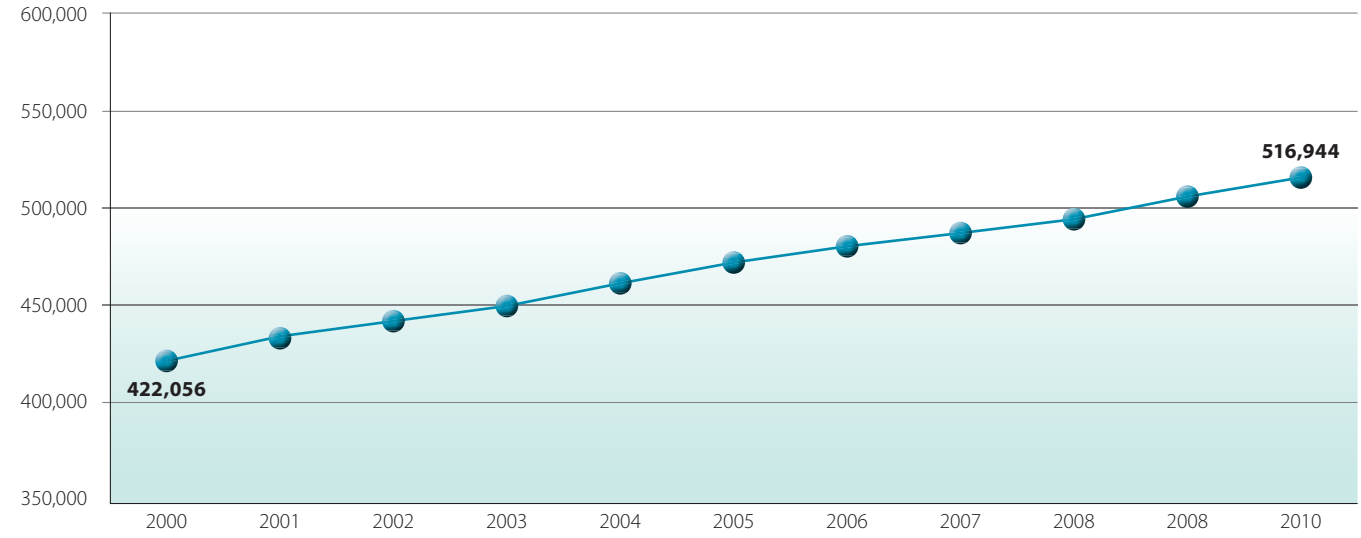
Resident elderly population by Local Health Trust of residence – Year 2010

Local Health Trust	Total population	Over 65	% over 65	Over 75	% over 75	Over 80	% over 80	Over 90	% over 90
Local Health Trust of Piacenza	289,887	68,901	23.8%	36,245	12.5%	22,103	7.6%	3,397	1.2%
Local Health Trust of Parma	442,070	98,357	22.2%	51,611	11.7%	31,923	7.2%	5,030	1.1%
Local Health Trust of Reggio Emilia	530,388	103,701	19.6%	54,333	10.2%	33,150	6.3%	4,986	0.9%
Local Health Trust of Modena	700,914	144,989	20.7%	75,339	10.7%	45,629	6.5%	6,972	1.0%
Local Health Trust of Bologna	860,037	202,524	23.5%	106,892	12.4%	65,840	7.7%	10,247	1.2%
Local Health Trust of Imola	131,961	29,314	22.2%	15,610	11.8%	9,417	7.1%	1,400	1.1%
Local Health Trust of Ferrara	359,994	91,021	25.3%	47,593	13.2%	28,014	7.8%	3,891	1.1%
Local Health Trust of Ravenna	392,458	92,651	23.6%	49,809	12.7%	30,414	7.7%	4,798	1.2%
Local Health Trust of Forlì	187,698	43,975	23.4%	23,285	12.4%	14,444	7.7%	2,238	1.2%
Local Health Trust of Cesena	207,788	43,592	21.0%	21,830	10.5%	13,053	6.3%	1,776	0.9%
Local Health Trust of Rimini	329,244	67,820	20.6%	34,397	10.4%	20,665	6.3%	3,062	0.9%
Total	**4,432,439**	**986,845**	**22.3%**	**516,944**	**11.7%**	**314,652**	**7.1%**	**47,797**	**1.1%**

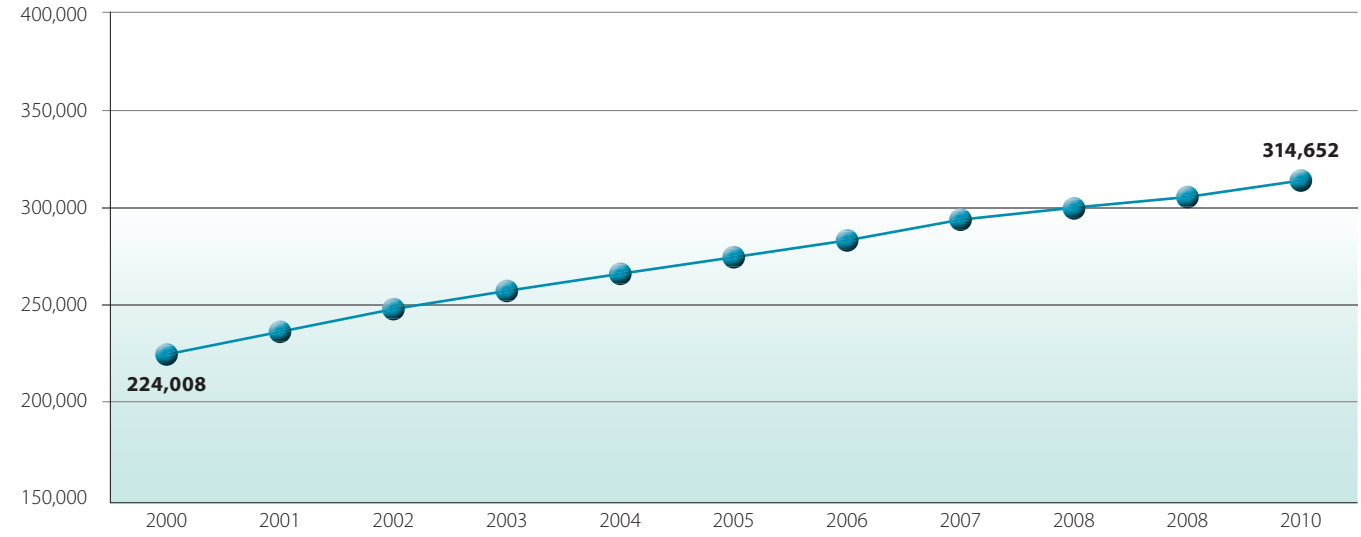
Resident elderly population aged over 65 years – Period 2000-2010



Resident elderly population aged over 75 years – Period 2000-2010



Resident elderly population aged over 80 years – Period 2000-2010



Health Trusts, Research Hospitals, employees, public hospital beds, general practice physicians and paediatricians, Vast Areas

The Regional Health Service comprises:

- 11 Local Health Trusts: Piacenza, Parma, Reggio Emilia, Modena, Bologna, Imola, Ferrara, Ravenna, Forlì, Cesena and Rimini. They usually cover the entire provincial area, with the exception of Bologna (Bologna LHT and Imola LHT) and Forlì-Cesena (Forlì LHT and Cesena LHT);
- 4 University Hospital Trusts: Parma (Maggiore Hospital), Modena (Policlinico Hospital), Bologna (S.Orsola-Malpighi policlinico Hospital) and Ferrara (S.Anna Main Hospital);
- 1 Hospital Trust: Reggio Emilia Hospital Trust (Santa Maria Nuova Main Hospital);
- 3 Research Hospitals (IRCCS): the Rizzoli Orthopaedic Institute of Bologna and, since May 2011, the Reggio Emilia Institute of Advanced Technologies and Care Models in Oncology (within the Reggio Emilia Hospital Trust) and the Bologna Institute of Neurological Sciences (within Bologna Local Health Trust).

Public Hospital beds numbered 15,941 as of 31st December 2010 (16,075 in 2009), with 38 Health Districts. The employees in the Regional Health Service numbered 62,527 (62,181 in 2009, 61,229 in 2008). There were 3,176 contracting general practice physicians (3,208 in 2009) and 602 contracting paediatricians (588 in 2009) in the Regional Health Service. The population amounted to 4,432,439 males and females; the Local Health Trust with the largest number of patients was Bologna LHT (860,037). There are three Vast Areas included in the regional program to optimise the quality and efficiency of technical/logistics services or regional care functions: North Emilia (LHTs of Piacenza, Parma, Reggio Emilia and Modena), Central Emilia (LHTs of Bologna, Imola, Ferrara and Rizzoli Research Hospital) and Romagna (LHTs of Ravenna, Forlì, Cesena and Rimini).

All data in this publication do not consider the two new Research Hospitals IRCCS of Bologna and Reggio Emilia as they acquired this status only in 2011.

LHTs: resident population, Health Districts, public beds, personnel, general practice physicians and paediatricians – Year 2010

Local Health Trust	Population (*)	% population by LHT	No. of Health Districts	No. of public beds (**)	Employees	General practice physicians	Paediatricians
Local Health Trust of Piacenza	289,887	6.5%	3	866	3,637	213	33
Local Health Trust of Parma	442,070	10.0%	4	408	2,597	300	58
Local Health Trust of Reggio Emilia	530,388	12.0%	6	717	4,141	335	82
Local Health Trust of Modena	700,914	15.8%	7	1,645	6,111	519	100
Local Health Trust of Bologna	860,037	19.4%	6	1,817	8,485	616	118
Local Health Trust of Imola	131,961	3.0%	1	564	1,793	99	20
Local Health Trust of Ferrara	359,994	8.1%	3	759	3,137	283	39
Local Health Trust of Ravenna	392,458	8.9%	3	1,173	4,979	284	49
Local Health Trust of Forlì	187,698	4.2%	1	618	2,622	140	26
Local Health Trust of Cesena	207,788	4.7%	2	645	2,827	149	32
Local Health Trust of Rimini	329,244	7.4%	2	981	4,214	238	45
Total no. at Local Health Trusts	**4,432,439**	**100%**	**38**	**10,193**	**44,543**	**3,176**	**602**

Hospital Trusts, University Hospital Trusts, Research Hospitals: beds and personnel – Year 2010

Hospital Trusts, University Hospital Trusts, Research Hospitals	No. of public beds (*)	Employees
University Hospital Trust of Parma	1,233	3,855
Hospital Trust of Reggio Emilia	921	2,822
University Hospital Trust of Modena	744	2,424
University Hospital Trust of Bologna	1,654	5,132
University Hospital Trust of Ferrara	860	2,550
Research Hospital (IRCCS) - Rizzoli Orthopaedic Institute of Bologna	336	1,201
Total no. at Hospital Trusts, University Hospital Trusts, Research Hospitals	**5,748**	**17,984**
Total for the region	**15,941**	**62,527**

(*) Population as of 31/12/2010.
(**) Private hospital beds are not included in the table.

Regional Health Service employees – Period 2009-2010

	2009	2010
Physicians	9,000	9,121
Veterinarians	509	517
Other health professionals	1,177	1,229
Technical and administrative professionals	583	573
Nursing personnel	26,589	26,752
Laboratory and diagnostic personnel	3,416	3,474
Prevention personnel	925	907
Rehabilitation personnel	2,378	2,374
Social workers	432	421
Technical personnel	5,207	5,045
Assisting personnel*	246	204
Social care personnel	5,393	5,561
Specialized auxiliary personnel	359	291
Administrative personnel	5,962	6,055
Religious personnel	5	2
Total	**62,181**	**62,527**

(*) Dying out function.

Vast Areas

Vast Area population	(*) Population	>= 65 years (*) % population	>= 65 years Vast Area of North Emilia
Vast Area of North Emilia	**1,963,259**	**415,948**	**21.2%**
Health Trusts of Piacenza, Parma, Reggio Emilia, Modena			
Vast Area of Central Emilia	**1,351,992**	**322,859**	**23.9%**
Health Trusts of Bologna, Imola, Ferrara, Rizzoli Research Hospital			
Vast Area of Romagna	**1,117,188**	**248,038**	**22.2%**
Health Trusts of Ravenna, Forlì, Cesena, Rimini			
Total	**4,432,439**	**986,845**	**22.3%**

(*) Population as of 31/12/2010.

Expenditure by levels and functions of healthcare for resident citizens, per capita expenditure

Total expenditure in 2010 was 8,431 billion (8,248 in 2009). It was spread among care levels as follows: 53.92% for Health District care (53.33% in 2009), a figure which demonstrates the ongoing development and investment in territorial and home care services; 41.47% for hospital care (41.97% in 2009) for people requiring complex care as hospitalized patients; 4.61% for general health care in daily/work environments (4.7% in 2009). Total per capita expenditure rose from 1,876 Euros in 2009 to 1,902 Euros in 2010, with an increase of 1.37%; Health District care still ranks first in terms of absorption of resources – in 2010 per capita expenditure for Health District care was 1,026 Euros (+2.49% compared to 2009).
The method used for processing data was the same used in 2009; for services financed from the Regional Fund for non self-sufficient people, costs only included the expenditure share from the Regional Healthcare Fund; the share financed by regional resources was excluded.

Expenditure by levels and functions of healthcare – Period 2009-2010

Levels of care	Cost in thousand Euros in 2009 (1)	% of total	Per capita cost in Euros in 2009	Cost in thousand Euros in 2010 (non-conclusive data) (1)	% of total	Per capita cost in Euros in 2010
Total general health care in daily/work environments	**387.765**	**4.70%**	**88.22**	**388.435**	**4.61%**	**87.63**
Primary care (contracting general practice physicians and paediatricians, continuity of care)	464,632	5.63%	105.70	489,194	5.80%	110.37
Territorial emergency services	124,503	1.51%	28.32	124,849	1.48%	28.17
Territorial Pharmaceutical services	1,052,194	12.76%	239.37	1,076,909	12.77%	242.96
Supplementary care and prosthesis	127,988	1.55%	29.12	133,667	1.59%	30.16
Specialist care including emergency care not followed by admission	1,380,504	16.74%	314.06	1,455,509	17.26%	328.38
Home care (2)	190,408	2.31%	43.32	192,690	2.29%	43.47
Healthcare for women, families, couples (Family advisory health centres, community paediatricians)	89,279	1.08%	20.31	89,550	1.06%	20.20
Psychiatric care	358,061	4.34%	81.46	363,929	4.32%	82.11
Rehabilitation for disabled (2)	141,402	1.71%	32.17	141,513	1.68%	31.93
Care for substance abusers	73,383	0.89%	16.69	75,431	0.89%	17.02
Care for elderly (2)	349,911	4.24%	79.60	352,573	4.18%	79.54
Care for terminally ill	22,659	0.27%	5.15	25,871	0.31%	5.84
Care for people with HIV	3,722	0.05%	0.85	4,300	0.05%	0.97
Hydrothermal treatment	20,329	0.25%	4.62	20,382	0.24%	4.60
Total Health District care	**4,398,975**	**53.33%**	**1,000.77**	**4,546,367**	**53.92%**	**1,025.70**
Total hospital care	**3,461,743**	**41.97%**	**787.55**	**3,496,538**	**41.47%**	**788.85**
Total no. of care levels for residents	**8,248,483**	**100%**	**1,876.53**	**8,431,340**	**100%**	**1,902.19**

Source: Final balance LA form 2009 and 2010.

Per capita expenditures are calculated for the resident regional population as of December 31st (self service statistics).
Population as of 31/12/2009: ***4,395,606.***
Population as of 31/12/2010: ***4,432,439.***

NOTES
1) *The cost of prison health care, which amounted to 15.121 million Euros in 2009 and 17.808 million in 2010, was not included in the per capita figure for 2009 or 2010.*
2) *For care activities financed through the Regional Fund for non self-sufficient people, costs include exclusively the expenditure share referred to LEA from the Regional Healthcare Fund, the share financed by regional resources was excluded.*
3) *Specialist care level does not include the expenditure for diagnostic tests carried out as part of screening programs (mammographic, cervical and colorectal), estimated around 17 million Euros, but are allocated to total general health care in daily/work environments.*

The breakdown was done at full cost, namely Health Trust general costs were re-assigned proportionally to healthcare functions.

Expenditure trend: comparison among Regions, interregional funds mobility balance

The comparison of expenditure with other Regions relates to 2007, 2008 and 2009, as the General Report on Italian economic situation for 2010 has not yet been distributed. The analysis highlights rates of growth for expenditure in Emilia-Romagna in line with the national average, even though there was a greater increase in the resident population of Emilia-Romagna compared to national figures – 1.33% in 2009 over 2008, against a national figure of 0.49% (in 2010 the difference was even greater, 2.18% in Emilia-Romagna and 0.09 in Italy).

The credit balance of the healthcare mobility fund as of 31st December 2010 was 343.93 million Euros, slightly less than in 2009 (354.18 million Euros).

Region by region expenditure – Period 2007-2009 (absolute figures in thousand Euros)

Autonomous Region and Province	Total expenditure 2007	Total expenditure 2008	Total expenditure 2009*	% difference 2008/2007	% difference 2009/2008*
Piemonte	7,728,719	8,074,746	8,333,699	4.48%	3.21%
Valle d'Aosta	246,894	260,339	265,389	5.45%	1.94%
Lombardia	16,167,360	16,724,676	17,177,363	3.45%	2.71%
Provincia autonoma di Bolzano	1,064,781	1,108,009	1,082,304	4.06%	-2.32%
Provincia autonoma di Trento	943,395	994,971	1,054,368	5.47%	5.97%
Veneto	8,105,133	8,387,263	8,707,708	3.48%	3.82%
Friuli Venezia Giulia	2,154,713	2,311,467	2,414,109	7.27%	4.44%
Liguria	3,097,597	3,176,280	3,269,395	2.54%	2.93%
Emilia-Romagna	**7,627,534**	**7,947,074**	**8,253,732**	**4.19%**	**3.86%**
Toscana	6,402,585	6,659,860	6,844,518	4.02%	2.77%
Umbria	1,501,653	1,566,160	1,608,258	4.30%	2.69%
Marche	2,525,158	2,618,186	2,746,009	3.68%	4.88%
Lazio	10,877,307	11,083,794	11,109,023	1.90%	0.23%
Abruzzo	2,330,397	2,357,201	2,373,675	1.15%	0.70%
Molise	621,930	651,124	667,286	4.69%	2.48%
Campania	9,709,887	10,018,510	10,096,817	3.18%	0.78%
Puglia	6,751,079	7,081,313	7,126,452	4.89%	0.64%
Basilicata	970,692	1,015,814	1,033,500	4.65%	1.74%
Calabria	3,428,242	3,370,119	3,479,066	-1.70%	3.23%
Sicilia	8,327,086	8,279,633	8,418,844	-0.57%	1.68%
Sardegna	2,705,595	2,905,485	3,002,365	7.39%	3.33%
Italy	**103,287,737**	**106,592,023**	**109,063,879**	**3.20%**	**2.32%**

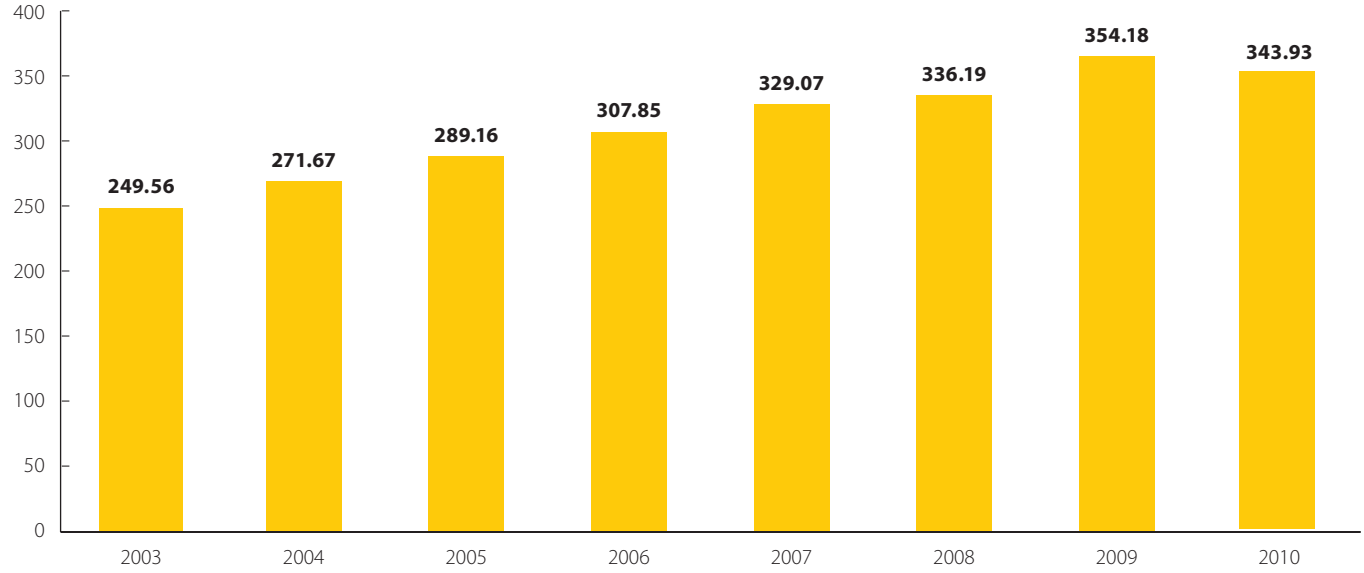
2007-2009 Source: General report on the national economic situation, 2009.
** Data up until 2009, as the General Report on the national economic situation for 2010 is not yet available.*

Resident population trends in Emilia-Romagna and Italy – Period 2008-2010

	2008	2009	2010	% increase 2009/2008	% increase 2010/2008
Emilia-Romagna	4,337,966	4,395,606	4,432,439	1.33%	2.18%
Italy	60,045,068	60,340,328	60,626,442	0.49%	0.97%

Resident population as of 31/12.
Source: Emilia-Romagna Region - Self-service statistics.
Source of national data: ISTAT (National Institute of Statistics).

Interregional healthcare mobility – Period 2003-2010 (in million Euros)



Average payment periods for suppliers of goods and services

In 2010 regional action aimed at enabling Health Trusts to contain payment periods for medical suppliers continued, following on from the previous two financial years which had already registered significant results. This action was also aimed at reinforcing the measures set out in the Anti-Crisis Pact agreed between the Region and local organisations, business associations, and auditing bodies, to deal with the financial crisis which affected also Emilia-Romagna.
In particular, the Region intervened with several measures to support the liquid assets of the system; in 2010 alone it intervened with approximately 560 million Euros.
The delays in payment periods for suppliers of goods and services in the Regional Health Service are mainly due to the transfer methods for resource funds assigned to the Region by the State. Payment of the regional health fund is made a year in arrears, once performance levels have been verified.

At the end of 2010 Emilia-Romagna was able to boast being in credit with the State for an amount of 785 million Euros. Health Trusts complied with compulsory payment due dates (salaries for permanent staff and professionals, contributions, taxes, utilities, insurance and loans) and ensured contained timescales (30-90 days) for suppliers of services delivered directly to citizens (Regional Health Service-funded pharmacies, private hospitals, hydrotherapy, social co-operatives and managing bodies of protected facilities). The payment periods outlined in the table only relate to suppliers of goods and services – the average regional value was 266 days at the end of 2010 (255 in 2009), and less than the average values for waiting times for payments registered at a national level by Assobiomedica (National Federation for Biomedical Technologies, diagnostics, medical equipment, services and telemedicine): 269 days in 2008, 259 in 2009 and 278 in 2010.

Average payment periods for suppliers of goods and services of Health Trusts – Period 2007-2010

Health Trust	2007	2008	2009	2010
Local Health Trust of Piacenza	400	240	210	250
Local Health Trust of Parma	330	210	120	120
Local Health Trust of Reggio Emilia	330	270	180	225
Local Health Trust of Modena	465	360	270	240
Local Health Trust of Bologna	395	300	300	325
Local Health Trust of Imola	360	180	220	270
Local Health Trust of Ferrara	480	285	240	320
Local Health Trust of Ravenna	300	240	240	270
Local Health Trust of Forlì	360	360	540	360
Local Health Trust of Cesena	390	270	240	240
Local Health Trust of Rimini	270	240	270	300
University Hospital Trust of Parma	165	180	210	240
Hospital Trust of Reggio Emilia	285	285	300	290
University Hospital Trust of Modena	375	375	360	345
University Hospital Trust of Bologna	405	225	255	315
University Hospital Trust of Ferrara	375	285	285	315
IRCCS Rizzoli di Bologna	330	90	90	90
Average regional value	**354**	**259**	**255**	**266**
Payment periods registered by Assobiomedica in Emilia-Romagna	**367**	**260**	**252**	**263**
Payment periods registered by Assobiomedica in Italy	**286**	**269**	**259**	**278**

Purchases via Intercent-ER

In 2010 health expenditure was found to be the main area of intervention of Intercent-ER, the agency established by the Region to manage the purchase of goods and services via innovative computerised tools, with the aim of promoting and supporting purchase optimisation and managing the technological platform set up by the Region. Health Trusts also use Intercent-ER and are bound to use the arrangements agreed by the Agency for their purchases.

Adherence to the Intercent-ER arrangements concerns all Health Trusts. The objective set regarding Intercent-ER in regional planning – to achieve an order percentage of 25% of the total volume of expenditure for the purchase of goods and services of Health Trusts – was fully satisfied, and was even exceeded at 32%. This result was achieved mainly due to tenders for purchasing medicines in the three Vast Areas of Romagna, North Emilia, and Central Emilia.

The Regional Fund for non self-sufficient people: resources used, areas of intervention

Regional expenditure for 2010 resulting from the financial contribution from the Regional Fund for non self-sufficient people was 432.5 million, to which National Fund resources were added (a fund discontinued at a national level and cancelled from 2011 onwards) for a further 35.6 million, amounting to a total of 468.1 million spent in 2010. Of this amount 66.4% was allocated to the elderly (310.7 million), 32% to the disabled (149.8 million) and 1.6% to cross sector activities between elderly and disabled adults (7.6 million).

Expenditure registered an increase of approximately 8.9 million Euros compared with the previous year (+3.5 million for the elderly, +6.3 million for disabled adults, and a decrease of 1.1 million for cross sector activities), an increase which allowed to maintain the network of services developed in the three-year period following commencement of the Regional Fund for non self-sufficient people *(for the 2011 program see Page 62).*

The Regional Fund for non self-sufficient people: resources used in million Euros, areas of intervention – Year 2010

Area of intervention	Resources used from the Regional Fund for non self-sufficient people	Resources used from the National Fund for non self-sufficient people	Total resources used	% of total
Residential care for the elderly	198.5	2.69	201.2	43.0%
Home care for the elderly	89.7	13.97	103.6	22.2%
Access and handling	1.7	1.98	3.7	0.8%
Other activities for the elderly	1.0	1.11	2.1	0.5%
Total for elderly sector	**290.9**	**19.75**	**310.7**	**66.4%**
Residential care for the disabled	67.1	0.12	67.2	14.4%
Home care for the disabled	68.9	9.62	78.5	16.7%
Access and handling	0.6	1.16	1.7	0.4%
Other activities for the disabled	1.4	1.04	2.4	0.5%
Total for disabled sector	**137.9**	**11.94**	**149.8**	**32.0%**
Emersion and qualification of assistance work for family assistants	0.9	0.44	1.4	0.3%
Counselling services and financial support for home adaptation	0.3	0.72	1.0	0.2%
Social network support programs and prevention programs for individuals at risk	2.1	2.42	4.5	1.0%
Other cross-sector activities	0.3	0.34	0.7	0.1%
Total for cross-sector activities	**3.7**	**3.92**	**7.6**	**1.6%**
Total	**432.5**	**35.61**	**468.1**	**100%**

Pharmaceutical expenditure

Actions for the management and suitable selection of medicines from the Regional Therapeutic Handbook continued. Special attention has been given to clinical auditing, with training courses for members of Treatment Commissions and Health Trust professionals. Attention has been given to the risks related to drug use through initiatives for safety and quality of treatment improvement.

Expenditure

In 2010 territorial pharmaceutical expenditure increased by 0.7% compared with 2009. This included Regional Health Service-contracted pharmaceutical expenditure (drugs delivered to public by pharmacies on presentation of a health service prescription) and direct distribution (class A medicines that Health Trusts directly deliver to patients after being discharged from hospital, after specialist consultations, for the treatment of chronic conditions, in residential and home care; medicines distributed by pharmacies "on behalf" of Local Health Trust on the basis of specific agreements). Contracted pharmaceutical net expenditure in 2010 decreased by 0.9% compared to 2009, due to the use of generic medicines, and a reduction in the cost of medicines incurred by the National Health Service. Consumption (number of prescriptions) increased by 3.95%. At a national level, contracted pharmaceutical net expenditure in 2010 decreased by 2.4% against an increase in consumption (number of prescriptions) equivalent to 2.7% (source: Osmed Report, 2010).
Expenditure for the direct distribution of class A medicines in 2010 registered an increase of 7.6% compared with 2009, also following the reclassification of medicines for hospital use in pharmacies for the purpose of hospital/territorial continuity. The increase in hospital pharmaceutical expenditure in 2010 (+6.2% on 2009) was more contained than 2009 against 2008 (+10.2%), which was also due to the reclassification of medicines for hospital use in pharmacies for the purpose of hospital/territorial continuity.

Per capita cost

The gross per capita cost of contracted pharmaceutical net expenditure in Emilia-Romagna was lower than the national figure: 179.40 Euros, with respect to 215.10 Euros *(source: Osmed Report, 2010).*

Pharmacovigilance and medical devices vigilance

In 2010 educational activity on pharmacovigilance and medical devices vigilance continued, with training courses, targeted hospital projects (for example the study of adverse reactions to medicines in hospitals and in the community), and the compilation of the Regional Pharmacovigilance Centre Information Bulletin.
Pharmacovigilance activities registered a gradual increase in the reporting of suspected adverse reactions – in 2010 there were 29.8 reactions per 100,000 inhabitants (28.1 in 2009 and 21 in 2008). With regard to the use of medical devices, since 2008 a regional system has been developed, which identifies subjects, actions and tools to adopt for clinical and financial management.

Generic medicines

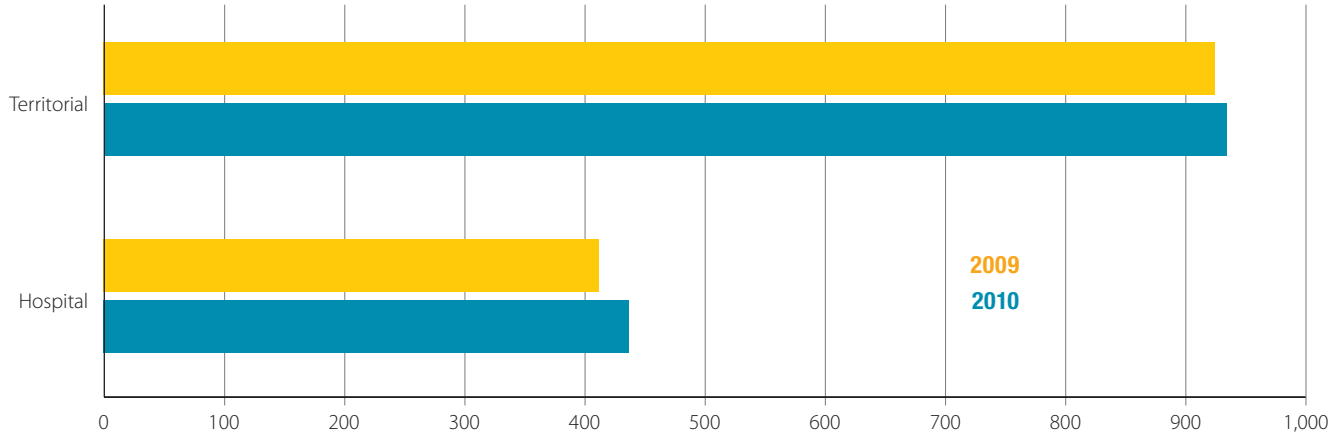
The use of patent-expired medicines is constantly increasing, and this has contributed to contain contracted pharmaceutical expenditure. Currently, 19% (227) of medicines used in Emilia-Romagna are patent-expired active substances totally covered by Regional Health Service.
From 2005 to the present, expenditure for these medicines has risen from 15% to 37% of contracted pharmaceutical expenditure; percentage consumption of the total number of medicines provided rose from 26% in 2005 to 54% in 2010.

For more information visit: **http://www.saluter.it**

Pharmaceutical expenditure by type and percentage variation – Period 2009-2010

	2009	2010	% var
Contracted pharmaceutical net expenditure	749,579,355	742,750,167	-0.9
Expenditure for drugs totally covered by Regional Health Service directly delivered to public:	179,559,955	193,172,613	7.6
of which by Health Trusts' pharmacies	162,963,434	172,582,096	5.9
of which "on behalf" of RHS	16,596,521	20,590,517	24.1
Total territorial pharmaceutical expenditure	**929,139,310**	**935,922,780**	**0.7**
Hospital pharmaceutical expenditure	**413,447,455**	**439,013,976**	**6.2**
Total regional pharmaceutical expenditure	**1,342,586,765**	**1,374,936,756**	**2.4**

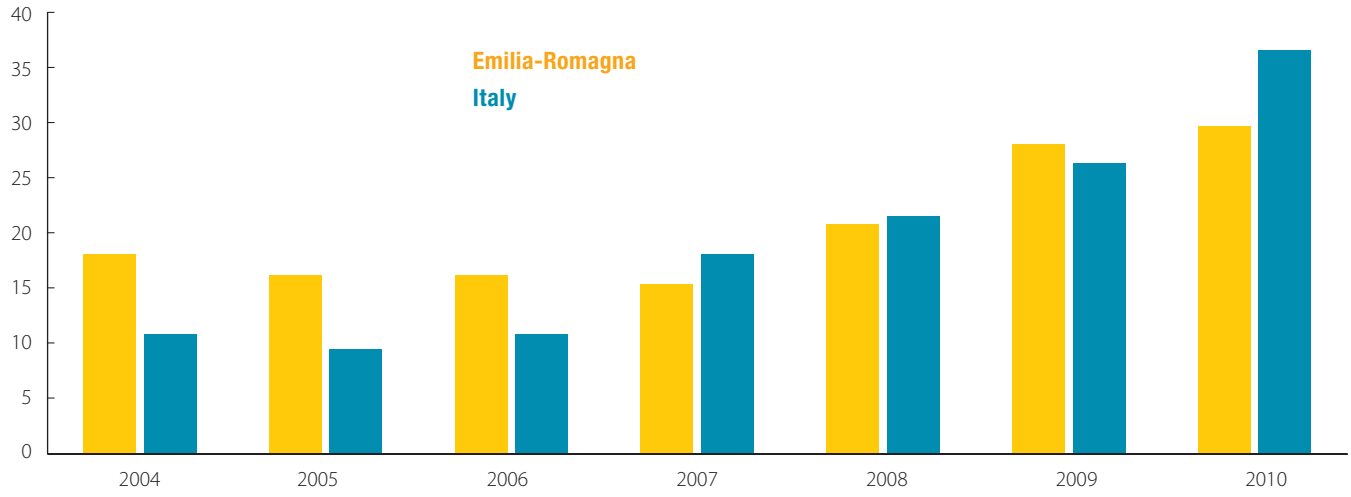
Division of pharmaceutical expenditure by type (in million Euros) – Period 2009-2010



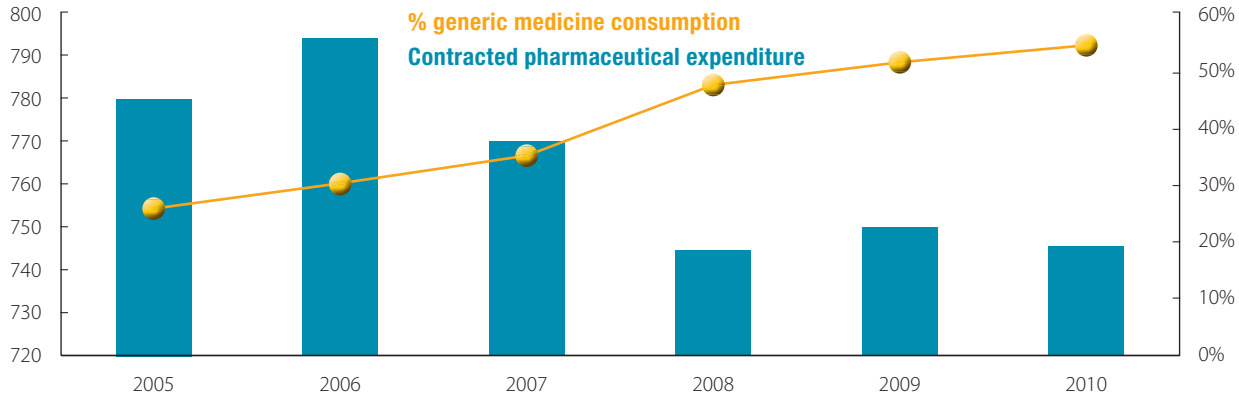
Per capita contracted pharmaceutical expenditure – Year 2010

Emilia-Romagna	179.40 Euros
Italy	215.10 Euros

Pharmacovigilance: reports of suspected adverse reactions per 100,000 inhabitants Period 2004-2010



Generic medicines: consumption trend in terms of contracted pharmaceutical expenditure (in million Euros) – Period 2005-2010



Investments for healthcare and social services facilities

Investments (between 1991 and 2010) to modernise, adapt and implement the Regional Health Service's technological and structural network amounted to 2.462 billion Euros – 1,343 million Euros from the State, 732 million from Health Trusts, 325 million from the Region and 62 million from other bodies (Municipalities, Universities, foundations and the Environmental Health Agency). Funding provided by the Regional Program for Healthcare Investments is also part of this figure (for a total of 368.255 million).
The 2.462 billion regard 560 initiatives (193 of which are in the Regional Program for Healthcare Investments) aimed at new constructions, renovations, operational and legislative adaptations (safety and accreditation) of the hospital network and facilities throughout the territory (which include primary care, dentistry, public health and veterinary health, mental health, social-health integration and administrative premises), the adaptation of technologies and initiatives for the freelance profession within public hospitals.
Of 560 initiatives, 64% have been concluded, 10% are in progress, 12% still have to begin, 14% are in the planning stage.
These are significant results that confirm the effectiveness in implementing initiatives, which is also due to the high level of synergy between the Region and the Health Trusts.

Regional Program for Healthcare Investments

This program was set up with the 2003 regional budget (article 36 of regional law 38/2002). Between 2003 and 2010 funding amounted to 368.255 million Euros (236.141 from the Region, 108.039 from Health Trusts, 24.075 from other government sources, local and private organisations. Funding assigned to Health Trusts as a capital contribution is aimed at the adaptation of the hospital network (renovations, streamlining and legislative adaptations) and its enlargement (development of new departments/blocks in existing hospitals), the adaptation of community services, and technological modernisation. There were 193 financial initiatives up until 2010; these included regional program initiatives for dental care (3 phases for a total of 7.150 million Euros).
The regional program focused special attention on technological modernisation – more than 25% of the sum was allocated for the purchase of new technologies; 36% of 193 initiatives are in the planning phase, 7% are still to be assigned, 12% are in progress, and 45% have been concluded.

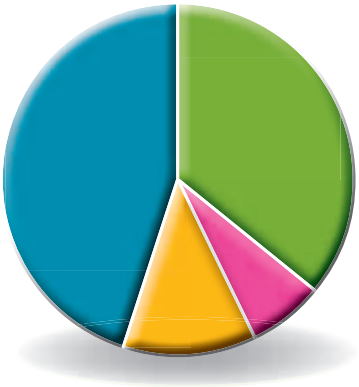
Investment in social-health facilities

Between 1991 and 2010 a sum of more than 453 million Euros was invested (160 of which received from the State, 82 from the Region and 209 from implementation bodies) for social-health building projects, completed by organisations that are not part of the Regional Health Service.
There were 541 initiatives for social care facilities for the elderly, disabled, children, single mothers and abused women, and people on very low incomes. 68% of the initiatives have been concluded, 16% are in progress and 15% are in the planning stage.

Investment for health and social-health facilities implemented by the Regional Health Service – Period 1991-2010

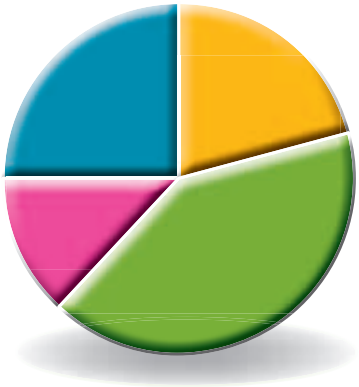
Health Trust (HT)	State share	Regional share	Health Trust share	Other funding	Total
Local Health Trust of Piacenza	86,069,990.93	19,859,099.99	12,695,744.99	950,280.69	119,575,116.60
Local Health Trust of Parma	43,472,978.28	7,805,395.90	41,619,238.45	1,000,000.00	93,897,612.63
University Hospital Trust of Parma	110,901,846.38	20,219,619.15	28,508,831.04	-	159,630,296.57
Local Health Trust of Reggio Emilia	50,858,621.00	10,537,862.03	48,675,624.58	103,291.38	110,175,398.99
Hospital Trust of Reggio Emilia	67,610,434.92	19,180,971.96	39,572,774.88	-	126,364,181.76
Local Health Trust of Modena	149,706,051.12	27,502,150.37	99,234,702.63	8,556,766.79	284,999,670.91
University Hospital Trust of Modena	65,918,165.61	12,079,685.44	17,444,267.71	-	95,442,118.76
Local Health Trust of Bologna	192,390,022.13	34,624,771.89	113,755,882.84	13,776,278.71	354,546,955.57
University Hospital Trust of Bologna	143,870,527.95	33,289,585.66	141,299,761.23	12,910,000.00	331,369,874.84
IRCCS Istituto Ortopedico Rizzoli di Bologna	10,211,379.55	4,755,639.96	7,260,510.01	21,784,125.00	44,011,654.52
Local Health Trust of Imola	18,976,855.53	8,545,829.18	11,536,338.07	-	39,059,022.78
Local Health Trust of Ferrara	48,691,078.32	16,688,723.14	17,444,104.91	-	82,823,906.37
University Hospital Trust of Ferrara	75,364,122.13	16,624,117.61	9,027,672.10	-	101,015,911.84
Local Health Trust of Ravenna	94,569,282.03	22,125,153.10	28,325,994.78	437,481.96	145,457,911.87
Local Health Trust of Forlì	63,944,093.73	19,310,120.04	57,429,034.17	-	140,683,247.94
Local Health Trust of Cesena	42,018,802.69	17,474,092.50	17,157,668.85	1,978,524.58	78,629,088.62
Local Health Trust of Rimini	78,168,484.64	34,105,688.36	41,460,037.72	750,000.00	154,484,210.72
Regional total	**1,342,742,736.94**	**324,728,506.28**	**732,448,188.96**	**62,246,749.11**	**2,462,166,181.29**

Regional Program for Health Investments – implementation status of the 193 initiatives Period 2003-2010



45% finished
12% work in progress
7% to be assigned
36% in the planning stage

Regional Program for Health Investments – fund allocation by area of intervention Period 2003-2010



25% technologies
21% renovation
13% adaptation of legislation
41% enlargement

Investment for health and social-health facilities implemented by organisations that are not part of the Regional Health Service – Period 1991-2010

Province	State's share	Regional share	Implementation bodies' share	Other funding	Total
Piacenza	10,740,185.64	8,600,829.32	20,296,590.81	-	39,637,605.77
Parma	16,803,336.83	8,218,944.39	17,855,929.06	-	42,878,210.28
Reggio Emilia	28,380,229.75	11,537,490.30	37,366,052.88	-	77,283,772.93
Modena	16,883,194.92	11,827,486.17	34,375,322.70	-	63,086,003.79
Bologna	30,585,965.33	15,942,711.84	37,244,785.30	7,827.55	83,781,290.02
Ferrara	6,848,590.02	5,085,911.03	8,567,020.52	-	20,501,521.57
Ravenna	17,153,498.22	7,369,654.83	17,050,985.04	1,550,000.00	43,124,138.09
Forlì-Cesena	21,535,880.21	8,580,076.59	23,422,349.49	-	53,538,306.29
Rimini	11,411,244.70	5,245,561.68	12,943,785.78	-	29,600,592.16
Regional total	**160,342,125.62**	**82,408,666.15**	**209,122,821.58**	**1,557,827.55**	**453,431,440.90**

Hospital care: beds, admissions, extraregional attraction index, waiting lists for planned admissions, visits to Emergency Room

Beds, admissions, attraction index

As of 31st December 2010 beds in public hospitals and accredited private hospitals amounted to 19,606 – 15,941 public (81.3% of the total) and 3,665 accredited private beds (18.7% of the total). In 2009 beds amounted to a total of 19,732 (16,075 public, 3,657 accredited private).
In 2010, for every 1,000 inhabitants there were 3.58 acute care beds (3.64 in 2009) and 0.88 long-term care and rehabilitation beds (0.91 in 2009). 13,936 beds were reserved for standard admissions (71.1% of the total), 3,712 beds for long-term care and rehabilitation (18.9% of the total), and 1,956 beds (10% of the total) for day hospital treatment and day service.
The rate of hospitalisation per 1,000 inhabitants was basically stable with respect to 2009, and slightly lower than in 2008 – 131.8 for standard admissions (131.8 in 2009, 134.3 in 2008) and 43.6 for day hospital admissions (43.7 in 2009, 43.9 in 2008).
In 2010 the number of admissions was stable: 844,597 (843,889 in 2009). 788,566 of the 2010 admissions concerned acute care beds (788.346 in 2009), 23.215 rehabilitation beds (22,993 in 2009), and 32,816 long-term care beds (32,550 in 2009).
The attraction index of hospitals in Emilia-Romagna with regard to people coming from other regions was similar to that of 2009 at 13.8%.

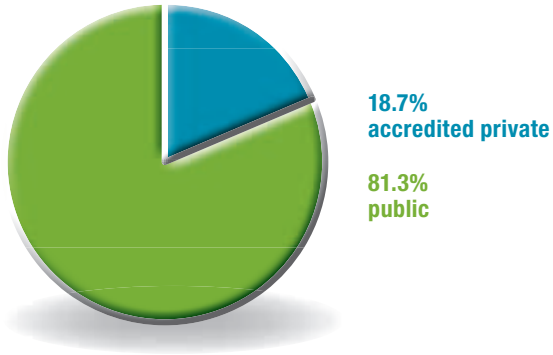
Waiting times for planned admissions

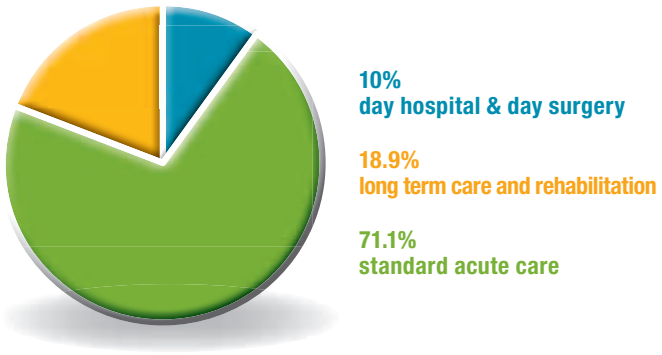
In line with national standards, the Region identified specific objectives for some planned surgery – treatment of 100% cases of uterine, breast and colorectal cancer within 30 days; treatment of 90% cases of coronary angioplasty and aortocoronary bypass within 60 days; treatment of 90% cases of carotid endarterectomy within 90 days; treatment of 90% cases of cataract and hip replacement within 180 days. Goal attainment in the cardiology, vascular and ophthalmology areas was satisfactory. As for hip replacement surgery, an improvement was registered in 2010 but the national target has not yet been achieved. In the area of oncology, standard performance levels have not yet been reached in the various regional facilities; however, it should be considered that data are influenced by overall times required by pre-surgical diagnostic and therapeutic paths, and by the surveying methods of waiting times, which are not considered from the date of surgery prescription, but from diagnosis date (between diagnosis and surgery, time extension could actually be justified by some necessary therapies).

Visits to Emergency Room Departments

In 2010 there were 1,826,192 visits to Emergengy Room Departments (1,823,753 in 2009). This figure has basically been stable in recent years, fluctuating around 1.8 million visits/year. This figure stresses the relevance of this activity. Also the percentage of hospital admissions with respect to Emergency Room visits was stable, accounting for 14% visits in 2010 (13.8% in 2009).

Public and accredited private beds – Year 2010: 19,606





Beds per 1,000 inhabitants as of 31/12/2010

Acute care	3.58
Long-term care and rehabilitation	0.88

Hospital admission rate per 1,000 inhabitants as of 31/12/2010

Standard	131.3
Day hospital	43.6

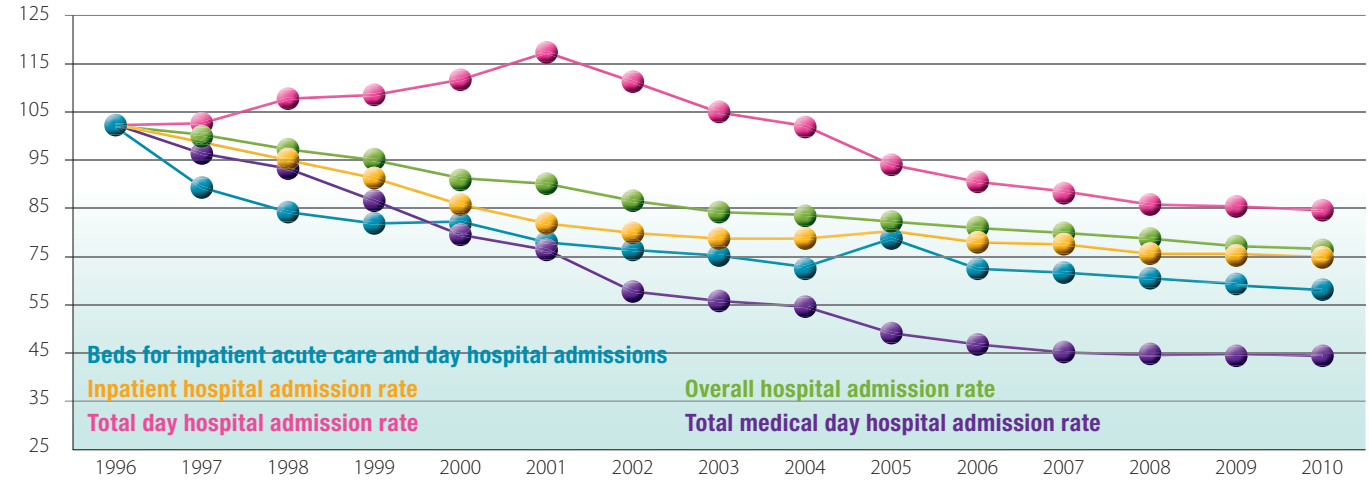
Admissions as of 31/12/2010

Acute care	788,566
Rehabilitation	23,215
Long-term care	32,816
Total	**844,597**

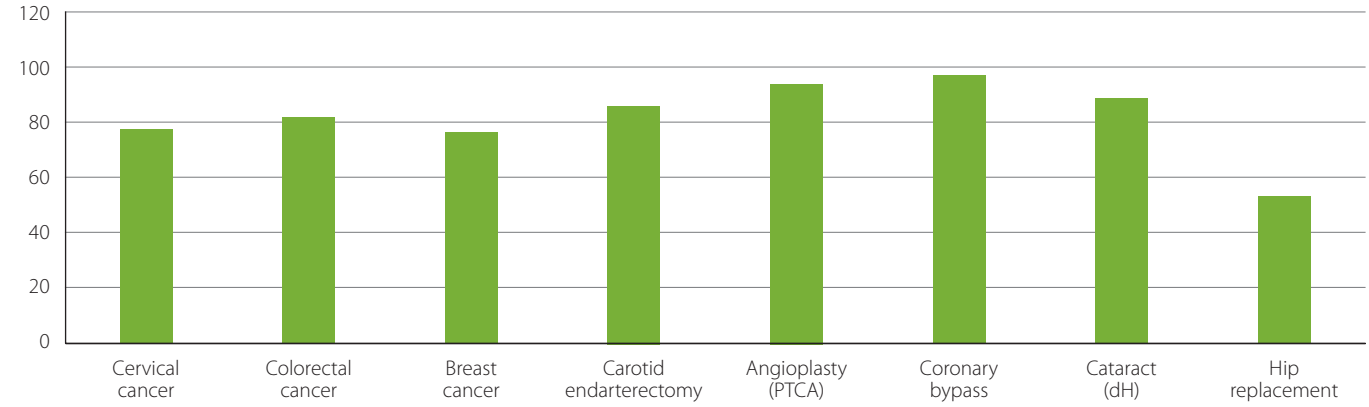
Extraregional attraction index

Year 2010	13.8%

Hospital admission rates – Years 1996-2000 (index number 1996 = 100)



Percentage of planned surgery performed within time limits set by national standards – Year 2010



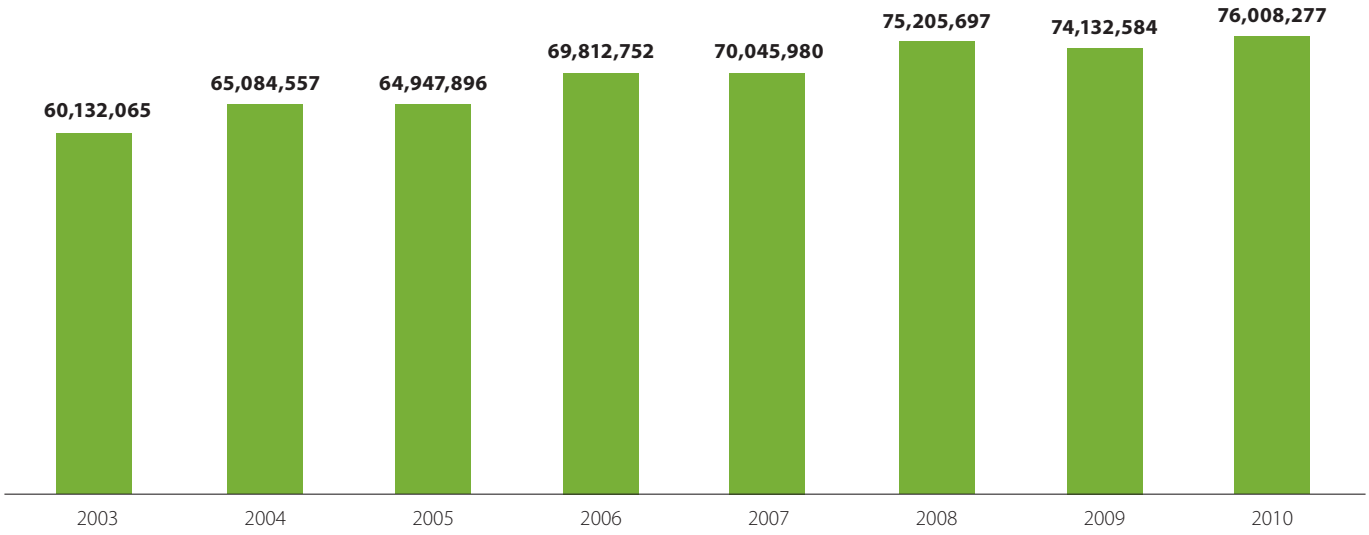
Emergency Room department activity – Period 2008-2010

Health Trust	2008		2009		2010	
	Total	% admissions	Total	% admissions	Total	% admissions
Local Health Trust of Piacenza	114,323	13.7	112,126	14.3	106,798	15.0
Local Health Trust of Parma	38,846	15.1	38,606	14.1	39,325	13.8
Local Health Trust of Reggio Emilia	94,595	10.6	97,505	10.0	92,202	10.8
Local Health Trust of Modena	202,699	13.3	201,643	13.2	202,776	13.2
Local Health Trust of Bologna	237,708	14.0	245,551	13.5	246,856	13.2
Local Health Trust of Imola	61,693	15.0	59,764	15.5	59,231	15.6
Local Health Trust of Ferrara	92,864	13.2	92,493	12.5	89,257	12.3
Local Health Trust of Ravenna	182,599	12.8	184,439	12.6	183,586	12.6
Local Health Trust of Forlì	61,196	12.3	59,970	12.7	59,255	12.8
Local Health Trust of Cesena	80,966	14.5	75,315	14.9	55,074	18.2
Local Health Trust of Rimini	124,655	11.7	126,828	12.6	174,373	11.5
University Hospital Trust of Parma	81,699	19.3	82,088	18.0	82,535	17.7
Hospital Trust of Reggio Emilia	90,634	13.4	89,884	13.4	86,574	14.1
University Hospital Trust of Modena	111,048	12.9	109,903	13.0	110,859	13.2
University Hospital Trust of Bologna	138,205	17.9	135,010	18.9	131,382	19.0
University Hospital Trust of Ferrara	72,795	19.0	72,699	18.5	77,980	18.8
Research Hospital (IRCCS) Rizzoli Orthopaedic Institute of Bologna	46,134	5.2	39,929	5.7	28,129	7.3
Region total	**1,832,659**	**13.9**	**1,823,753**	**13.8**	**1,826,192**	**14.0**

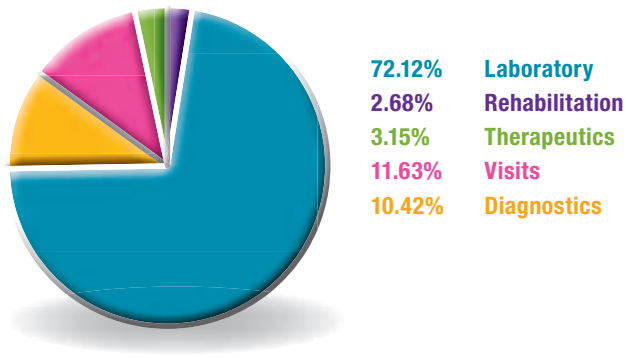
Outpatient specialist care: number of services, type, trend over the years

During 2010 a total of 76,008,277 outpatient specialist attendances were registered, which do not include specialist medical procedures provided during hospital admission.
The increase compared with 2009 was approximately 2 million. The trend is constantly increasing – from 2003 the number rose from 60,132,065 to 76,008,277 in 2010.
The most significant percentage regards, as in past years, laboratories with 72.12%, followed by examinations with 11.63%, diagnostics with 10.42%, therapeutic with 3.15% and rehabilitation with 2.68%. These percentages have basically remained stable over the years.
Following regional indications (resolution 1532/2006), Health Trusts continue also in 2010 to be engaged in the enforcement of the regional plan for containing waiting lists. A new plan was approved by the Regional Board with resolution no. 925 of 27th June 2011, which reaffirms commitments to comply with recommended waiting times (24 hours for urgent cases, 7 days for deferrable urgent cases and 30 and 60 days respectively for planned visits and examinations) paying particular attention to appropriateness throughout the care path, from prescription to treatment *(for further information see Page 60).*
The monitoring of waiting times involves the entire offer, with special attention on delivery times for more critical visits and examinations.
Ex post waiting times, from booking to medical procedure delivery can be consulted on http://ww.tdaer.it

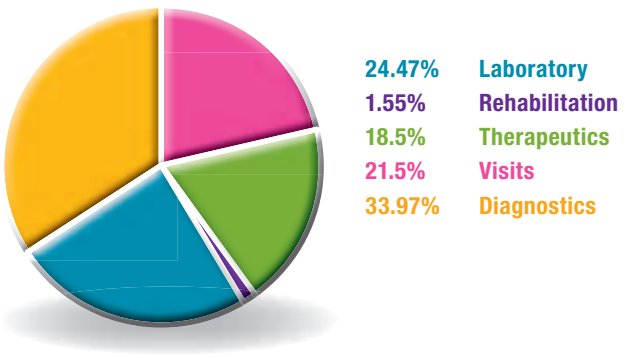
Specialist medical procedures – Period 2003-2010



Type of outpatient medical procedures – Year 2010



Economic value of medical procedures – Year 2010



Specialist medical procedure by type – Year 2010

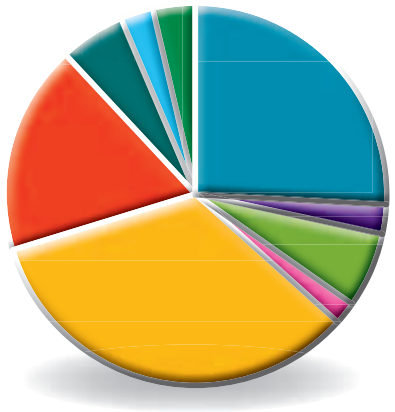
		No. of medical procedures provided	% of medical procedures provided
Visits	First visit	6,066,976	
	Controls	2,695,850	
	Intensive short observation	78,147	
	Total visits	**8,840,973**	**11.63%**
Diagnostics	Instrumental diagnostics with radiations	3,121,041	
	Instrumental diagnostics without radiation	4,351,734	
	Biopsy	82,889	
	Other diagnostics	360,798	
	Total diagnostics	**7,916,462**	**10.42%**
Laboratory	Blood samplings	5,368,722	
	Clinical chemistry	39,041,349	
	Haematology/clotting	7,066,423	
	Immunohaematology and transfusions	157,691	
	Microbiology/virology	2,386,220	
	Anatomy and pathologic histology	627,607	
	Genetics/cytogenetics	172,535	
	Total laboratory	**54,820,547**	**72.12%**
Rehabilitation	Diagnostic rehabilitation	118,367	
	Rehabilitation and functional re-education	1,381,086	
	Physical therapy	446,770	
	Other rehabilitation	92,927	
	Total rehabilitation	**2,039,150**	**2.68%**
Therapeutic treatments	Radiotherapy	359,130	
	Dialysis	441,207	
	Odontology	159,480	
	Transfusions	19,052	
	Outpatient surgery	314,473	
	Other therapeutic treatments	1,097,803	
	Total therapeutic treatments	**2,391,145**	**3.15%**
Regional total		**76,008,277**	**100%**

Care in Family advisory health centres, Youth health centres, health centres for immigrant women and their children

The network of Family advisory health centres in Emilia-Romagna is formed by 219 facilities in which areas are dedicated to specific groups of the population – 31 facilities for young people (for males and females aged between 14 and 19) and 17 facilities for immigrant women and their children (for the recently-migrated population or those with particular difficulty accessing services).
The support team is available in each facility for approximately 70 hours per week (obstetrician, gynaecologist, psychologist and, sometimes, a social worker, in addition to a cultural mediator always present in the facilities for immigrant women).
Between 1995 and 2010 services registered an increase of 29.6%, while the number of users registered an increase of 19.6%. In particular, between 2009 and 2010 services increased by 6% and users by 4.3%.
In 2010 services showed a prevalence of those relating to early diagnosis of female cancers (cervical cancer screening with pap-tests and colposcopies, breast examinations for breast cancer prevention), 33.5% of the total.
Maternity care followed (26.1%): as a consequence of the considerable increase of immigrant population, in the 1995-2010 period an increase in foreign users is registered – from 740 in 1995 to 11,832 in 2010 (10,755 in 2009).
Gynaecological specialist care amounts to 17.8% of the total, contraception 6.5% (29.6% of the users were foreign women), and medical certification for voluntary abortion 2.3%.
A significant increase in pregnancy care counselling was observed in the target population (21,345 in total, 55.4% of which were foreign); attendances for obstetric/gynaecological problems and issues relating to contraception were essentially stable, with a slight drop in users with regard to menopause issues.
Support activity also included health education activities, mainly regarding birth information (approximately 12,500 women/couples were assisted in 2010) and sexual health and AIDS prevention for adolescents (it involved approximately 40,000 subjects between youths and adults).

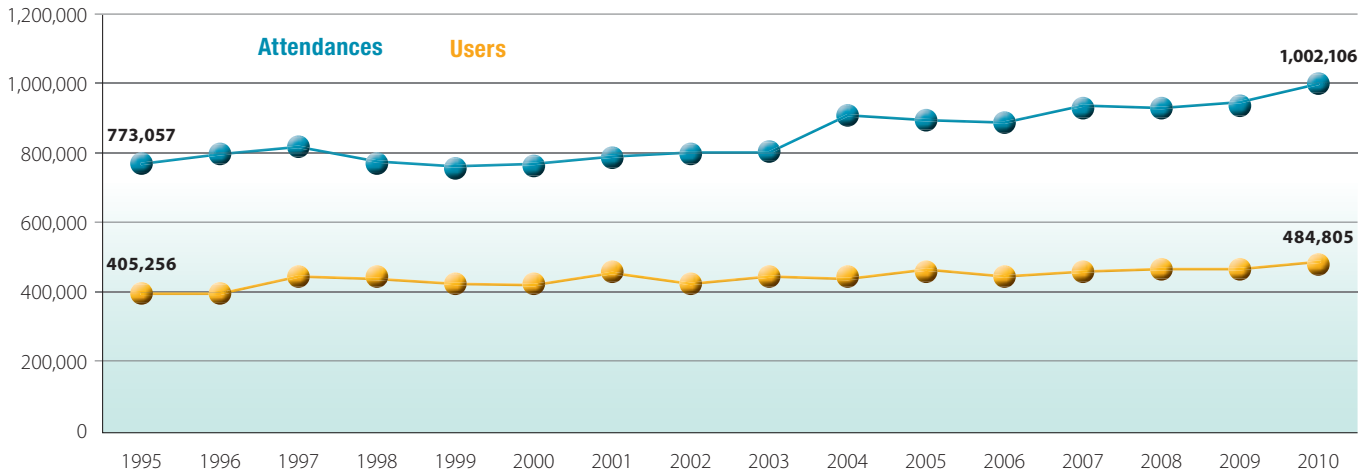
Internet site: http://www.consultoriemiliaromagna.it/

Areas of activity – Year 2010

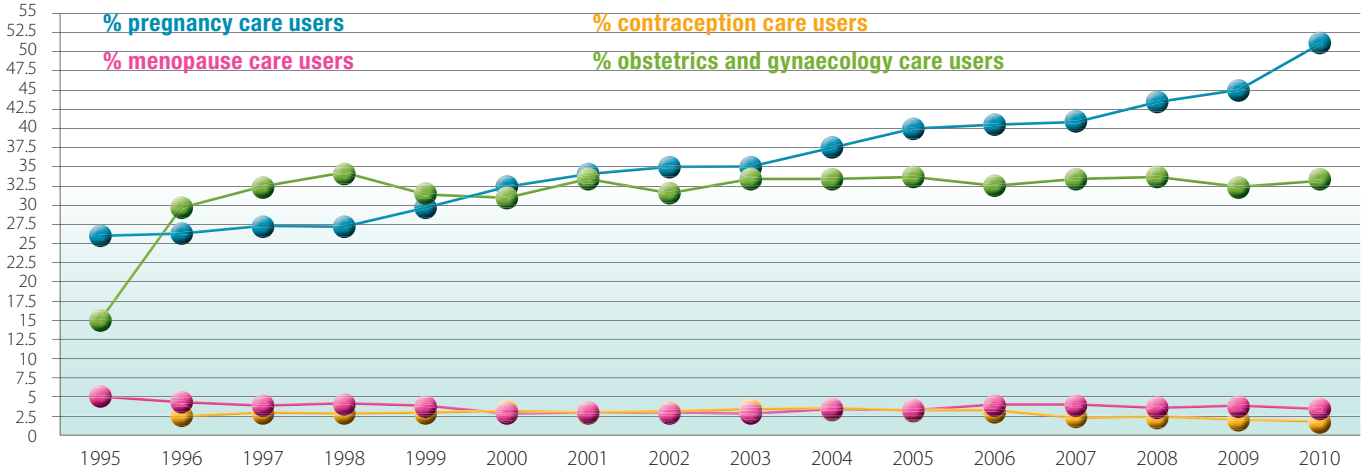


26.1%	Pregnancy
2.3%	Voluntary abortion
6.5%	Contraception
2.0%	Menopause
33.5%	Cancer prevention (screening)
17.8%	Gynaecology
5.6%	Psychological support
2.7%	Breast feeding support
3.5%	Post-natal care

Activity of Family advisory health centres: users and attendances – Period 1995-2010



% service users in target population* – Period 1995-2010

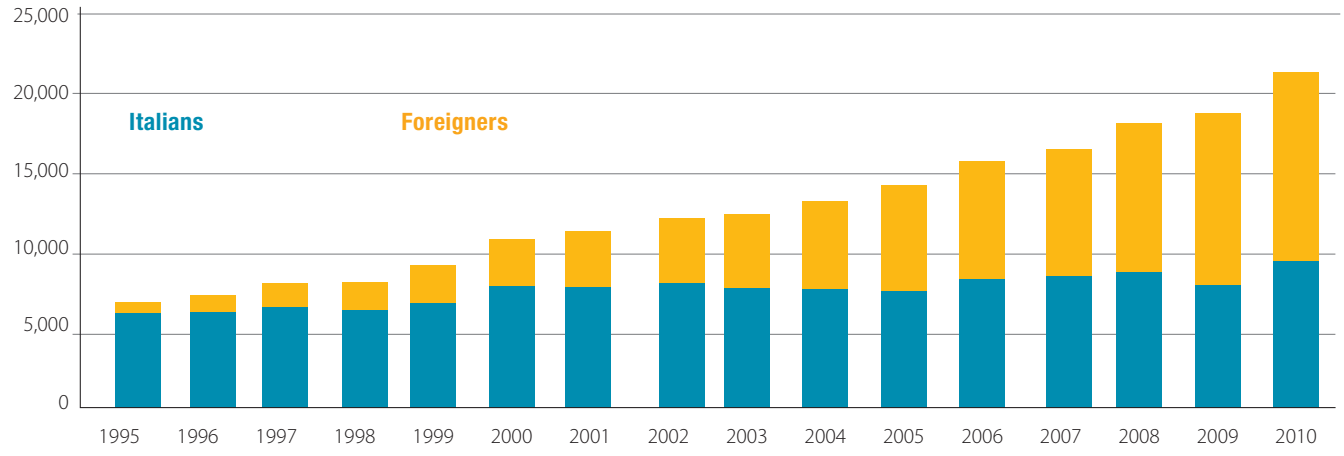


(*) Target population: obstetrics and gynaecology = women aged 15-64 (1,426,687 as of 31/12 2010). Menopause = women aged 45-64 (619,517 as of 31/12/2010). Contraception = women aged 15-49 (983,610 as of 31/12 2010).

Pregnancy care for Italians and foreigners – Period 1995-2010

Year	Italians	Foreigners	Total	% of foreigners
1995	6,329	740	7,069	10.5%
1996	6,400	1,050	7,450	14.1%
1997	6,770	1,396	8,166	17.1%
1998	6,541	1,747	8,288	21.1%
1999	6,949	2,343	9,292	25.2%
2000	7,997	2,869	10,866	26.4%
2001	7,858	3,546	11,404	31.1%
2002	8,216	4,075	12,291	33.2%
2003	7,824	4,592	12,416	37.0%
2004	7,781	5,542	13,323	41.6%
2005	7,747	6,590	14,337	46.0%
2006	8,420	7,472	15,892	47.0%
2007	8,579	7,933	16,512	48.0%
2008	8,859	9,357	18,216	51.4%
2009	8,054	10,755	18,809	57.2%
2010	9,513	11,832	21,345	55.4%

Pregnancy care for Italians and foreigners – Period 1995-2010



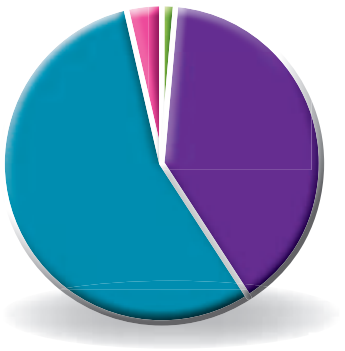
Home care

In 2010 the number of home cared patients amounted to 97,354, +8,047 compared with 2009 (89,307).
This number has constantly increased continually the years; in 2001 they amounted approximately to 55,000. Also the number of patients handled increased to 126,033 in 2010 (108,237 in 2009), confirming a growing trend, while home visits by health professionals rose from 2,392,808 in 2009 to 2,525,799 in 2010.
Considering the specific rates by age group, people aged over 80 use home care services the most – 177 for every 1,000 inhabitants in the 80-84 age group (159 in 2009), 309 in the 85-89 age group (272 in 2009), and 484 in the 90 and above age group (406 in 2009).
The rate per 1,000 inhabitants out of the total population is 28 people (25 in 2009).
The home care system takes care of people who need help with daily activities or people at risk of non self-sufficiency, who have clinical conditions that can be treated at home, live in suitable conditions and can be supported by the family or neighbours. This form of care aims at avoiding improper use of hospital admissions, while guaranteeing continuity of care, enhancing autonomy and relational abilities, supporting families, simplifying access to aids.
Support to home care is one of the priorities of the Regional Fund for non self-sufficient people.

People cared for in 2010: 97,354

People handled in 2010: 126,033

Type of home care



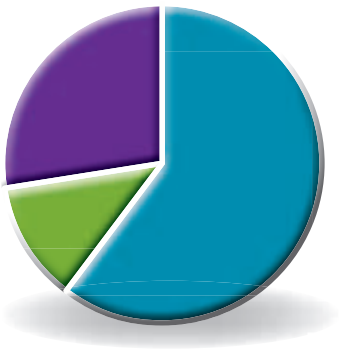
55.6%
general medical care

39.5%
nursing care

1.4%
non-profit care

3.5%
social-health care

Levels of care intensity

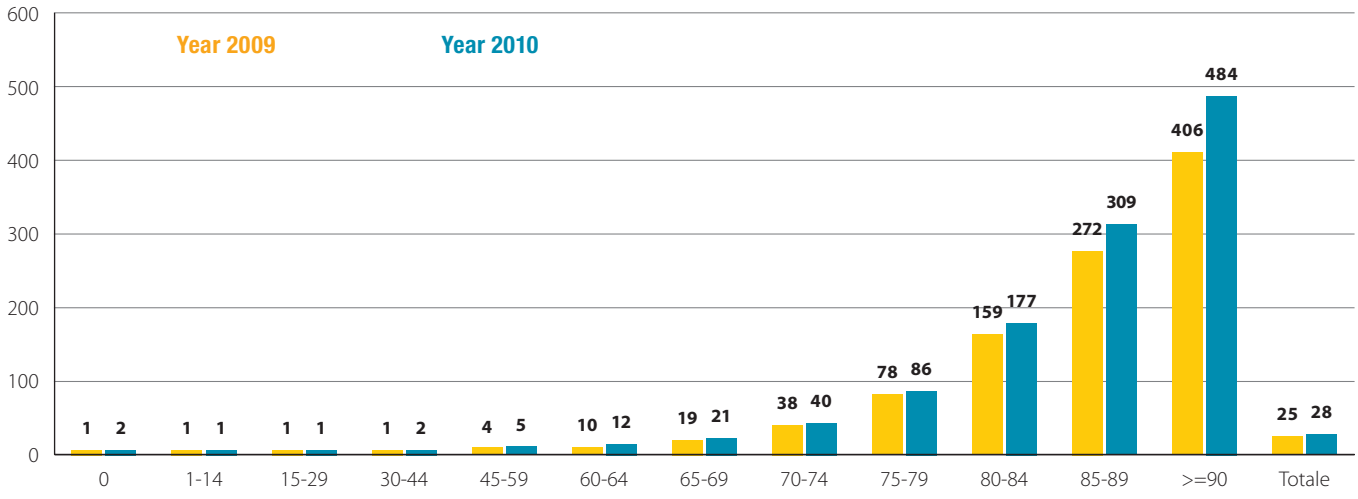


60.6%
low intensity

27.4%
medium intensity

12.1%
high intensity

Home cared people, specific rates by age per 1,000 inhabitants – Period 2009-2010



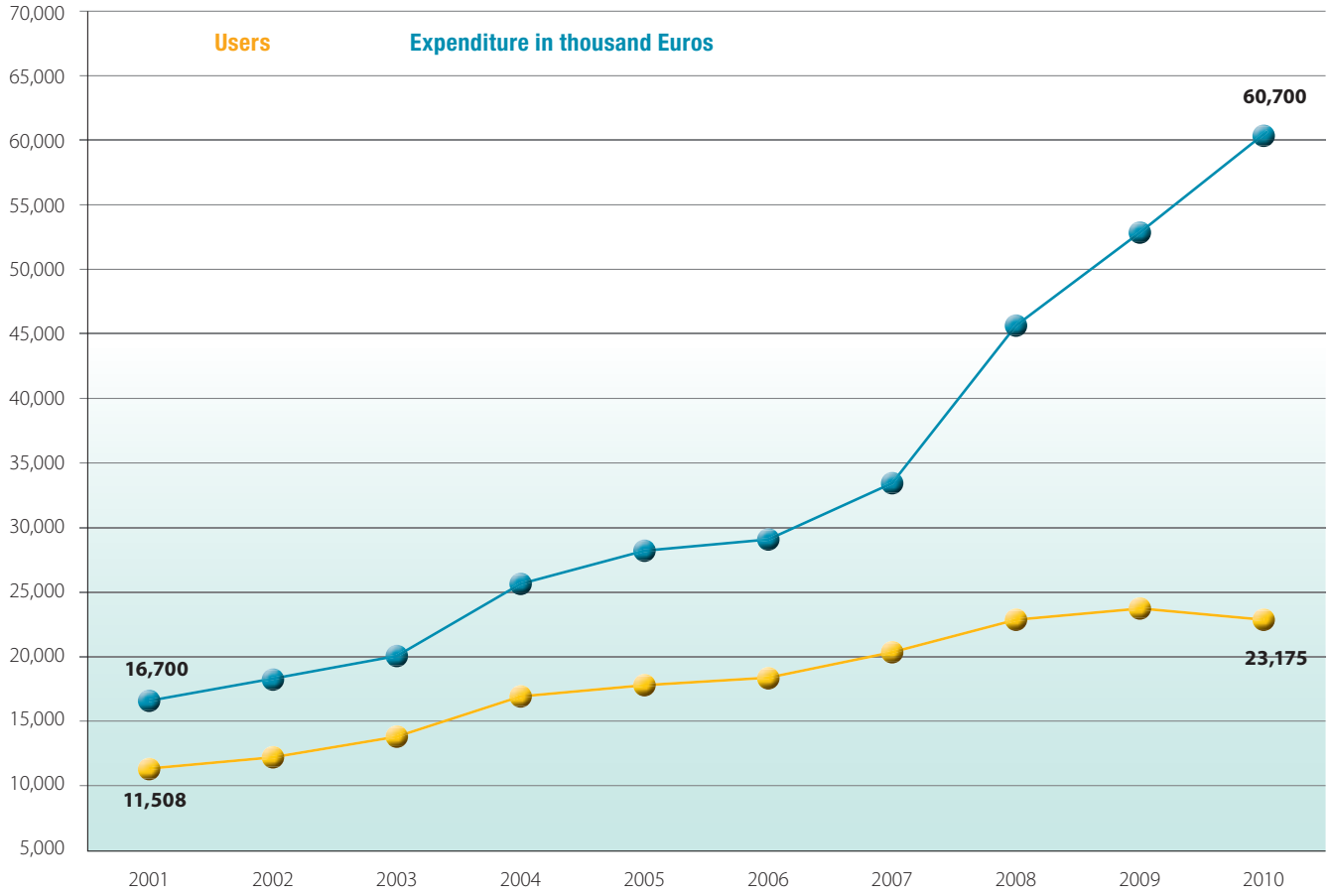
Care allowances

In 2010 in Emilia-Romagna 23,175 people benefited from care allowances, 21,412 of whom were elderly and 1,763 disabled, showing a slight decrease with respect to 2009 when they amounted to 24,190 in total. Most beneficiaries are individuals aged over 85 years (45.5% of the total) and disabled adults. The rate per 1,000 inhabitants is equivalent to 6.8. The specific rate in the over 90 age group however reaches approximately 140 for every 1,000.
Overall, the information on care allowances in 2010 confirms services' ability to respond to this part of population's needs, which was made possible by the consolidation of resources for non self-sufficiency.

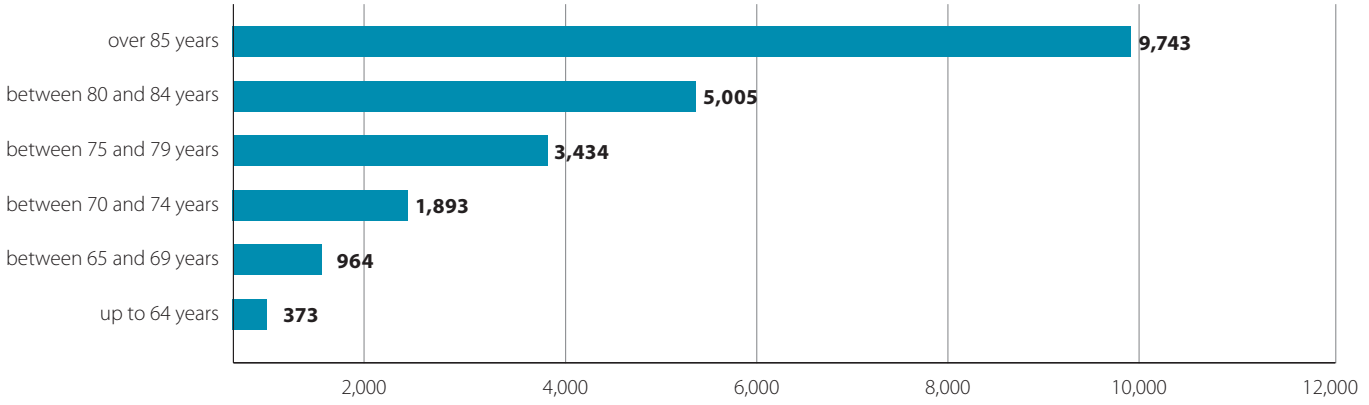
Expenditure in 2010 was approximately 60.7 million Euros in all for care allowances and additional allowances for family assistants. 6,768 people received the additional contribution of 160 Euros aimed at the regularization of their family assistant, +1,642 compared to 2009 (specific expenditure amounts to approximately 6.6 million Euros). This significant and constant increase over the years is the result of the increased assessing and handling ability of welfare services, even if the long-term effects of the risen limits to access allowances (now set at 15,000 Euros) are still to be considered.

People who benefited from care allowances in 2010: 23,175

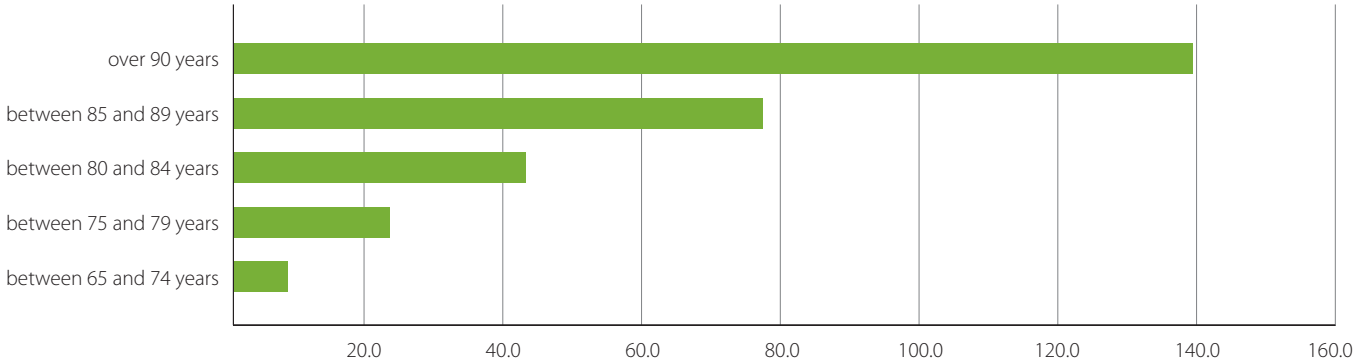
Users and expenditure – Period 2001-2010



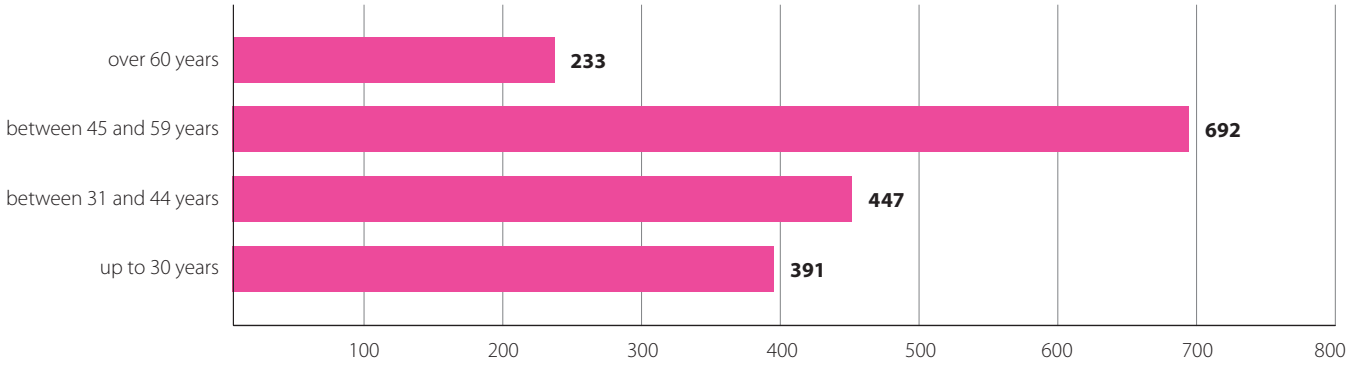
Elderly who benefited from care allowances by age – Year 2010



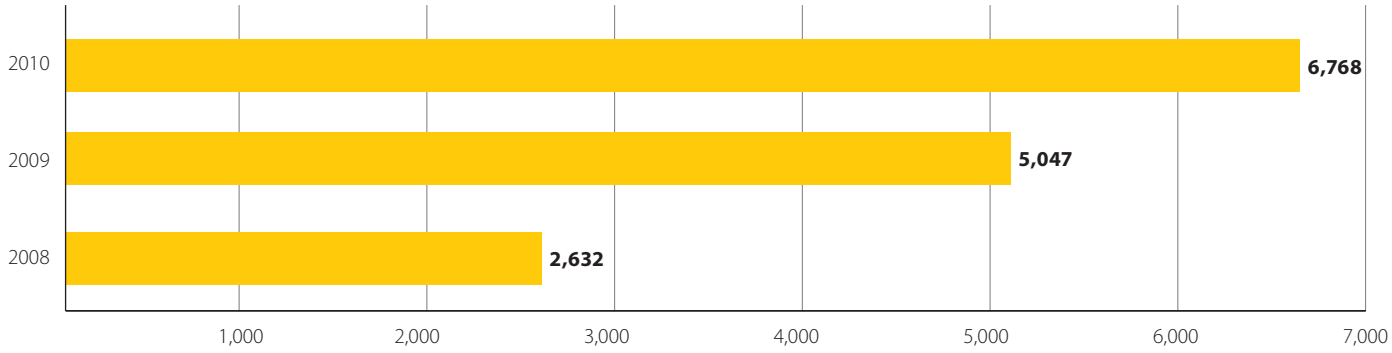
Elderly who benefited from care allowances by age – Specific rate per 1,000 inhabitants – Year 2010



Disabled who benefited from care allowances by age – Year 2010



People who benefited from contributions for their family assistant – Period 2008-2010



Residential care for elderly, people with disabilities, mental health problems, addictions

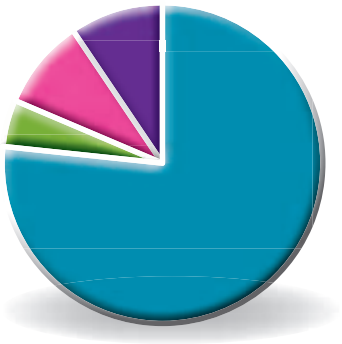
As of 31st December 2010 there were 28,295 Regional Health Service-funded residential and semi-residential places in the social-health and healthcare service network for the elderly, people with disabilities, mental health problems, pathological addiction (20,255 in residential facilities and 8,040 in semi-residential facilities), little more than in 2009 when they amounted to 28,136.
Of the 20,255 places in residential facilities, 76.6% were for the elderly (75.1% in 2009), 9.5% for the disabled (9.1% in 2009), 9.1% for people with mental health problems (9.1% in 2009), and 4.8% for people with addiction problems (6.6% in 2009). Of the 8,040 places in semi-residential facilities, 48.3% were for people with disabilities (47.6 in 2009), 36.9% for the elderly (as in 2009), 12.8% for people with mental health problems (13.1% in 2009) and 2% for people with pathological addictions (2.5% in 2009).
The network of residential and semi-residential structures is involved in a process of further qualitication for services devoted to non self-sufficient people, as provided for in the allocation programs on the Regional Fund for non self-sufficient people.

Focus on the elderly in residential and semi-residential facilities

In particular, the information system has provided specific data regarding the elderly in residential and semi-residential facilities. There were 24,055 elderly in residential facilities who were mainly in the "great old" age group between 85 and 89 years (29.2%) and over 90 (27.3%). An analysis of residents' gender revealed that women accounted for 71% of the total. Average age was 85 years.
The rate of admission to residential structures per 1,000 inhabitants was equivalent to 6. However, the rate in the over 90 age group approximately reached 165 every 1,000. Furthermore, for people aged over 90 years, the use of semi-residential services (day centres) was significant: 16 elderly aged over 90 years out of 1,000 attended day centres.

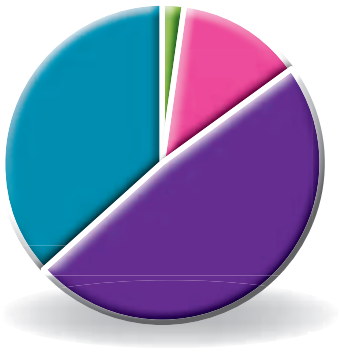
Residential and semi-residential places – Year 2010: 28,295

Residential facilities as of 31/12/2010



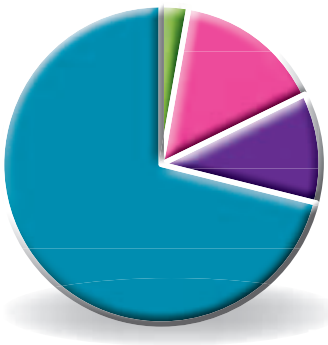
76.6% Elderly people
9.5% Disabled people
9.1% Psychiatric patients
4.8% Patients with addiction

Semi-residential facilities as of 31/12/2010



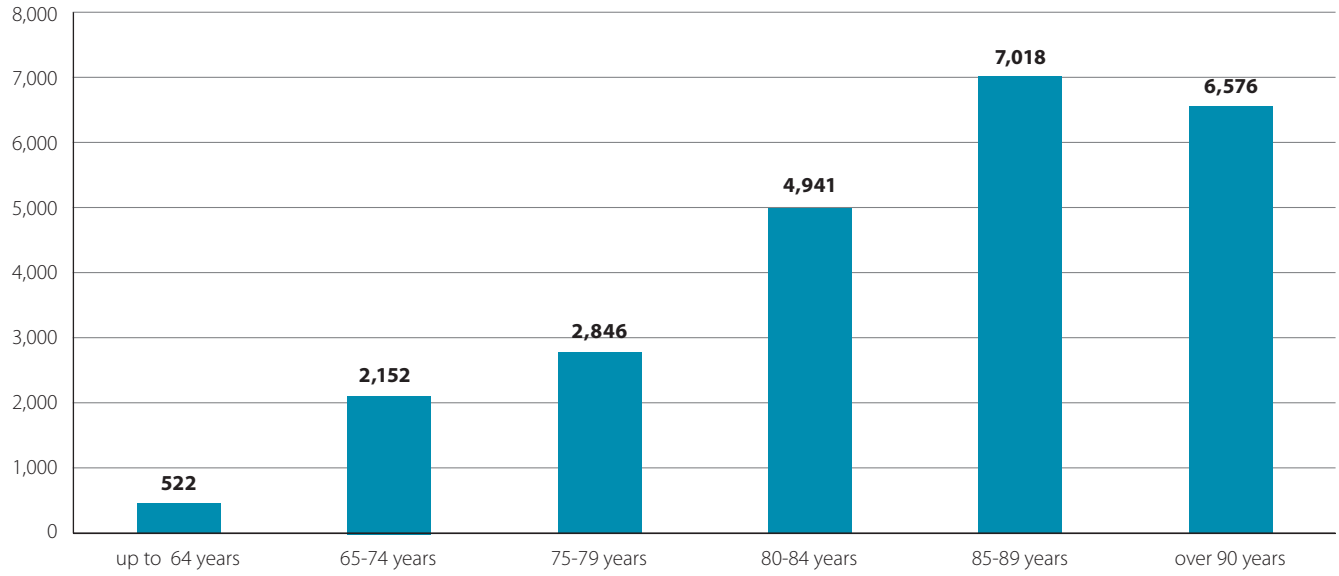
36.9% Elderly people
48.3% Disabled people
12.8% Psychiatric patients
2.0% Patients with addiction

Admissions to residential facilities by type of stay – Year 2010

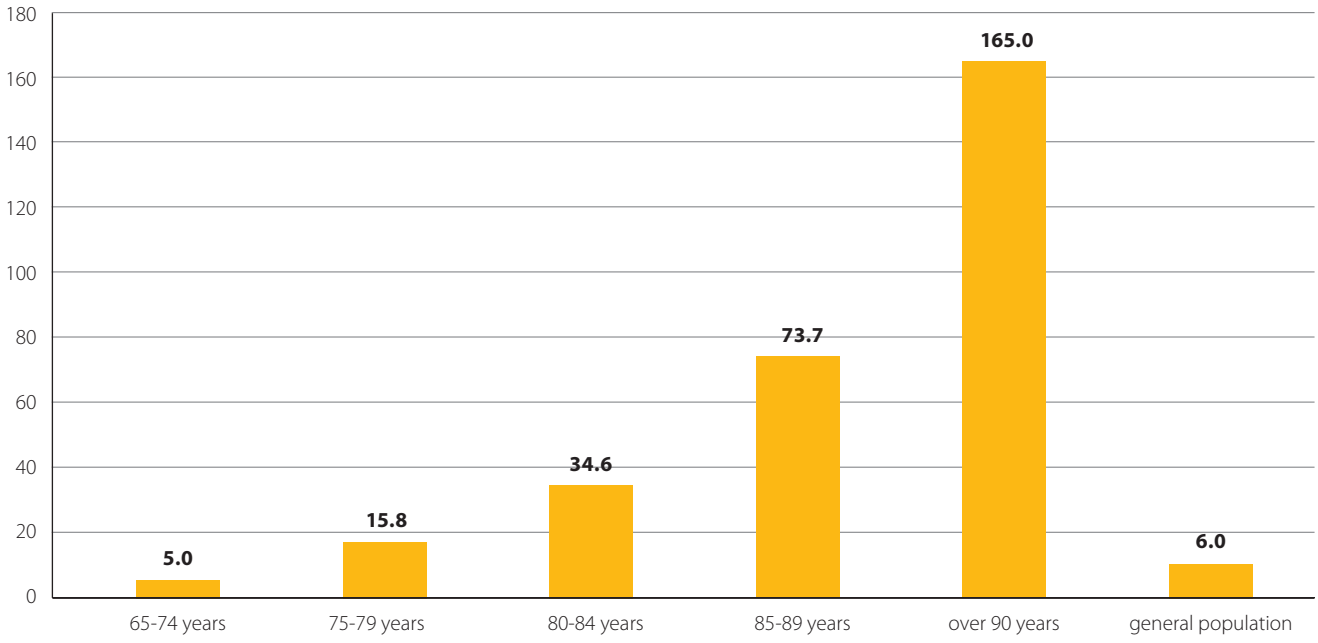


71% Long-term stay
11% Temporary relief stay
15% Recovery/rehabilitation following hospital discharge
3% Temporary stay for people with significant cognitive and behavioural deficit

Number of people in residential facilities by age – Year 2010



People admitted to residential facilities: specific rate per 1,000 inhabitants by age – Year 2010



Hospice care

In 2010 there were 20 hospices offering 241 beds. 3,937 people were admitted in 2010, 100 more compared to 2009. The hospice network in Emilia-Romagna has registered a continual growth – in 2006 there were 14 hospices with 170 beds. In 2011 a new hospice was opened in Piacenza with 15 beds *(not included in the table which reports data as of 31st December 2010).*

Hospices are part of the Regional Health Service care system. They are directly managed by Health Trusts or by non-profit volunteer associations through specific agreements with the Health Trusts. They guarantee personalized care including pain treatment and psychological support. Family areas are provided in in-patient rooms.

Hospices: beds, patients, average stay – Period 2009-2010

Health Trust	Hospice	Year 2009			Year 2010		
		Beds	Patients	Average stay (days)	Beds	Patients	Average stay (days)
Local Health Trust of Piacenza	Borgonovo Valtidone	10	167	18.17	10	165	20.3
Local Health Trust of Parma	Borgotaro	8	84	29.95	8	83	29.01
	Langhirano	10	110	22.84	10	113	27.31
	Fidenza	15	171	24	15	192	24.26
	Piccole Figlie	8	112	25.14	8	108	28.19
Local Health Trust of Reggio Emilia	Madonna dell'Uliveto di Albinea	12	243	17.69	12	209	19.95
	Guastalla	14	159	16.6	14	190	17.32
University Hospital Trust of Modena	Polyclinic of Modena	10	258	13.2	10	238	15.08
Local Health Trust of Bologna	Chiantore Seragnoli	30	652	15.26	30	593	15.98
	Bellaria	13	249	16.76	13	293	14.14
Local Health Trust of Imola	Castel San Pietro	12	194	20.71	12	191	19.58
Local Health Trust of Ferrara	Ado	12	226	17.58	12	239	16.99
	Codigoro	11	220	16.45	11	218	16.83
Local Health Trust of Ravenna	Lugo (*)	8	100	24.8	8	23	31.26
	Ospedaliero Lugo	10	5	10.8	10	126	23.33
	Faenza	-	-	-	15	108	29.41
Local Health Trust of Forlì	Forlimpopoli	11	277	13.87	11	291	13.04
	Dovadola	8	170	16.4	8	147	18.81
Local Health Trust of Cesena	Savignano sul Rubicone	14	213	19.26	14	223	18.48
Local Health Trust of Rimini	Rimini	10	227	12.58	10	187	15.1
Total		**226**	**3,837**	**17,51**	**241**	**3,937**	**18.8**

(*) Closed in August 2010 when the hospice in Lugo Hospital opened.

Mental health services for adults and minors

Mental health services for both adults and young people operate in connection with other services in the health and social care network, and in conjunction with family associations, volunteers, and local institutions, as provided for in the 2009-2011 Mental Health Implementation Plan (Regional Government resolution 313/2009). They deal with the promotion of mental health and prevention, diagnosis and treatment pathways, rehabilitation and social re-integration, throughout a person's lifetime.

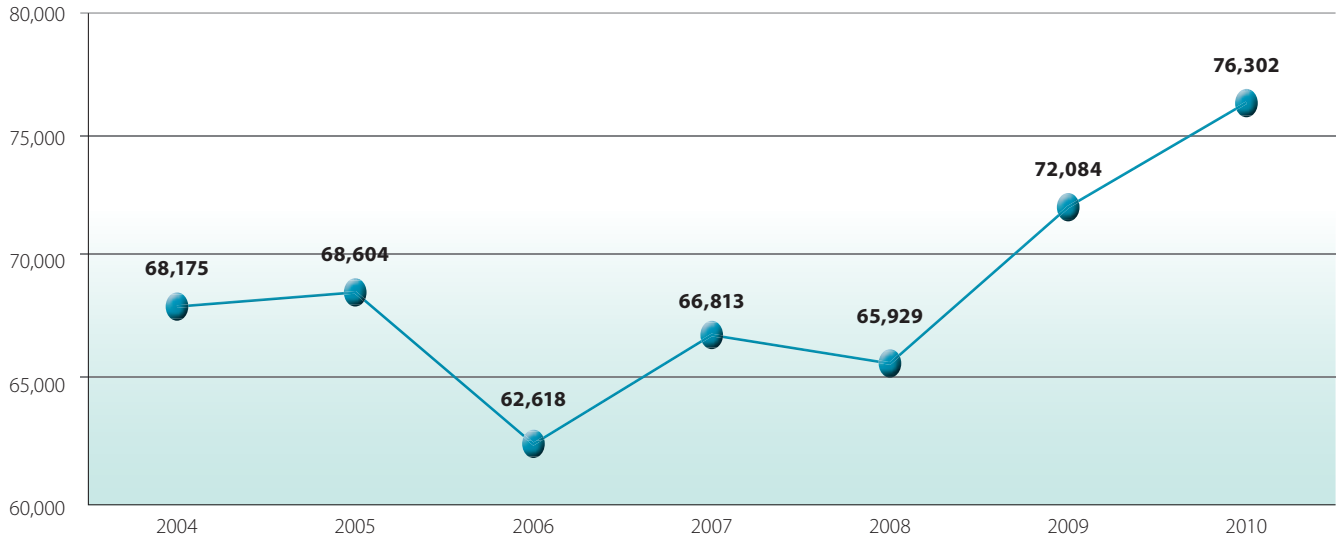
With regard to adults, during 2010 growth trends were confirmed for patients under treatment at mental health centres, with a figure of 76,302 (72,084 in 2009). The analysis of users' gender shows that that women form the majority, 58% of the total. The most represented age groups are people aged 18-44 years (39%) and 45-64 years (38%), with a considerable amount of people over 65 (12%) and over 75 (10%).

Minor patients are treated at Neuropsychiatric Services for Children and Adolescents. These services deal with prevention, diagnosis, treatment and rehabilitation of neuropsychiatric conditions during childhood and adolescence, ranging from behaviour and speech conditions to autistic disorders.

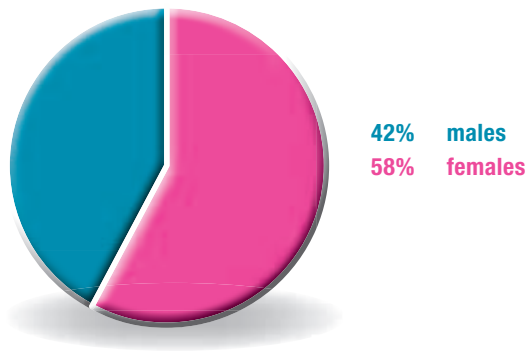
In 2010 the new information flow started to work regularly, enabling the detailed analysis of the characteristics of children who use community services, though it does not allow accurate comparison with previous years due to various methods of data collection.

In 2010 minors admitted to Childhood and Adolescence Neuropsychiatry Services were 38,263 in all, 63% male and 37% female. Access to the services is particularly evident in the 4 to 10 age group, during the developmental and learning phases in which neurological, psychiatric and cognitive problems are more evident, while it progressively drops down with age increase.

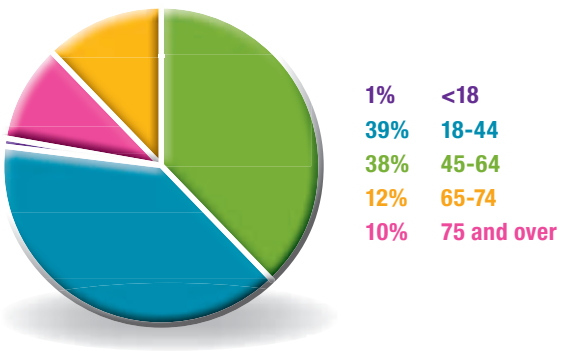
Adults treated in Mental Health Units in Emilia-Romagna – Period 2004-2010



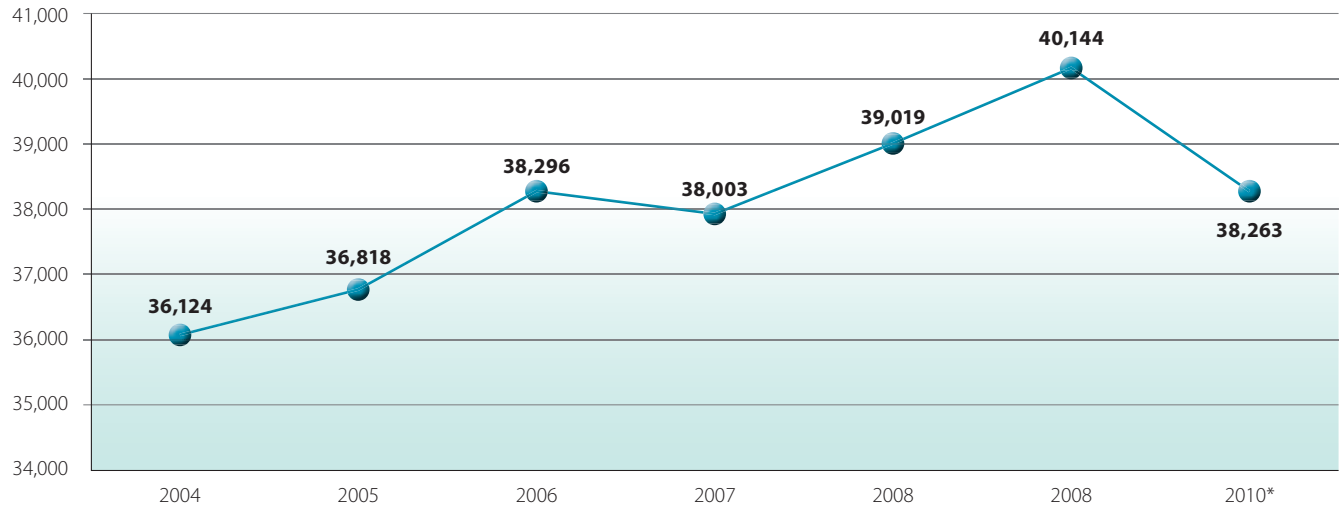
Adults treated in Mental Health Units by gender % values – Year 2010



Adults treated in Mental Health Unit by age % values – Year 2010

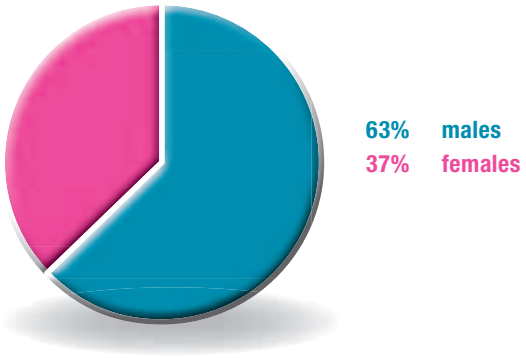


Minor patients treated at Neuropsychiatric Services for Children and Adolescents
Period 2004-2010

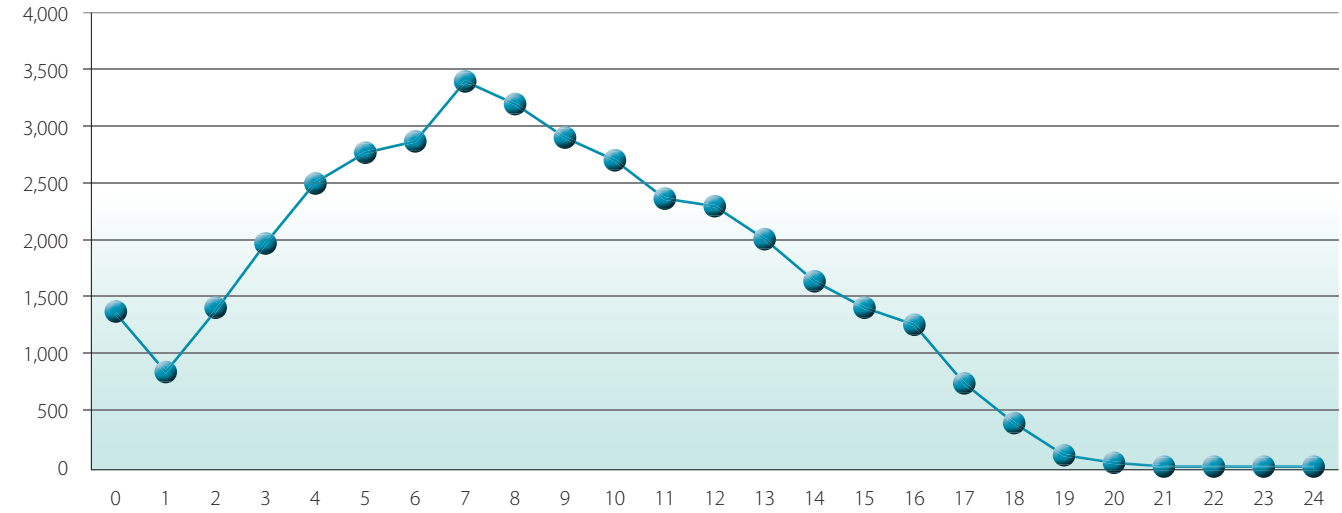


** The decrease in users number in 2010 can be attributed to the activation of the regional information flow on infantile neuropsychiatry in childhood and adolescence which defines new methods for counting users with respect to the past (children with open medical files and services).*

Minor patients treated at Childhood and Adolescence Neuropsychiatry Services by gender
% values – Year 2010



Minor patients treated at Childhood and Adolescence Neuropsychiatry Services by age
Period 2004-2010*

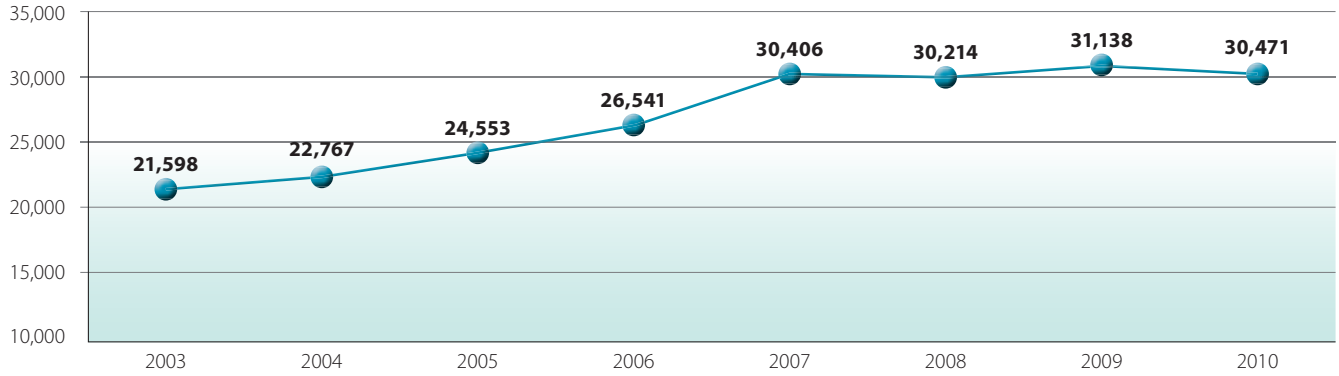


** In the Childhood and Adolescence Neuropsychiatry Services some users continue the treatment also after 18 years of age for various reasons: treatment continuity (e.g. psychotherapy), end of scholastic period (e.g. users with certification of disabilities who still attend school), situations regarding transfer preparation to other services.*

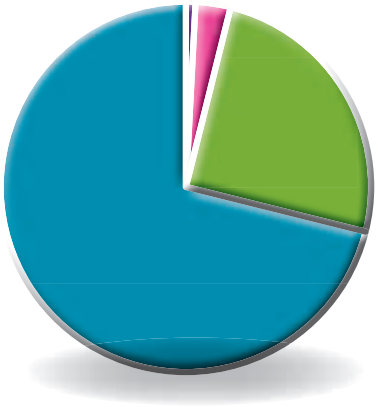
Substance Abuse Services

Care for people with pathologic addictions is provided by an integrated system that involves Health Trusts (with the Substance Abuse Services, SerT), non-profit organizations, Local Authorities, and volunteers. The typology of substance abuse treated by Substance Abuse Services included problems relating to drugs and/or medicines (71% of the total number of service users), alcohol (25%), tobacco (3%) and pathological gambling (1%).
A total of 30,471 people were treated at Substance Abuse Services in 2010, a little lower than in 2009 (31,138), whereas day attendance in non-profit organizations slightly increased against a fundamentally unchanged number of people included – in 2010 there were 327,557 days of attendance against 317,128 in 2009.
Detailed information on users accessing Substance Abuse Services is available on the Regional Program for pathologic addiction's website http://www.saluter.it/dipendenze/

People treated at Substance Abuse Services – Period 2003-2010



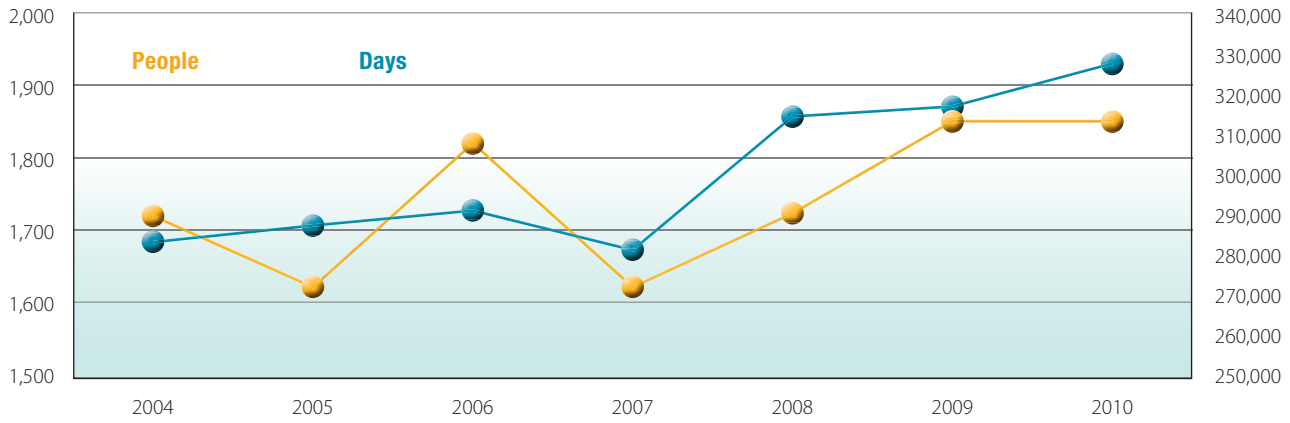
Type of pathologic addiction/problem for users treated at SerT - % values – Year 2010



1% gambling
3% tobacco*
25% alcohol
71% drugs or medicines

** Only tobacco addicts admitted at Substance Abuse Services, other regional anti-smoking centres are not counted.*

People in residential and semi-residential facilities and attendance days - % values Period 2004-2010



Services for senile dementias

To create a network of social-health services involving Local Health Trusts, Local Authorities, associations of family members and volunteers: this is the Region's aim to support dementia patients and their families throughout the entire course of their disease, and to favour the achievement of the best quality of life possible.

More than 10 years after the start of the project, a network of Family advisory health centres/Centres for the diagnosis and care of dementia, with multidisciplinary teams is now operating (in 2010 there were more than 270 professionals and healthcare personnel involved). These facilities work in conjunction with Local Authorities, volunteers and families. Senile dementia is a chronic/degenerative condition for which there is currently no cure.

The network of services provides pharmacological intervention which delays the progress of cognitive deficit, patient and family-oriented programs (such as cognitive stimulation, support groups and self-help groups), specialist counselling, training, information and socialisation initiatives, other care and financial assistance (e.g. temporary "relief" care, care allowances and family assistants contributions), and initiatives which are also guaranteed through the financial support of the Regional Fund for non self-sufficient people.

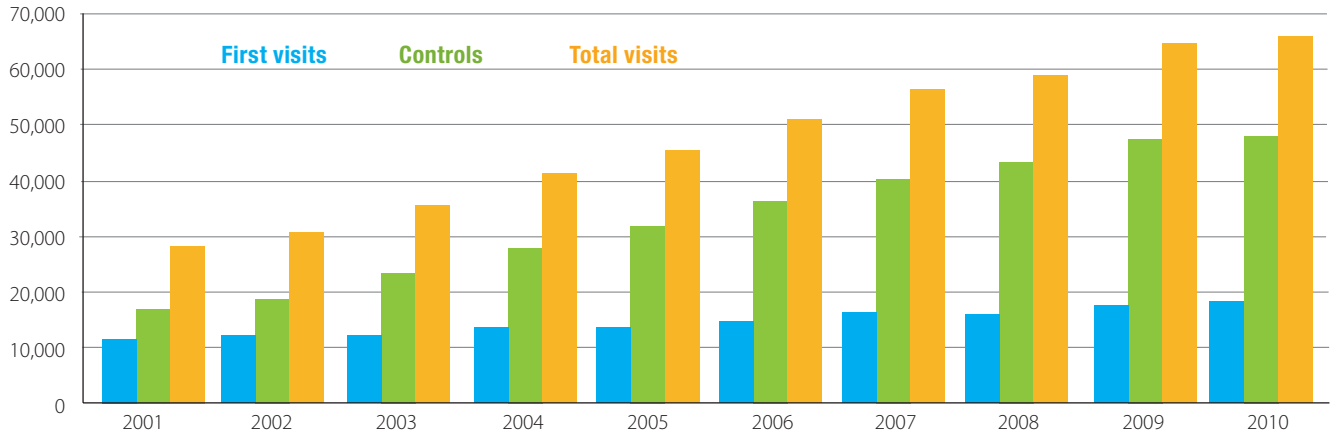
In 2010 65,615 visits were performed (64,600 in 2009). There were 18,017 new service users (17,300 in 2009) and 80% of them received community care. Relatives were offered 17,098 specialist consultations (17,709 in 2009).

In 2010 some initiatives addressed to relatives and patients were implemented – more than 60,000 people were involved in information and training initiatives, support and self-help groups, and activities in the "Alzheimer Cafes" (45 at the end of 2010). These are often run by associations of family members and provide cognitive stimulation, socialisation activities, and an opportunity for families to share their problems with others in similar situations.

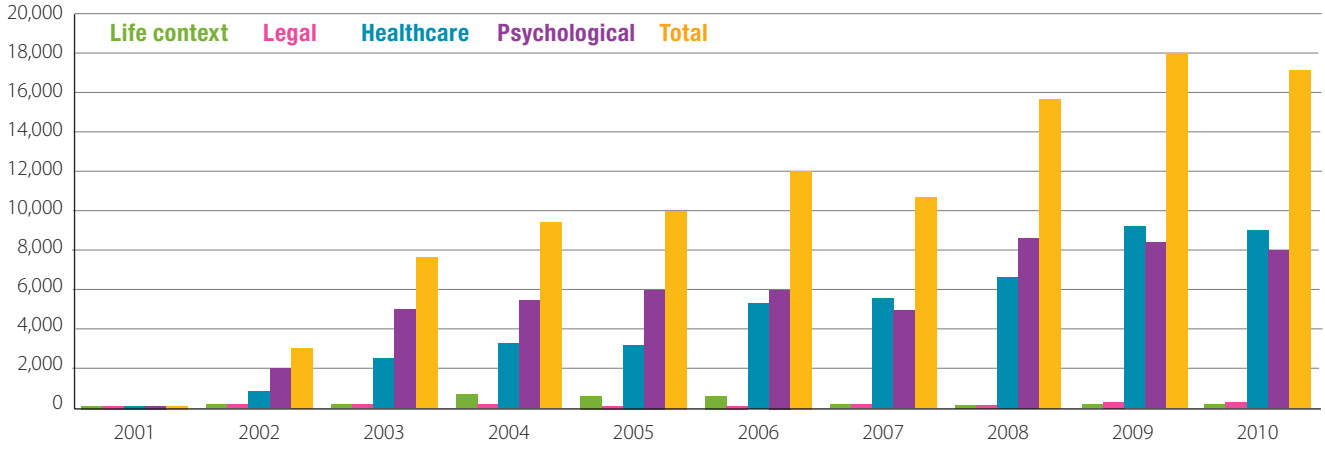
The 53 Family advisory health centres are distributed in the whole Region: 6 in Piacenza, 4 in Parma, 8 in Reggio Emilia, 9 in Modena, 10 in Bologna, 1 in Imola, 7 in Ferrara, 4 in Ravenna, 1 in Forlì, 2 in Cesena, and 1 in Rimini.

In 2010 a study on the organisational models of Family advisory health centres for dementia was carried out, aimed at improving care through the standard implementation of good practices throughout the regional territory. Multidisciplinary work groups have been set up to prepare regional guidelines.

Visits – Period 2001-2010



Specialist consultations for family members – Period 2001-2010



Donations and transplants of organs, tissues, cells, cord blood

Donations

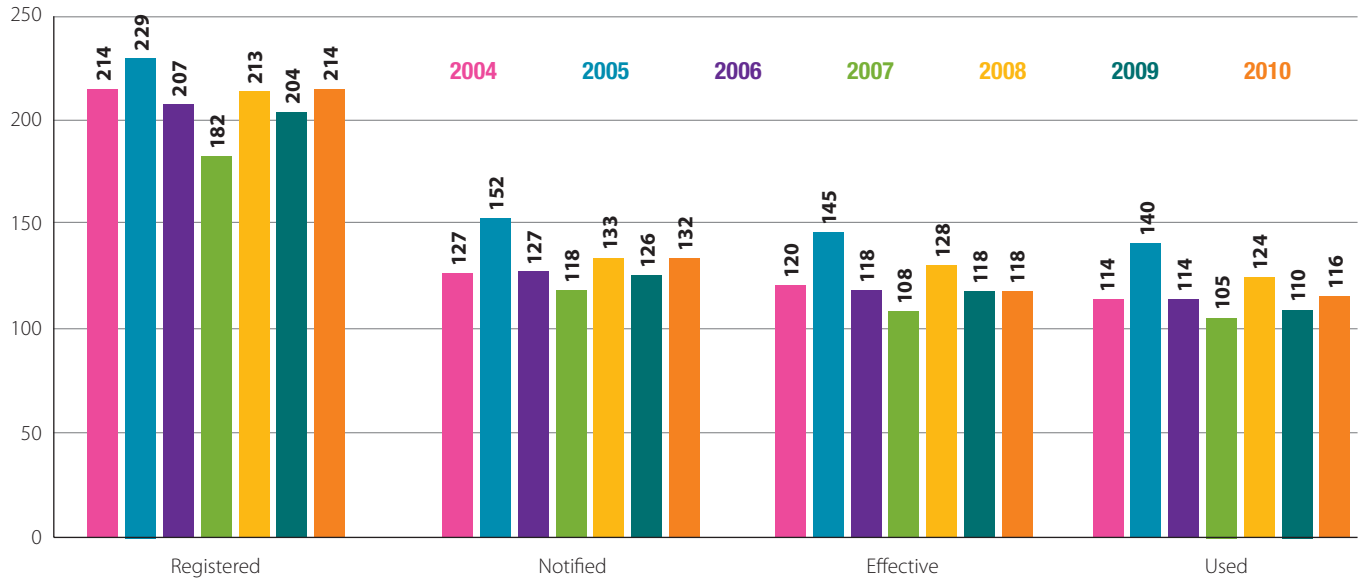
In 2010 in Emilia-Romagna the number of effective donors were 116, 26.7 per million population (25.7 in 2009), thus confirming the Region as above the Italian average (18.2 in 2010, 19.6 in 2009). In 2010 in Emilia-Romagna the average age of used donors was higher than ever – 60.7 years (59.2 in 2009).

58 oppositions to donations were registered (27.1%, below the national average of 31.5%). The age group which involved most oppositions was between 35 and 44 years.

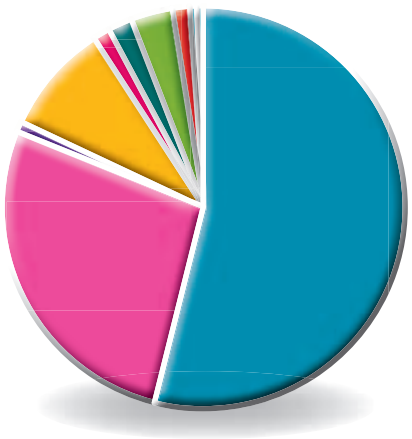
In 2010, 1,237 corneas, 51 skin segments, 117 blood vessels, 42 heart valves and 1,014 osteotendinous segments were donated in the region. 392 units of cord blood were also collected at the Regional Bank, to be used in transplant for children with leukaemia.

Activities to make citizens aware of the importance of donations are carried out through the regional campaign "A Conscious Choice", with the coordination of the Emilia-Romagna Transplant Centre and the co-operation of Health Trusts, volunteers' and patients' associations.

Donors (registered, notified, effective, used) – Period 2004-2010



Potential donors registered in Emilia-Romagna – Year 2010



54.2%	used
27.1%	oppositions
0.9%	cardiac arrest
8.9%	post-anamnesis ineligibility
1.4%	pre-transplant ineligibility
1.9%	suitable when entered theatre and not removed due to donor pre-transplant ineligibility
3.3%	suitable when entered theatre and not removed due to organ disease
1.4%	suitable, did not enter theatre due to unavailability of compatible recipient
0.5%	effective donors not used because of their pre-transplant ineligibility
0.5%	effective donors not used because of organ ineligibility
0.0%	oppositions by Public Prosecutor's Office

Transplants

In 2010, 297 people received transplants in Emilia-Romagna and 325 organs were used (320 in 2009). In detail:

- 150 kidney transplants, 127 from dead donors (of which 107 single, 11 double, 1 combined with pancreas and 8 combined with liver);
- 127 liver transplants, 126 from dead donors (of which 8 combined with kidneys, 1 combined with heart and 1 in multivisceral transplant) and 1 from a living donor (domino transplant from donor with amyloidosis, undergoing himself a liver transplant – amyloidosis is a liver disease which takes decades to seriously damage health, and therefore allows this type of donation in recipients who are at least 60 years old, giving excellent life expectancy till more than 90 years old);
- 26 heart transplants, 1 of which combined with liver and 1 with bilateral lung;
- 2 intestine transplants, 1 multivisceral transplant (stomach, duodenum, intestine, pancreas and liver);
- 2 lung transplants (both bilateral and 1 combined with heart).

Tissue transplants included: 491 corneas, 12 heart valves, 46 blood vessels, 152 skin segments, 491 bone segments and 2,576 processed bones; 88 allogeneic bone marrow transplants and 331 autologous bone marrow transplants were also performed.

In 2010, 9 units of cord blood collected in Emilia-Romagna were used in transplants: 5 in Italian haematology centres, 2 in European haematology centres (Austria and Germany), 1 in the United States and 1 in Australia.

In Emilia-Romagna active unified waiting lists for kidney and liver transplants are available.

Patients on waiting lists as of 31st December 2010 numbered 1,340 for kidney transplants, 55 for heart transplants, 244 for liver transplants, 21 for intestine transplants, 10 for lung transplants and 3 for combined heart and lung transplants. Waiting times in 2010 were little more than 3 years for a kidney transplant (in line with the national figure), little more than a year for a heart transplant (Italian average approximately 2.4 years), between 1.8 and 2.4 years for a liver transplant (at national level approximately 2 years), 1.8 years for a lung transplant (at national level just under 2 years), and 2.5 years for a combined heart and lung transplant.

Survival rates in Emilia-Romagna: for kidney transplants, 98.1% after 1 year from the operation (97.8% at national level); for heart transplants, 90.6% after 1 year from the operation (Italian average 85.4%); for liver transplants, 87% after 1 year from the operation (87.1% at national level). Survival rates after 5 and 10 years from transplants are in line with national figures.

Projects to improve transplant activities

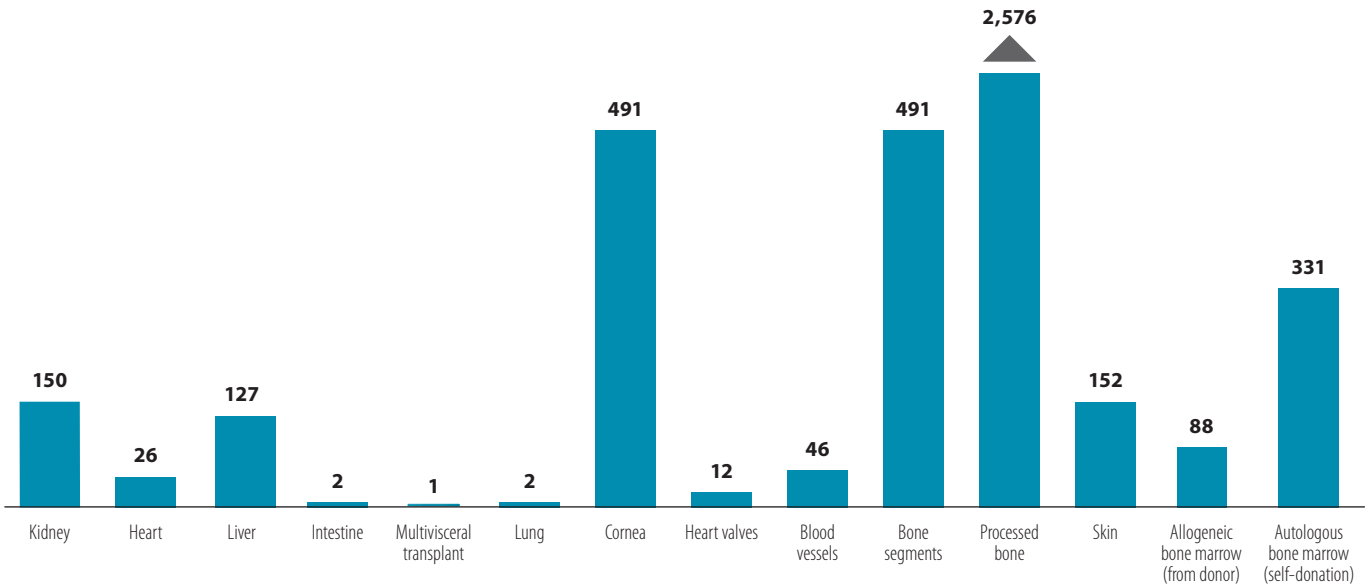
The "LifePort" project entails the use of a perfusion machine for donated kidneys in the period between removal and transplantation, in order to prevent the delay or loss of functional recovery of the transplanted organ. In 2010 more than 90% of eligible kidneys for transplantation underwent perfusion techniques. Emilia-Romagna is the only region where this technique is used.

The "Adonhers" project aims at increasing the number of potential heart donors and studies suboptimal donors to achieve a better evaluation of their eligibility before transplants, using an investigation technique (pharmacological stress echocardiography with dipyridamole) to accurately check the organ functional qualities. The project is being implemented in Emilia-Romagna and Tuscany; its extension to all regions was recently approved by the Ministry of Health.

The project for kidney disease progression prevention (Prevenzione Insufficienza Renale Progressiva – PIRP) involves approximately 10,000 individuals already enrolled in the regional register, who are followed by nephrologists and general practice physicians with standard treatment strategies to delay, if not avoid, the use of dialysis and therefore the need for a transplant.

Internet site: **http://www.saluter.it/trapianti**

Transplant of organs, tissues and cells in Emilia-Romagna – Year 2010



Blood collection and consumption

Blood collection increased more compared with 2009 increase on 2008 (when it was 0.5%): 253,500 whole blood units were collected in 2010, an increase of 2% with respect to 2009 (248,662). After a drop during the previous year, Emilia-Romagna's contribution to Regions that could not meet their requirements increased again: 3,505 units of blood were transferred to needy Regions in 2010, an increase of 3.6% compared with 2009 (3,382).
Emilia-Romagna's blood services can count on the ongoing, indispensable contribution of the voluntary associations Avis and Fidas, which have over 160 thousand registered donors. To increase the number of effective donors (in 2010 there were 146,249), both the Region and the associations have been involved for years in awareness campaigns, addressed in particular to young people through initiatives and competitions for students.

The Blood and Plasma Plan has been operational since April 2008; its priorities are: accrediting transfusion facilities, developing transfusion safety procedures, especially with regard to donor tracing methods, blood and its components, and preventing the risk of infection.
The Emilia-Romagna blood services are also involved in a quality project – blood and plasma processing centres are being concentrated at a Vast Area level, namely North Emilia, Central Emilia and Romagna (for subsequent transfer to regional services and other regions). Processing centres have already been unified in Vast Area Romagna at the Officina Trasfusionale di Pievesestina (Transfusion Centre) (60 thousand units handled).

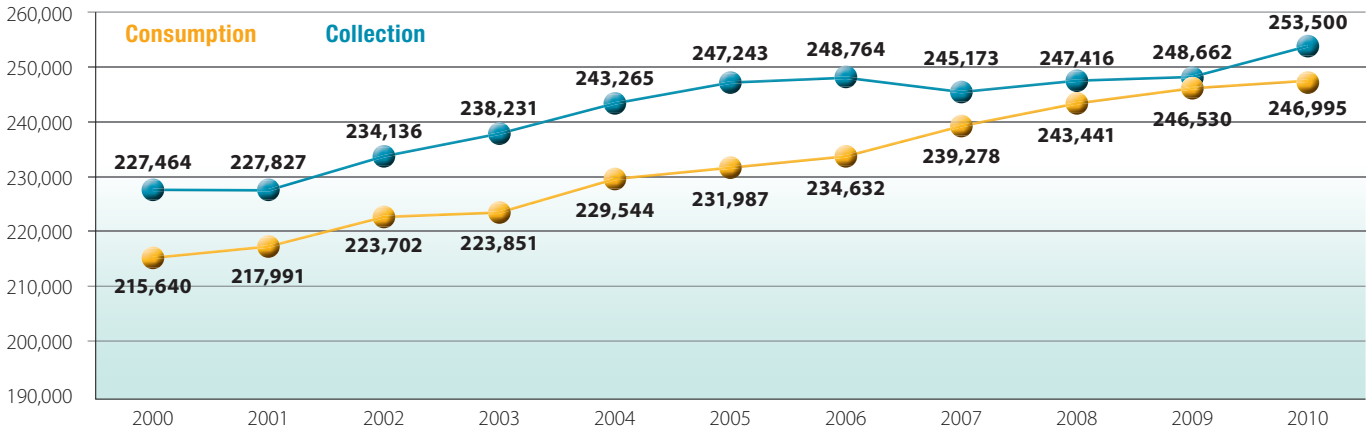
Internet site: http://www.donaresangue.it/

Blood collection and consumption (red units) – Comparison period 2009-2010

Programs	Collection				Consumption			
	2010	2009	% difference 2010-2009	Goals for 2010 collection	2010	2009	% difference 2010-2009	Goals for 2010 consumption
Piacenza	15,780	15,591	1.2	15,250	13,369	13,666	-2.2	14,700
Parma	30,199	29,088	3.8	30,600	27,455	26,577	3.3	28,400
Reggio Emilia	23,331	23,237	0.4	24,000	18,745	18,863	-0.6	18,000
Modena	36,448	35,482	2.7	35,300	32,955	32,518	1.3	33,000
Bologna	62,756	63,270	-0.6	67,650	71,231	71,602	-0.6	74,000
Ferrara	22,649	22,327	1.5	22,500	23,380	22,812	2.5	23,000
O.T. AV Romagna*	62,337	59,667	4.5	62,100	59,860	60,492	-1.0	55,500
Total	253,500	248,662	2.0	257,400	246,995	246,530	0.2	246,600

(*) Vast Area Romagna Transfusion Centre.

Blood collection and consumption trend (red units) – Period 2000-2010



Blood units (red units) transferred to other Regions – Year 2010: 3,505

Emilia-Romagna has three active screening programs whereby the Local Health Trust of residence sends invitations to screening tests to the home address of potential participants. Screening regards prevention and early diagnosis of breast cancer (addressed to women aged 50-69 years, it offers mammography every two years; since 1st January 2010 it includes also women aged 45-49 for an annual mammography, and women aged 70-74 for a mammography every two years), cervical cancer (addressed to women aged 25-64, it offers pap-test every three years), colorectal cancer (addressed to men and women aged 50-69, it offers faecal occult blood test every two years).

Breast cancer screening

Since 1st January 2010 screening has been offered to all women aged between 45 and 74 years (840 thousand in total).

Adhesion to invitations (addressed to 90.4% of women in the 50-69 age group) was very high: 73.1% (60.3% at national level). 66.6% of women in the 45-49 age group were also invited in 2010, in addition to 100% of women in the 70-74 age group: adhesions rates were 62.8% and 65.7% respectively *(comparison with national figures is not possible as the extended program was not available throughout the country)*.

173,483 women between 50 and 69 had a mammography in 2009 *(latest figure available)*; of these, 4.2% (7,235) were called back for further assessments, and 1,045 were diagnosed with breast cancer (53% at the early stage).

Conservative surgery was carried out in 86% of cases. Between 1997 (starting year of the program) and 2009, screening procedures allowed to identify 12,540 women with cancer; 2,060 of these cases were in situ (still non-invasive) and, among those with an invasive cancer, this was at an early stage for 7,038 subjects (6.2%), an essential pre-requisite for a rapid treatment intervention.

According to the national study "Impact", in Emilia-Romagna participation in screening programs and having regular mammography reduced the risk of death from breast cancer by 56% (50% at national level).

Internet site: http://www.saluter.it/screening_femminili/

Screening program for cervical cancer

The program is addressed to women aged between 25 and 64 years (more than 1,250,000 in total). Adhesion rates to invitations (addressed to 100% of eligible women) were higher than the national average: 57% against 41.7%. In 2009 *(latest figure available)* 6,278 colposcopy examinations were carried out on women with an abnormal pap-test result.

Of these women, 1,448 (23%) were found to have low risk pre-cancerous cells (CIN1), which often recede spontaneously. Another 988 (16%) were found to have high risk pre-cancerous cells (CIN2 & CIN3) which are usually treated, because of their potential to develop into invasive forms, even though they could recede spontaneously; 40 invasive cancers were detected, 45% of which were micro-invasive.

Between 1997 (starting year) and 2009, through screening procedures 10,645 women with pre-cancerous cells and 635 with invasive cancers (42% of which were micro-invasive cancers, therefore with a 100% probability of being cured) were detected. Treatment of pre-cancerous cells prevented them from becoming invasive cancers (which occurs in approximately 25-30% of cases) in approximately 2,800 women.

Internet site: http://www.saluter.it/screening_femminili/

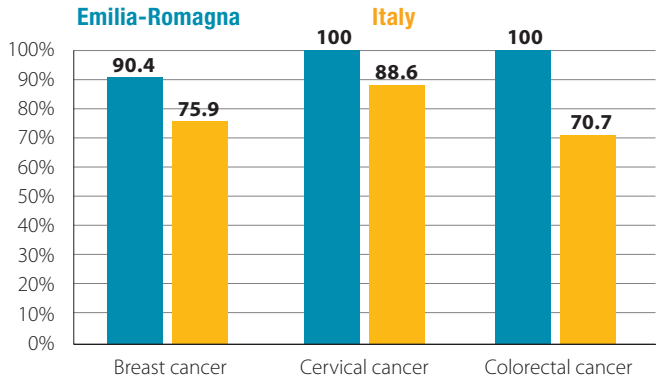
Screening program for colorectal cancer

The program is addressed to men and women between 50 and 69 years of age (approximately 1,100,000 in total). Adhesion rates to invitations (addressed to 100% of the eligible population) were 51.5% in 2010 (national average 49.5%). Among the 241,018 people who had faecal occult blood tests in 2009, 4.3% of the total were positive *(latest figure available)*. The positive results increased with age and were more frequent in men in all age groups.

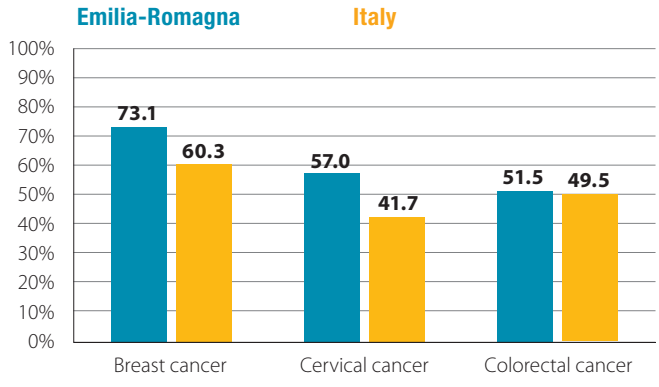
The result of the colonoscopy examination in the 8,391 people who were found to be positive after the test in 2009, detected high risk polyps in 28% of people, and a colorectal cancer in 4%. Between 2005 (starting year) and 2009, through screening program a malignant tumour was detected in 2,750 people, 57% in the early stage and 24% in the advanced stage. Before the screening program was started, regional statistics reported 51% of people with cancer in the advanced stage and just 20% in the early stage. The removal of high risk polyps (adenomas), which were found in 14,815 people during the period considered, reduced the onset of malignant tumours.

Internet site: http://www.saluter.it/colon/

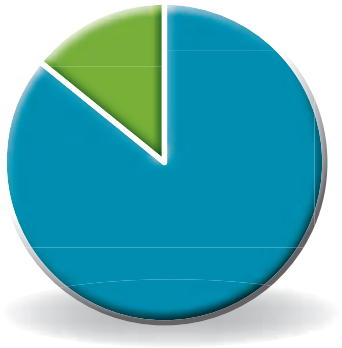
Screening for breast, cervical and colorectal cancer. Population invited as of 31/12/2010: Emilia-Romagna and Italy - % values



Screening for breast, cervical and colorectal cancer. Invitation response rate: Emilia-Romagna and Italy - % values – Year 2010



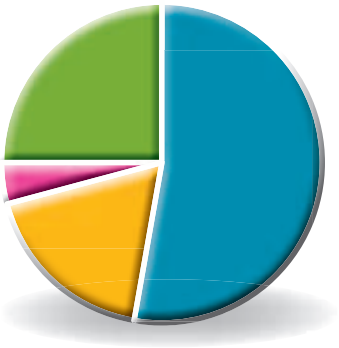
Breast cancer screening: type of surgery – Year 2009



86% conservative surgery

14% non-conservative surgery

Breast cancer screening: stage of the 1,045 tumours detected in 2009

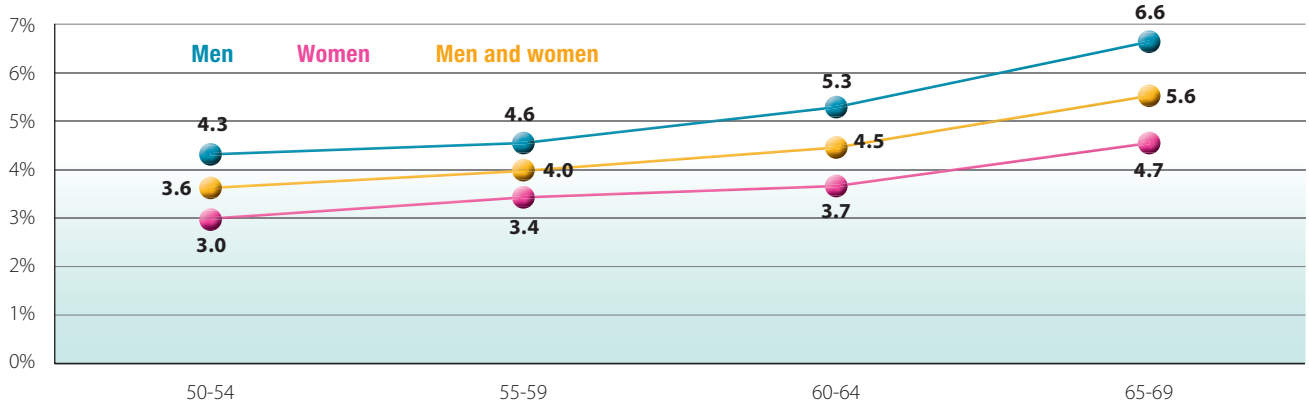


53% early stage
25% advanced stage
18% in situ
4% unknown stage

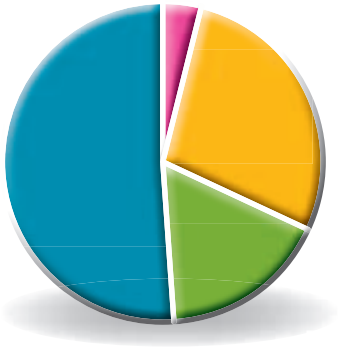
Cervical cancer screening: colposcopy results in the 6,278 women examined in 2009

60% normal/negative
16% high risk pre-cancerous cells (CIN2+CIN3)
23% low risk pre-cancerous cells (CIN1)
1% invasive cancer

Colorectal cancer screening: % positive result of faecal occult blood test, by age groups and gender – Year 2009



Colorectal cancer screening: colonoscopy results in the 8,391 people examined in 2009



51% no lesions
17% low risk polyps
28% high risk polyps
4% malignant tumour

Memory of many dangerous – sometimes fatal – diseases has nowadays been lost, such as poliomyelitis or diphtheria, that have been almost eradicated in Europe, but that can still circulate with people migrations from one part of the planet to another. At the same time, risk perception on vaccinations side effects has increased disproportionately, while risk perception relating to complications arising from these diseases has decreased. It must be stressed that vaccinations represent a fundamental tool in preventing infectious diseases. Considering both children and adults, vaccinations save more than 3 million lives every year worldwide, and save many more from the suffering and consequences related to these diseases, that sometimes provoke permanent disabilities.

Before the introduction of vaccinations in childhood, infectious diseases represented the main death cause among children worldwide; even today 10.6 million children die every year before reaching their fifth birthday, and 1.4 million of these deaths are due to diseases which could have been avoided with vaccinations (source: WHO).

Emilia-Romagna Region has always been committed to pursuing vaccination programs consistent with the national guidelines and included in the wider framework of infectious diseases transmission control. These programs are based on epidemiological data, on proven efficacy and safety evidences, to ensure the widest vaccination supply, at the safest and most effective times.

The objective is also to tackle inequalities through preventive actions against diseases most largely widespread in the most disadvantaged groups of the population, ensuring equal access and opportunity through the active provision of a vaccination program.

The commitment to maintain the highest standards in the vaccination process, professionalism of healthcare personnel, and integration with paediatricians and general practice physicians is going on.

Vaccinations in childhood and adolescence

Emilia-Romagna has consistently exceeded the national objective of reaching 95% of the target population for all vaccinations scheduled in the vaccination timetable for years, even if last year it registered a slight drop for all vaccinations.

For vaccinations considered as compulsory in the first 24 months of life – poliomyelitis, diphtheria, tetanus and hepatitis B – the coverage rate in 2010 was 96.5% (97.1% in 2009).

For vaccinations strongly recommended in the first 24 months of life, the coverage rate in 2010 was 96% for haemophilus meningitis (96.5% in 2009), 96.4% for whooping cough (97.1% in 2009), 94.6% for the anti-pneumococcal vaccine (95.9% in 2009) and 92.3% for the anti-meningococcal vaccine (93.2% in 2009).

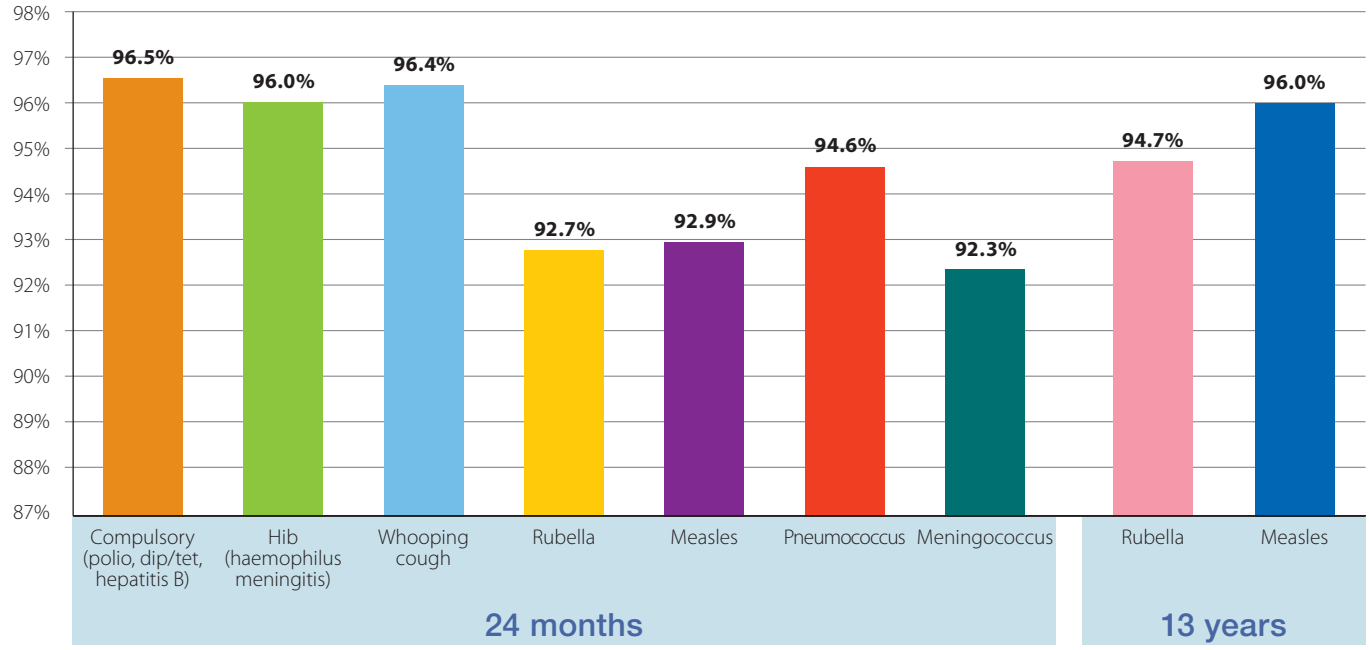
The measles vaccine (for 24 months old children) registered a coverage rate of 92.9%, which was slightly lower than in 2009 (93.7%), lower than the target of 95%, but greater than the national average (89.9% in 2009, *latest figure available*).

For children at risk due to the presence of predisposing chronic diseases, the anti-pneumococcal vaccine has been provided since 2001 and reasonable levels of coverage were reached (around 60% of the children concerned).

The coverage rate for measles vaccinations was slightly higher than in 2009, as well as that for Rubella at 96% (95.7% in 2009), which is recommended at 13 years of age.

All the vaccinations listed above were free of charge.

Vaccinations in childhood and adolescence – Year 2010 - % values



Vaccination against Human Papilloma Virus (HPV) types 16 and 18

The Human Papilloma Virus causes the most common sexually transmitted infection, which is highly widespread especially among women around 25 years of age. HPV serotypes 16 and 18 are the most dangerous as they can cause, even if only in rare cases, cervical cells alterations that can evolve in cancer if not promptly treated.

It has been shown that more than 70% cervical cancer cases are caused by an HPV 16 and 18 infection.

Protection against the virus before the onset of sexual activity is essential.

The free of charge vaccination program against HPV types 16 and 18, addressed to adolescents in their twelfth year of life, has been fully working in Emilia-Romagna since March 2008, as in all other Regions, in line with national guidelines. Girls born from 1996 onwards (year when the use of the vaccine was authorised) are entitled to receive free of charge vaccination until they turn 18. In 2010 invitations to all the girls born in 1998 were completed and all the girls born in 1999 were invited (18,155 in the whole region).

As of 31st December 2010 vaccination coverage rates for girls born in 1997 was 73% (regional average), for girls born in 1998 it was 66.4%.

This level of coverage could be improved, even though it is above the national average (65% for girls born in 1997 and 51.9% for girls born in 1998), and the healthcare service is committed to achieving this goal.

The regional program also offers to girls (born before 1996) aged up to 25 years the possibility to be vaccinated in clinics of the Healthcare Service at a reduced cost, equivalent to the cost paid by the Healthcare Service to purchase the vaccine plus the cost of the injection.

HPV vaccine coverage for girls born in 1997 and 1998 by Local Health Trust – Data as of 31/12/2010

Local Health Trust	1998 cohort % vaccinated	1997 cohort % vaccinated
Local Health Trust of Piacenza	74.4	82.9
Local Health Trust of Parma	60.0	62.6
Local Health Trust of Reggio emilia	74.8	75.7
Local Health Trust of Modena	75.0	76.8
Local Health Trust of Bologna	63.8	67.9
Local Health Trust of Imola	84.6	93.3
Local Health Trust of Ferrara	53.6	85.0
Local Health Trust of Ravenna	53.9	77.4
Local Health Trust of Forlì	78.2	77.2
Local Health Trust of Cesena	63.2	64.4
Local Health Trust of Rimini	54.6	57.8
Regional total	**66.4**	**73.0**

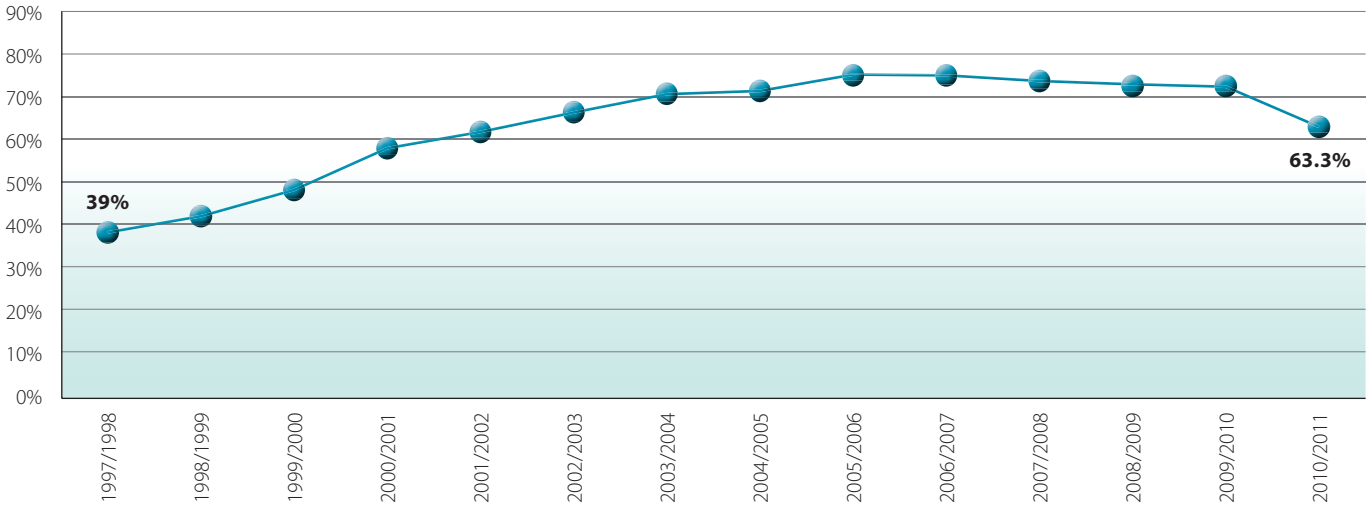
Influenza vaccination

The regional program for influenza vaccination is directed – free of charge – to people aged over 65, adults and children with chronic diseases and therefore more exposed to complications, and people that need protection against the influenza virus infection because of their professional activity (healthcare personnel, people working with the public, blood donors).

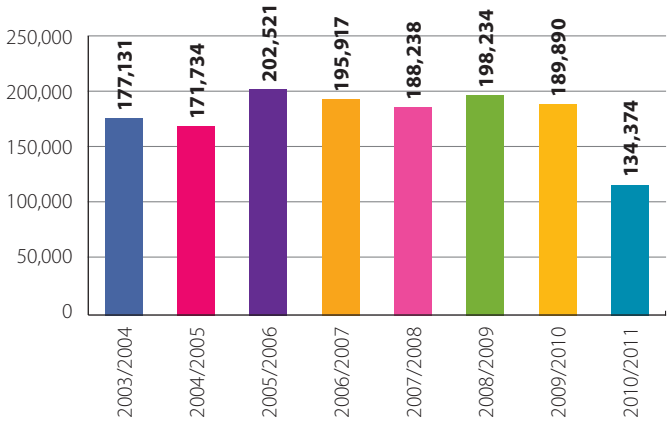
The vaccine coverage rate for people aged over 65 years registered a considerable drop for the first time *(the national figure is not yet available but the downward trend was registered in all Regions)* with 624,696 vaccinated, 63.3% of the total (73% in the 2009-2010 campaign). Also the adhesion to vaccination by people with chronic diseases registered a decrease (134,374 against 189,890 in 2009-2010). Vaccination of healthcare personnel registered the same downward trend with 9,561 vaccinated in the 2010-2010 campaign, 17.5% of the total, against 33.1% of the previous campaign.

The decrease in the adhesion rates, witnessed throughout Italy, is linked to events regarding the A H1N1 virus pandemic in 2009. The fact that the pandemic proved to be less serious than initially thought by the European and world Health Authorities, and the fact that the vaccines arrived when the disease peak period was over and were therefore basically useless, created mistrust and uncertainty in the population, also towards the seasonal influenza vaccination. It should however be emphasised that when a new type of influenza virus produced by a combination of animal and human strains (as in the case of the A H1N1 virus) emerges, it is likely that most of the population does not yet have the necessary antibodies and could even contract a serious infection. As a result the Health Authorities declared a maximum state of alert and the opportunity to be vaccinated for groups of people most at risk; the sensible approach always dictates taking action based on the worst case scenario.

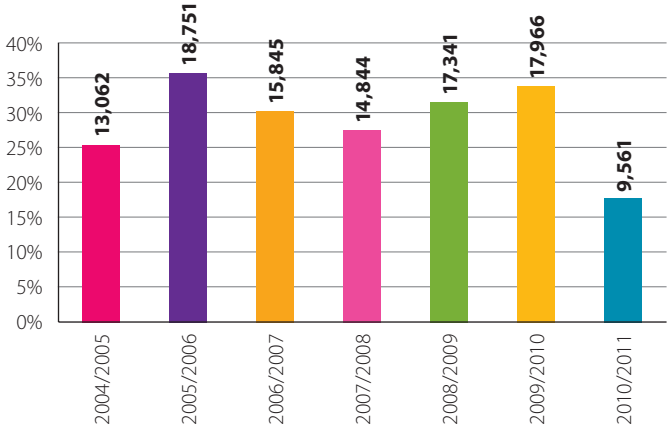
Influenza vaccination in people aged over 65 years: campaigns from 1997-1998 to 2010-2011 % values



Influenza vaccination in adults and children with chronic diseases: campaigns from 2003-2004 to 2010-2011



Influenza vaccination in health personnel: campaigns from 2004-2005 to 2010-2011*



* *Coverage was calculated by considering the denominator as healthcare Regional Health Service personnel, general practice physicians and paediatricians as of 31/12/2010.*

Accidents

In 2010 in Emilia-Romagna 105,993 occupational accidents were reported to the National Insurance Institute for Occupational Accidents (INAIL) (1.5% less than in 2009 when 107,564 accidents were reported). In the 2001-2010 period the number of accidents reported decreased by 24.7%, falling from 140,766 to 105,993.
Fatal accidents in the same period fell by 50% from 174 to 87; in 2010 they decreased by 6.5% compared with 2009.

For foreign workers, 2010 was worse than the previous year in terms of occupational accidents: there was an increase of 1.5%, in contrast to the significant decrease registered in 2009, when there was a reduction of 19.7% compared with the previous year. In 2010 19 fatal accidents were registered among foreigners, the same as in 2009, equivalent to 22% of total fatal accidents occurred in the Region.

Occupational accidents reported to INAIL – Period 2009-2010

Province	Total accidents		% variation 2010/2009	Fatal accidents		% variation 2010/2009
	2009	2010		2009	2010	
Piacenza	6,074	5,866	-3.4	8	6	-25.0
Parma	11,053	10,819	-2.1	9	9	0.0
Reggio Emilia	14,627	14,240	-2.7	5	6	20.0
Modena	17,820	17,583	-1.3	16	7	-56.3
Bologna	22,958	22,567	-1.7	18	27	50.0
Ferrara	6,529	6,264	-4.1	8	10	25.0
Ravenna	10,602	10,298	-2.9	14	8	-42.9
Forlì - Cesena	10,064	10,077	0.1	8	9	12.5
Rimini	7,837	8,279	4.6	7	5	-28.6
Emilia-Romagna	**107,564**	**105,993**	**-1.5**	**93**	**87**	**-6.5**

Occupational accidents occurred to foreign workers reported to INAIL – Period 2009-2010

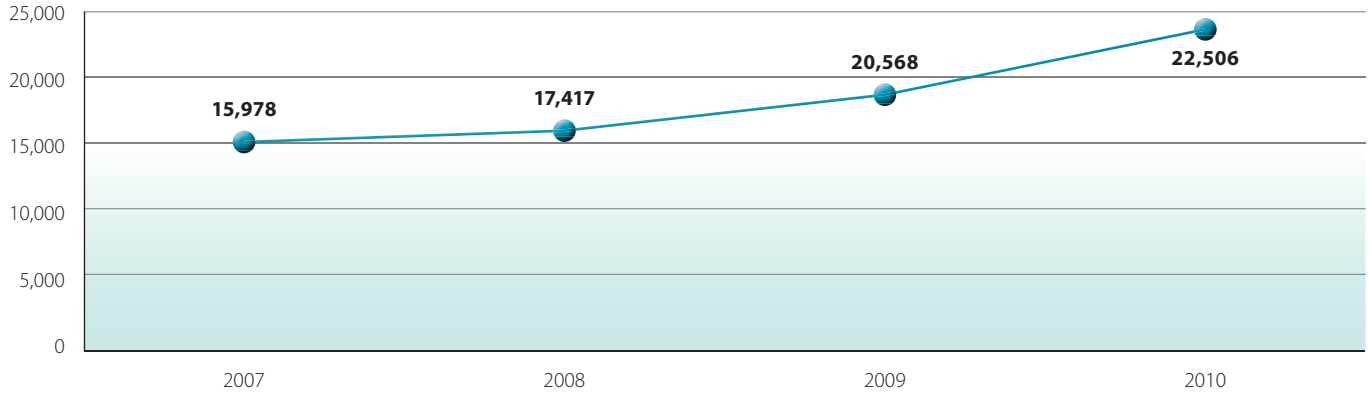
Province	Total accidents		% Variation 2010/2009	Fatal accidents	
	2009	2010		2009	2010
Piacenza	1,532	1,510	-1.4	0	1
Parma	2,574	2,541	-1.3	1	1
Reggio Emilia	3,124	3,044	-2.6	1	1
Modena	3,879	3,955	1.9	3	1
Bologna	4,917	5,093	3.5	3	10
Ferrara	699	775	10.9	2	2
Ravenna	2,120	2,081	-1.8	4	1
Forlì - Cesena	2,077	2,150	3.4	2	2
Rimini	1,635	1,769	7.4	3	0
Emilia-Romagna	**22,557**	**22,918**	**1.5**	**19**	**19**

Surveillance activities by Local Health Trusts

In 2010 22,506 firms were inspected in 2010, 9.6% of total firms in the region. The increase with respect to the previous year was 9.4%. Among the sectors involved in the inspections, construction was in 1st place with 54.7% of companies inspected, followed by the service sector (8.1%), and engineering (8.1%). 23.6% of firms inspected were reported to the Authorities for irregularities. The sectors with the highest ratio between the number of fined firms and the number of inspected firms were the textile and clothing sectors, where 65% companies were found to be irregular, followed by the woodworking sector (44.4%) and the fishing sector (42.8).

Irregularity indexes (see Table) should not be considered as illegality indexes, as the inspected firms were not chosen with statistical criteria, but rather on the basis of specific indicators aimed at identifying the firms at highest risk of irregularity.

Number of companies inspected in Emilia-Romagna – Period 2007-2010



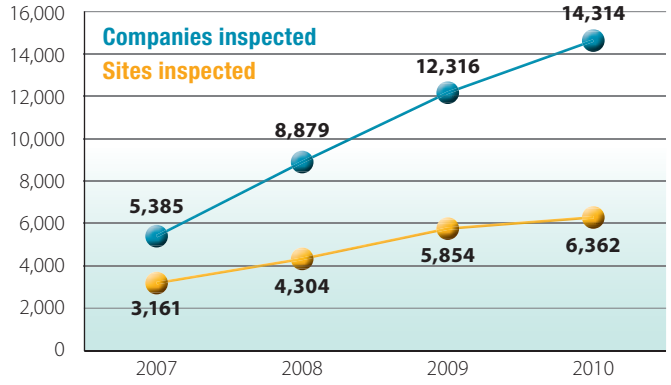
Number of firms inspected as % of regional total and relevant irregularity index % values – Year 2010

Sector	Inspected firms as % of regional total	Irregularity index
Textile / clothing	1.6	65.33%
Wood Industry	1.1	44.44%
Fishing	0.1	42.86%
Metal and mechanical	8.1	41.02%
Chemical	2.9	40.52%
Food	1.9	35.93%
Construction	54.7	32.26%
Agriculture	4.5	30.40%
Publishing	0.2	28.13%
Transportation	1.7	27.89%
Trading	4.4	25.63%
School	1.5	25.01%
Energy, water, gas	1	24.43%
Services	8.1	22.71%
Health	2.4	19.61%
Public	0.9	12.93%
Hotel/catering	1.6	12.77%
Mineral extraction	3.4	12.48%

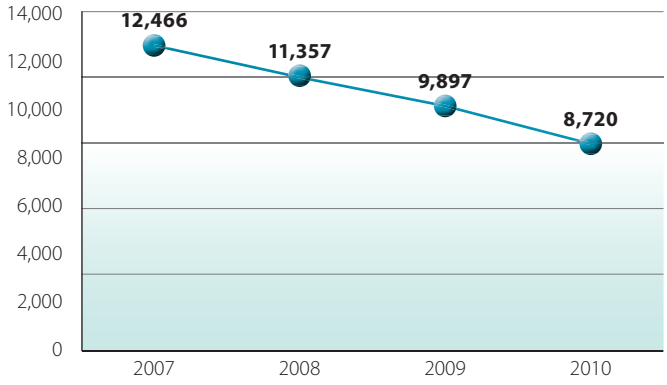
Regional Construction Plan
Inspections and accidents

In 2010 6,362 construction sites were inspected in Emilia-Romagna (19.2% of the total). Inspections involved not only the official company but also contracted and subcontracted companies. 14,314 firms in total were inspected. 32% of the inspected sites were found to be irregular: in 40.4% cases irregularity related to organisational and procedural measures, 37.8% involved irregularities relating to protection against falls, which is one of the most common causes of serious and fatal accidents, and 15.5% involved irregularities relating to work equipment safety requirements. The reduction of accidents overall, and especially fatal accidents, is the main goal of the Regional Construction Plan. Data relating to the 2007-2010 period are positive: in the observed period, accidents fell by 30% from 12,946 in 2006 to 8,720 in 2010 *(for the new three-year Plan see page 55).*

Construction: firms and sites inspected in Emilia-Romagna – Period 2007-2010



Construction: accidents reported to INAIL Period 2007-2010

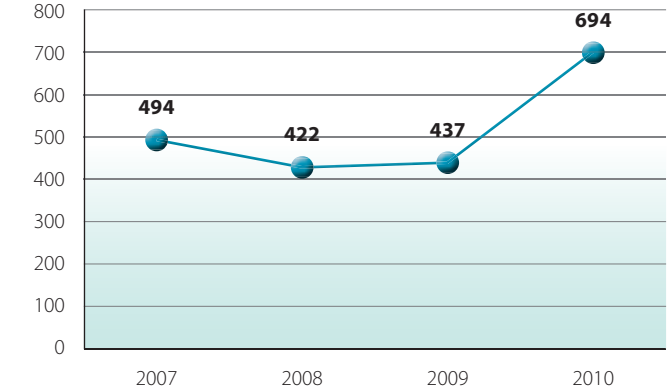


Regional Agriculture Plan
Inspections and accidents

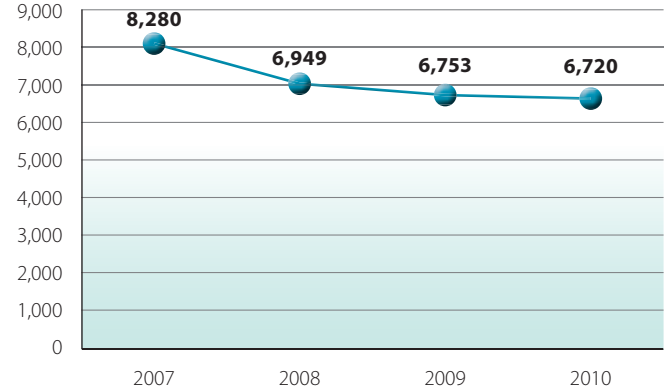
In 2010 694 agricultural firms were inspected in 2010, 59% more than in 2009. Irregularities were found in 31.6% of firms. The most frequent irregularities concerned organisational and procedural aspects (59%), lacks in work equipment (18.4%), workplaces safety (11.6%), and compliance with training obligations (8.2%).

Accidents in agriculture have essentially been stable in recent years, after a significant decrease in 2008 *(for the new three-year Plan see page 55).*

Agriculture: firms inspected Period 2007-2010



Agriculture: accidents reported to INAIL Period 2007-2010



Through the Local Health Trust Veterinary and Food Hygiene and Nutrition Services, the Regional Health Service carries out inspections (audits, checks, tests, monitoring, supervision and sampling) over the entire production line for foods of animal and plant origin, to guarantee sufficient health safety levels of foods produced and consumed in the region, and to safeguard animals' health and wellbeing.

Inspections in food production plants and catering

In 2010 a decrease was registered in the number of facilities that presented irregularities in their production plants for foods of animal origin compared with 2009 (from 5,451 in 2009 to 1,302 in 2010), and a slight increase in the number of facilities that presented irregularities in their production plants for foods of plant origin (from 728 in 2009 to 1,176 in 2010), and in catering (from 1,949 in 2009 to 2,994 in 2010).

Inspections for Salmonellosis

Numerous diseases in animals are subject to health surveillance programs in order to safeguard regional livestock, the free exchange of animals and food within the European Union or with other countries and, in some cases, people's health with regard to zoonoses. Activities carried out in 2010 involved the surveillance plan for salmonella strains in chicken and turkey breeding which confirmed a low level of spread of the most dangerous serotypes for human beings (7 of S. Enteritidis & 6 of S. Typhimurium).

Search for phytosanitary residues in foods

In addition to inspections on production plants, a food sampling plan has also been implemented. This plan includes the search for phytosanitary product residues: 1,587 samples were tested in 2010 (mostly fruit and vegetable products including organic items). The percentage of irregular samples for all products (from Emilia-Romagna Region and other Italian regions, other EU countries, and non-EU countries) was low. A lower percentage of irregularity was registered in 2010 (1.5%) compared with data from the previous year; this irregularity refers mainly to the use of authorised substances and, to a lesser degree, concentrations exceeding legal limits.

Inspections on drinking water

With regard to inspections on drinking water and 1,580 waterworks throughout the region, the plan includes sample collection from treatment and distribution systems, and from domestic supplies. 1,547 inspections were carried out during 2010, which mainly involved distribution networks and, to a lesser degree, other systems. Out of 12,379 samples analysed, 331 were considered as irregular.

Food production plants: facilities, inspections, irregularities – Period 2009-2010

	2009			2010		
	Facilities	Inspections	Facilities with irregularities	Facilities	Inspections	Facilities with irregularities
Production plants for foods of animal origin	2,781	46,369	5,451	3,339	41,312	1,302
Production plants for foods of plant origin	10,806	4,181	728	10,390	4366	1,176
Catering	38,961	12,773	1,949	40,133	12,127	2,994
Total	**52,548**	**63,323**	**8,128**	**53,862**	**57,805**	**5,472**

Salmonella surveillance plan for chickens and turkeys – Year 2010

Type of group				No. of groups positive for various Salmonella serotypes		
	Total no. of farms	Total no. of animals	Total no. of farms inspected	S. Enteritidis serotype	S. Typhimurium serotype	Other serotypes
Breeders laying eggs	217	2.320.651	217	1	0	10
Meat laying hens	579	13.537.054	187	6	0	17
Meat chickens	939	19.454.630	55	0	0	5
Breeding turkeys	5	42.000	3	0	0	0
Meat turkeys	522	2.954.800	87	0	6	18
Total	**2.262**	**38.309.135**	**549**	**7**	**6**	**50**

Phytosanitary product residues in foods: samples tested, irregularities – Period 2009-2010

Matrix	2009			2010		
	Samples	Regular	Irregular (%)	Samples	Regular	Irregular (%)
Vegetables	492	480	12 (2.4%)	458	445	13 (2.8%)
Fruit	815	800	15 (1.8%)	760	751	9 (1.2%)
Other foods	436	433	3 (0.6%)	369	367	2 (0.5%)
Total	**1,743**	**1,712**	**30 (1.7%)**	**1,587**	**1,563**	**24 (1.5%)**

	Organic samples 2009			Organic samples 2010		
	Samples	Regular	Irregular (%)	Samples	Regular	Irregular (%)
Vegetables	53	52	1 (1.8%)	35	35	0 (0%)
Fruit	42	42	0 (0%)	33	33	0 (0%)
Other foods	73	71	2 (2.7%)	41	40	1 (2.4%)
Total	**168**	**165**	**3 (1.8%)**	**109**	**108**	**1 (0.9%)**

Sampling in waterworks, irregular samples – Period 2009-2010

	2009		2010	
	No. of samples	No. of irregular samples	No. of samples	No. of irregular samples
Waterworks plant	1,725	187	2,043	108
Distribution plant	7,997	167	8,401	175
Domestic supply	1,883	34	1,935	28
Total	**11,605**	**388**	**12,379**	**331**

Food safety for coeliac patients

Emilia-Romagna is also witnessing a gradual increase in the number of people who are gluten-intolerant (9,916), 12.7% more in 2010 compared with 2009 (7,177 in 2007). In recent years prevention activities for gluten intolerant individuals in the Region have included training and information for workers in the food sector producing foods for coeliac patients (22 courses were set up in 2010, addressed to more than 600 hotels and restaurants in the region) in addition to official inspections in school canteens (1,375), hospital canteens (634), and public canteens (162).

Region-University Research Program

The program represents an essential component of the Region's strategic effort to reinforce the idea that "research is an integral part of clinical practice and can rightfully stand among Health Service's institutional activities". Activated at the beginning of 2007, according to the regional law 29/2004 and the Region-University Agreement Protocol in February 2005, , the Program aims at developing scientific innovation, new management, organisational and training models through the collaboration and integration between Universities and University Hospital Trusts (representing the hub of synergies) and all Health Trusts. It is designed to facilitate the development of centres of excellence and professional networks.

The Region has funded, through specific tenders, 71 projects for an overall amount of 30 million Euros. In particular: 28 innovative research projects aimed at the development of centres/groups of excellence, capable of creating and producing useful technologies/instruments for healthcare activities); 27 research projects for clinical governance, with the goal to acquire knowledge on benefit/risk profile of technologies and interventions; 16 training projects for research and the creation of research networks.

Activities in the three-year period 2010-2012

On the basis of a positive assessment of the program's first years, shared by the Regional Health Service and Universities in the Region, the program will continue its activities for three more years with the specific aim of working not only towards the selection and funding of individual research projects, but also towards the definition of initiatives with greater strategic range, supporting the development of research and innovation programs proposed by University Hospital Trusts. The Region-University Agreement Protocol has been extended and an additional funding of 30 million Euros has been made available.

Experience allowed to identify necessary actions for further improvement with regard to:

- methods to identify suitable themes and prepare project proposals;
- governance arrangements for the program;
- scientific evaluation and monitoring of projects and outcomes.

For the 2010-2012 three-year period approximately 70% of total resources were dedicated to innovative research, and the remaining 30% is allocated to research for clinical governance and research training.

The Regional Healthcare and Social Agency, which has the role of scientific and operational coordinator of this program is also responsible for monitoring projects with the supervision of a special Steering Committee.

Emilia-Romagna Research & Innovation Program (PRI E-R)

Activated in 2004 with the support of an Innovation Fund (established with regional resources and the contribution of different private and public entities that share the general aims of the program), this program involves all Health Trusts. The main purpose is to promote priority research for the timely transfer of clinical/organisational innovation in Regional Health Service structures. This process aims to transform organisations and personnel from participants into protagonists in a process in which research and innovation form an integral part of the healthcare system.

The active projects cover different areas: oncology, cardiology, cerebrovascular area, high-cost diagnostics, risk of infection, humanisation in intensive care treatment.

Activities in the three-year period 2010-2012

In addition to the development of ongoing projects and activities aimed at strengthening a regional infrastructure for research, the PRI E-R collaborates with the Regional Observatory for Innovation and has organized workshops open also to pharmaceutical and biomedical industries. By signing up to the purposes set by the Region, these industries can support the Program on the topics of emerging innovations and on the possibility of setting up – with planned, agreed objectives and methodical design – specific projects which are co-funded by industry in key sectors for regional development. In particular five pharmaceutical companies (Abbott S.r.l., GlaxoSmithKline S.p.A., Pfizer Italia S.r.l., Roche S.p.A. and Takeda Italia Farmaceutici S.p.A) have shared this new phase of the regional program by contributing to its development.

A workshop has already taken place on relationship models between the pharmaceutical and biomedical industry and Regions, in the area of biomedical and medical research, and was attended by international experts. A project is being carried out: using available information on system characteristics and its population, it will develop tools and methods for realistic forecasts of future scenarios, with the aim of highlighting the possible effects and problems following choices adopted, and the complex interaction of various contextual factors. The fundamental working hypothesis of this initiative is that laying the ground for future scenarios could also provide the basis for the development of working relationships with the biomedical and pharmaceutical industries. PRI E-R develops its activities through multidisciplinary work groups expert on each topic. Coordination is ensured by the Regional Healthcare and Social Agency in close partnership with Health Trust's Directors.

Regional research register

This register, which was created by the Regional Healthcare and Social Agency, aims to improve the tracking and visibility of research activities, in order to obtain and assess processes and results.

For more information:

http://asr.regione.emilia-romagna.it/

Regional Observatory for Innovations in Healthcare

The Regional Observatory for Innovations in Healthcare was established in 2007 with the aim of supporting the activities of Health Trusts' Boards of Directors on technological, clinical and organisational innovation.
The Regional Observatory deals with three types of health innovations:

1. Innovations at risk of improper and uncontrolled circulation (highly innovative technologies with uncertain effectiveness, or technologies already in use but for which improper use has been reported);
2. Innovations of proven effectiveness that have difficulties in circulation or adoption;
3. Persistent healthcare issues requiring innovative solutions.

1. Innovations at risk of improper or uncontrolled use

With the collaboration of multidisciplinary professional panels, the Observatory assessed various highly innovative technologies (surgical robots and tomotherapy) and technologies already in use characterised by potential inappropriate use (FDG/PET in oncology).
These professionals worked actively to define use contexts and to analyse documentation on innovative technologies. They also identified research fields characterised by a high level of uncertainty, and for some of these they proposed and set up multicentre clinical trials.
In this framework, forthcoming activities will be dedicated to:

- production of documents shared with professionals on already diffused technologies (criteria for appropriate use of FDG/PET in oncology);
- testing of instruments to establish the priority of the analysis of innovative technologies;
- analysis and proposal of methods and tools to find a meeting point between demand from health professionals for innovative technologies, and supply from biomedical companies involved in their production, in addition to investigations on the most effective strategies for integrating healthcare activities and research activities, especially in the context of innovative technologies at higher risk of improper circulation.

The Regional Observatory for Innovation will also intensify partnerships with national and international health technology assessment (HTA) agencies and institutions (participation in the Italian HTA Network and support of the Joint Action EUnetHTA), to share methods for producing HTA reports and contents, and to present documents jointly produced by the various Italian and European agencies. Participation in these networks will also allow to develop relationships for European and national research projects, and training courses on managing innovation.

2. Innovations of proven effectiveness, difficult to circulate or adopt

The Observatory has already promoted various initiatives regarding innovation of proven effectiveness (such as evidence-based guidelines or recommendations for clinical practice, organisational models that require important changes in clinical practice, organisational structures or methods of using resources and health services). It has established a network of healthcare professionals involved in projects to improve quality of care, has organized a cycle of workshops for these professionals to exchange information and investigate methodologies, and has activated a regional methodology task force to support the scientific managers of research projects within the Fund for modernisation.
Forthcoming activities:

- to consolidate the regional network of professionals to share local projects and implement experimental projects on highly complex clinical/organisational innovations;
- to promote other workshops to exchange information on Hospital Trusts projects in progress (with particular attention to projects financed through the Fund for modernisation);
- to examine Hospital Trusts' research projects on services financed through the Fund for modernisation from 2000 up to date and hospital initiatives in the clinical/organisational field, in order to classify healthcare issues addressed, populations involved in research projects and assessed initiatives, in addition to providing systematic organisation of the regional knowledge developed.

3. Persistent healthcare issues that require innovative solutions

The Observatory is part of, and works within, two international networks for research on the change and improvement of healthcare quality, in order to analyse persistent healthcare issues that require innovative solutions – the Cochrane Effective Practice and Organisation of Care Group (EPOC), (a group of the Cochrane Collaboration which focuses on reviewing the effectiveness of initiatives aimed at improving professional practice and effective health services delivery), and the Normalization Process Theory (NPT) learning group (a group of researchers which has received funding from the British Economic and Social Research Council and has investigated and developed models for a better understanding of the dynamic processes intervening when new technology and complex initiatives are introduced into clinical practice).
In this framework the Regional Observatory for Innovations will:

- develop activity to research and systematically organise documented experience (printed and online), in order to make comprehensive reports on specific care issues, which will provide a categorisation of the innovative care models studied, and the current research status;
- intensify international relationships: an EPOC satellite group will be established to use the knowledge provided by systematic reviews on the impact of organisational initiatives;
- organise workshops to investigate important topics, with the participation of researchers belonging to the EPOC group, to support the Region research groups in drawing up study protocols to be submitted for regional and national funding applications, and their possible relationships with European research networks already in existence.

The Observatory is managed by the Regional Healthcare and Social Agency.
http://asr.regione.emilia-romagna.it/

The healthcare system, with its own facilities and personnel, plays an important role in University training and continuing medical education of physicians and other healthcare professionals. A survey carried out in Health Trusts in 2009 confirmed these efforts, by highlighting that more than 10,000 healthcare workers were involved in teaching activities, albeit part-time, for University training of physicians (post-graduate specialists and general practice physicians) and healthcare personnel (Bachelor's and Master's degrees), and in continuing education activities.

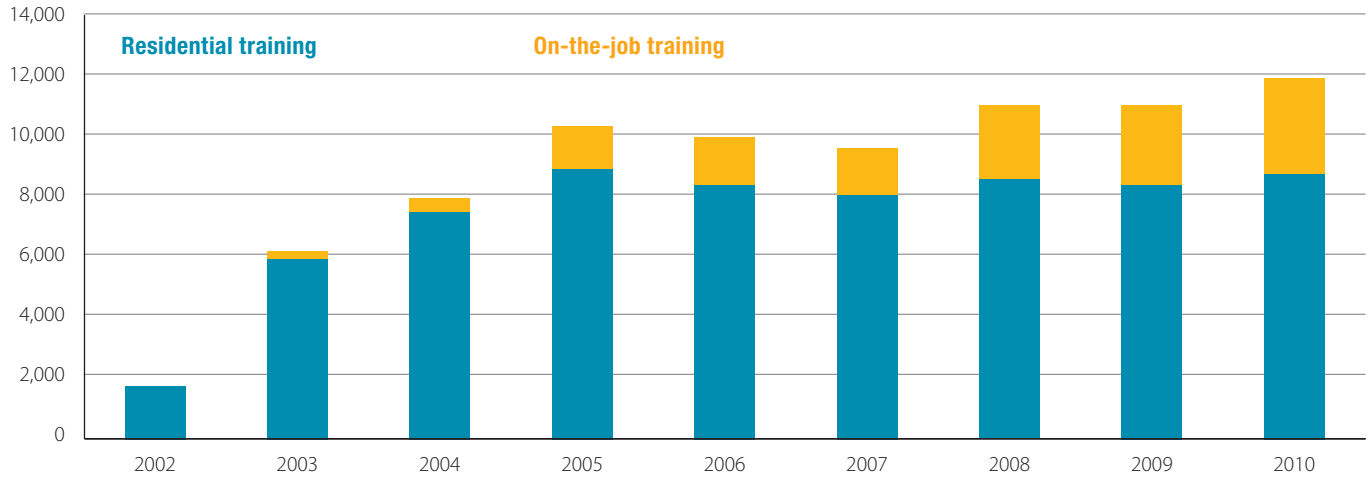
Collaboration with University

Relationships with the Universities of Bologna, Ferrara, Modena and Reggio Emilia, and Parma have developed considerably over recent years, in particular with the approval of the Agreement Protocol (Regional Resolution 297/2005, extended with Regional Resolution 1495/2010), and the institution of the Observatory for Post-graduate Specialist Medical Training (Resolution 340/2004) and the Observatory for Nursing, Technical, Rehabilitative and Preventive Healthcare Professions (Resolution 733/2006).
The latter monitors and promotes the quality of training and the contribution of the Regional Health Service in this regard, and elaborates a proposal to redefine the specific Agreement Protocol for University education of nursing staff, obstetricians, technicians, rehabilitative and preventive healthcare personnel.
The Observatory for Post-graduate Specialist Medical Training implements the tasks outlined in the October 2006 Agreement Protocol, such as the evaluation of agreement proposals for the admission of new structures in the educational training network, and the monitoring of locally implemented agreements. The process of rationalisation and admission of Post-Graduate Specialist Schools has updated evaluation activities, carried out with special questionnaires administered to various key figures in the system (Deans of the Faculties of Medicine and Surgery, Directors of Post-Graduation Specialist Schools, Health Trusts' Medical Directors, and physicians undergoing post-graduate specialist medical training).
The Observatory also draws up proposals relating to specialist medical training on a regional scale.

Continuing medical education (CME)

The first Italian Program for continuing medical education (CME), started in 2002, has finished. The layout of the first regional CME program (Resolutions 1072/2002 and 1217/2004), with the regional accreditation system for events proposed by Health Trusts and Universities in the Region, and contribution from a regional Commission of experts, gave positive results.
More than 80,000 training courses were accredited, after verification of consistency of training objectives with program objectives at a national, regional, and Health Trust's level, and evaluation of the number of credits assigned to each event. Most of these events were "residential" (courses, seminars and conferences), but there were also "on-the-job" training activities (training, participation in commissions, clinical audits, improvements projects, research projects), and some experimental programs in e-learning.
The rules of the Regional Program do not permit the accreditation of training events directly financed (even partially) by organizations with commercial interests, profit or non-profit bearing, in the healthcare field. Sponsorship of Health Trusts' training plans or regional programs such as PRI E-R is permitted.
At present some innovations established in August 2007 and November 2009 at national level are being introduced, while CME activities are going on according to the rules of the first program: the definition of requirements for the accreditation of providers and the creation of tools for accreditation requirements (educational plans, educational files and evaluation reports). The Regional Observatory for Quality in Continuing Medical Education was established and acquired the functions formerly entrusted to the Regional Commission and those relating to the evaluation of the provided education quality.
Internet site:
http://ecm.regione.emilia-romagna.it

Number of on-the-job training and residential training events accredited for CME by Emilia-Romagna Region – Period 2002-2010



The two new Research Hospitals (IRCCS) of Bologna and Reggio Emilia

With the conferral of Research Hospital status granted to the Institute of Neurosciences of Bologna and to the Institute of Advanced Technologies and Care Models in Oncology of Reggio Emilia, the Emilia-Romagna Regional Health Service can count now on a network of research hospitals, with also the Rizzoli Orthopaedic Institute of Bologna. The conferral of Research Hospital status to the two centres of excellence, approved by the Health Minister Antonio Fazio and the President of Emilia-Romagna Region Vasco Errani, was published in the Official Gazette of the Republic no. 119 of 4th May 2011, thus concluding a process which in June 2008 for Bologna and in March 2009 for Reggio Emilia.

The institutes will continue to belong to the Local Health Trust of Bologna (Institute of Neurological Sciences) and the Hospital Trust of Reggio Emilia (Institute of Advanced Technologies and Care Models in Oncology) respectively: as outlined in regional legislation, research hospitals of Emilia-Romagna can be internal facilities of Health Trusts, with special organisational forms, and scientific, organisational, and accounting autonomy.
The Regional Health Service has therefore been enriched, and will be able to further advance care and research in the two fields of neurological sciences and oncology, where it is fundamental to promote initiatives that combine scientific/technical progress with the complexity of patient care needs.
During the last few months the last phase is going on to make the two institutes fully operational: appointment of Operational Directors, managers in charge of administrative coordination of activities, and healthcare managers by the respective Health Trust; appointment of the Scientific Director by the Ministry of Health, in consultation with the Region; establishment of a Steering and Inspection Committee by the Region (5 members – three appointed by the Region, one of which has the role of chairperson, one appointed by the Ministry of Health, and one appointed by the Territorial Social and Healthcare Conference).
The two Health Trusts must implement the organisational model outlined in the Research Hospital application document which includes the establishment of departments and operational units, the assignment of personnel, and the setting up of a separate accounting system.
In addition to dedicated resources from the Regional Health Fund, the two IRCCS will have access to the national fund set up to finance research areas for these institutes, and to European research tenders.

The Romagna Scientific Institute for the Study and Treatment of Cancer in Meldola will join the IRCCS network. The Region's application to obtain the Research Hospital status for this Institute was submitted in March 2010 and the process should be completed in 2011.

Institute of Neurological Sciences

This is the first to be included within the Local Health Trust and will be the first to operate in close connection with territorial care services, thus guaranteeing the best results in research and treatment in the patient's whole care path. The Institute is organized in various facilities (Neurology Clinic, Bellaria Hospital, Maggiore Hospital, Mazzacorati Clinic and Corte Roncate Clinic). It works as a national and international benchmark for neurological sciences in different fields, including the diagnosis and treatment of cerebrovascular diseases, neurodegenerative diseases, epilepsy, cephalea, neurosurgical field. It will host the University teaching courses in Neurology within specialist degree courses in Medicine, Surgery and Dentistry, degrees in Neurophysiopathology Techniques, specialist schools of Neurology and Child Neuropsychiatry, and PhDs on sleep medicine (the only one in Italy).
The research areas identified are:

- neurodegenerative diseases and movement disorders;
- neuromuscular diseases;
- nervous system diseases and headache;
- sleep and biological rhythms disorders;
- epilepsy;
- neurosurgery;
- neuroradiology.

Research projects have been implemented at regional (including a neuro-oncology project), national (including studies on epilepsy, amyotrophic lateral sclerosis and sleep disorders), and international (including neurodegenerative prion diseases, rare neurological diseases, epilepsy, and innovative neurosurgical and neuroradiological projects) level.

Institute of Advanced Technologies and Care Models in Oncology

The Institute of Advanced Technologies and Care Models in Oncology is based at S. Maria Nuova Hospital in Reggio Emilia. It is oriented at cancer research to evaluate medical impact of diagnostic and treatment technologies (such as tomotherapy), and to develop and assess innovative organisational care models.
Three research areas already studied are:

- complex cancer patients;
- advanced technologies;
- healthcare models, especially for breast, colon, lung cancer, and lymphomas; in the future also neuroendocrine, gynaecological and thyroid cancer.

The main purpose is to implement translational research – some projects are already being developed – as it enables the selection of results which, in the framework of pre-clinical and standard research, lead to quicker improvements in clinical practice.
The Institute participates in research projects and is already involved in scientific relationships at a regional, national and international level.

The Regional Prevention Plan 2010-2012 aims at re-launching actions to prevent disease and promote healthy lifestyles, with programs addressed to the entire population and to population groups at specific risk. The Plan was approved by the Regional Government on 27th December 2010 (resolution no. 2071), and is in line with the National Prevention Plan (approved during the State-Regions Conference on 29th April 2010).
In addition to the indications from out in the National Plan, the structure of the Regional Plan was based on the analysis of projects status started under the previous Regional Plan (Regional Government resolutions 1012/2005 and 426/2006), and on the analysis of health status of the Emilia-Romagna population, which enabled the definition of a regional "health profile", useful for defining action priorities.

The creation and implementation process has involved the entire Healthcare Service and those who stand at a government level or in other positions within the society, and can contribute to outline policies and conditions good for health.
As the previous Plan, it is based on one shared principle – that creating prevention programs represents an effective measure to improve people's health and extend their life expectancy in autonomous conditions; at the same time, and as a consequence, it allows to reduce the healthcare burden and the related costs, and to significantly contribute to the sustainability of the public Healthcare Service.
The Regional Plan has been inspired by the values and principles at the basis of the Regional Healthcare Program: equity, integration and participation. Problems arising from health inequality (situations of hardship with a lack of opportunity and resources, aggravated by the current financial crisis) are therefore treated; regional governance instruments are used, with the focus on local organisations in the programming, regulation and implementation of networked social, health, and social-health services; professional and organisational integration is promoted, also through the full development of Primary Care Units and Multi-Purpose Healthcare Centres.

The most significant areas of intervention relate to health promotion, physical exercise prescription, prevention and control of infectious diseases, cancer screening, work and health, environment and health.

Health promotion

The aim is to prevent the onset of chronic disease by concentrating on a limited group of common risk factors – physical inactivity, unhealthy diet, use of tobacco, alcohol and drugs. It is known that these diseases are the main cause of death worldwide, and their impact is constantly increasing; in Emilia-Romagna diseases of the circulatory system are the main cause of death (38%), followed by cancer (30%).
The elimination of common risk factors could prevent 80% of premature heart conditions, 80% of cases of type-2 diabetes, and 40% of cancer cases. Despite this scientific evidence, Health Profile data illustrates that also in Emilia-Romagna, many people do not follow a healthy lifestyle.
As highlighted by scientific studies, behavioural choices are the result of continuous interaction between biological factors (age, sex and genetics etc.), changeable cognitive factors (knowledge, beliefs, attitudes, motivation and perception of personal ability etc.), characteristics of the social environment (given by the social, financial, cultural and political context), and characteristics of the physical environment (natural and artificial).
Initiatives to orient lifestyle must therefore act on changeable factors, namely individual cognitive factors (increase awareness of risks: for example few people know that a sedentary lifestyle is almost as dangerous as cigarette smoke), characteristics of the social environment (for example getting people to spend more time outdoors, fundamental health factor also for children) and the physical environment.
The Regional Plan sets out a program which concentrates on risk behaviours arising from a sedentary lifestyle, diet, cigarette smoke and alcohol abuse, by developing actions for intervening at a crucial point in the development of risk behaviours.
Many of the actions are directed to young people and select schools, families, and sports associations as the environments where action to tackle risk behaviours should be focused.
Another aspect of intervention concerns new mothers, to promote breastfeeding and a healthy diet, an active lifestyle, and giving up smoking, if necessary.
An initiative directed to the elderly promotes physical activities in existing facilities and meeting places, such as community centres.
Finally, many initiatives involve the entire population, and promote both the events and the facilities needed for their realization, such as the "virtuous activity" of walking or cycling, the use of public parks, socialising and quality of life in general, with fitness equipment in parks and gardens, cycling paths, walking paths to walk in safety, and public vegetable gardens.

Physical exercise prescription

Physical inactivity is a significant cause in the development of cardio-circulatory diseases, obesity, diabetes, depression, various types of cancers, loss of independence in the elderly; physical activity not only does prevent these conditions, it also cures them. Thus, WHO recommends maintaining a sufficient level of physical activity, such as walking, swimming, cycling or gardening.
The Regional Plan, in addition to promoting physical activity for the entire population, has developed a program for medical prescribing physical exercise. In other words, physical exercise is prescribed and administered like a medicine, for people with conditions which will react to this treatment (mostly cardiovascular and dysmetabolic diseases), and to avoid the pointless medicalisation of people with disability by pathological events now stabilised, with physical activity adapted on the basis of experience gained in the field of rehabilitation medicine.
The introduction of this model into clinical practice requires special organisational models, capable of promoting relationships with facilities (gymnasiums and sports centres)

that have qualified personnel for treating patients, and which share the values of, and co-operate with, the Healthcare Service. In Emilia-Romagna some important instances of prescribed physical exercise have already been developed for people with risk factors, or people suffering from cardiovascular and dysmetabolic conditions, and vulnerable elderly subjects. The most articulate experience is in Ferrara (coordinated by the Local Health Trust and the University Hospital Trust), which involves GPs and the second level Sport Medicine Centre.
This experiment is scheduled to be extended to Bologna, Ravenna, Modena and Parma, to assess its organisational sustainability on a wider level, achieving regional diffusion by 2013.
The full program is part of the Ministry of Health's experimental program, *Prescribing Physical Exercise as a Prevention and Treatment Tool*, funded with 500 thousand Euros for each of the participating Regions (Emilia-Romagna, Lombardy, Veneto, Sicily), and aimed at assessing its sustainability within the system and its introduction into the National Health Service's Essential Care Levels.

Prevention and control of infectious diseases

The prevention and control of infectious diseases is mainly based on vaccination programs, monitoring and control systems for infectious diseases, monitoring of infections relating to social health and health care, prevention of antibiotic resistance.
With regard to vaccinations, the Regional Plan aims at improving the already reached good levels of coverage; continuing to tackle inequality through active provision and targeted initiatives; improving counselling capabilities and coordination between health workers in prevention and treatment, to avoid misunderstandings in communication, and make it easier to reach people at risk. As for monitoring and control of infectious diseases, the objective is to consolidate existing systems (HIV/AIDS, food-transmitted diseases, diseases transmitted by carriers, for example Chikungunya from the tiger mosquito).
Emilia-Romagna is one of the most attentive Regions on the issue of healthcare-related infections; the purpose is to strengthen the ability to intervene through the improvement and extension of specific monitoring systems, the promotion of evidence-based care practices, and the identification of useful indicators for results monitoring.

Cancer screening

The Plan aims to consolidate the excellent level already achieved by the three programs which are presently under way – screening for the prevention and early diagnosis of breast, cervical and colorectal cancer – by enhancing adhesion rate of those people who undergo the tests autonomously, by facilitating access for the most vulnerable individuals, and by strengthening quality levels of care pathways in all three programs.
The Plan also provides for monitoring and evaluation of emerging scientific evidences, and participation in experimental studies on technological innovation (for example, digitalisation of mammograms for breast screening; virtual colon CAT scan, DNA testing, video capsule endoscopy for colorectal cancer screening; introduction of other screening tests for cervical cancer), implementing appropriate training and organisational initiatives to support these changes.
Emilia-Romagna is the only Region in Italy that from January 2010 has extended the breast screening program to include all women aged between 45 and 74 years. An assessment of family risk regarding breast cancer, and the management of women with this risk, will also be offered starting from 2012 *(for more information see page 56).*

Work and health

The objective is to reduce by 15% the number of occupational accidents registered in 2009, and to reduce the risk of occupational diseases (especially neoplastic diseases and musculoskeletal disorders).
The Plan outlines the sectors and risks to be focused by surveillance and health promotion initiatives. Actions are aimed at reducing accidents in the sectors with the greatest risk (construction and agriculture), removing causes of accidents due to plants and machinery, reducing the risk factors for neoplastic diseases and osteoarticular troubles, and verifying the quality of safety training that must be granted by employers to their employees *(for more information on Construction and Agriculture Plans see page 55).*

Environment and health

The Plan aims to monitor and tackle the effects of atmospheric pollution, mainly caused by road traffic, with a project involving: greater awareness of the effects on health and the implementation of systematic monitoring; and investigation on the impact of municipal solid waste incineration plants on health, with the conclusion of a specific study (Moniter) through a detailed investigation of the consequences on reproduction (especially on premature births).
A Regional Study Centre for policies, environment and health (which will involve resources and personnel of the Healthcare Service, the Environmental Health Agency, public and research organisations and Public Administration offices) will be established to facilitate collaboration and to improve both knowledge and effectiveness of initiatives.
Guidelines will be distributed to facilitate town planning policies which consider the important repercussions of town planning choices on health, and to encourage the development of towns that help people to follow healthy lifestyles.
For more information visit:
http://www.saluter.it/news/regione/il-nuovo-piano-regionale-della-prevenzione

Occupational safety – Regional Plan for Construction and Regional Plan for Agriculture

Due to the high number of occupational accidents, construction and agriculture are considered the highest risk sectors, on which the priorities identified during the State/Regions confrontation have been focused. In 2011 Emilia-Romagna Region, with Regional Government Resolution 691/2011, approved the Regional Plan to Protect Health and Prevent Accidents in the Construction Sector, and the Regional Prevention Plan for Prevention in Agriculture/Forestry, to be implemented in the 2011-2013 three-year period.
The two Plans are based on the respective national plans, and integrate their contents and objectives on the basis of the specific characteristics of the territory and the production context in Emilia-Romagna.
They were elaborated by the Regional Committee for the Coordination of Occupational Safety, an organisation headed by the President of the Region, and that includes all the relevant public officers (regional councillors for agriculture, productive assets, employment, health policies; the Environmental Health Agency; business and Trade Unions organizations; the National Insurance Institute for Occupational Accidents; the National Social Security Institute and the Regional Employment Office).

Regional Plan to protect health and prevent accidents in the construction industry

With the 2011-2013 three-year plan, Emilia-Romagna Region has set a target of increasing inspections on building sites by 37% (with respect to the 2005 figure taken as reference). The increase in inspections has a precise purpose: to inspect 4,662 sites in a year, setting targets which are specific to individual Local Health Trusts, calculated on the basis of the number of employees working in the construction industry in various communities.

The Plan sets the criteria for identifying sites to be supervised, for example sites where the most non-compliant companies operate, or with the greatest number of employees, or characterised by particularly dangerous work processes.
From the National Construction Plan, the Regional Plan takes on the concept of "sites below the minimum safety ethics" (sites where there is very little or no compliance with precautions against the risk of accidents, and where these lacks are so serious that they cannot be resolved by immediate intervention) and provides for the immediate sequestration of the site, in accordance with legislation.
In addition to the risks identified by the National Plan, namely the risk of falls from heights (working at heights without sufficient protection), and risks of collapse or burial, three other conditions have emerged in Emilia-Romagna – sites with contact with electrical systems without adequate protection, with the risk of materials falling from heights, and cases of dangerous demolitions.
The Municipal Police have been identified as a possible source of support in supervision activities and the Plan promotes special training courses on these aspects.
The Regional Observatory for Work Safety and Protection on Construction Sites has been established, to support the Committee for the Coordination of Occupational Safety in the analysis of data and information on accidents and risks, collected via the regional information system.

Regional Plan for occupational safety at work in agriculture/forestry

The reduction in the number of accidents caused by agricultural machinery is the main purpose of the 2011-2013 three-year Plan.
In Emilia-Romagna agricultural businesses are mostly family concerns. As a result, the promotion of safety when using agricultural machinery must be widespread. Being acutely aware of this, the Plan provides for information initiatives from Local Health Trusts' Prevention and Safety Services in Work Environments directed to agricultural workers, with the aim of raising awareness about the dangers and on the minimum investments which should be carried out on used tractors non-compliant with the required standards.
A list of technical specifications has been published on the website **http://www.ermesagricoltura.it/Sportelldell-agricoltore/Sicurezza-sul-lavoro-in-agricoltura/Appendici-linee-guida-ISPESL**, which describe the necessary actions to meet safety standards for tractors in case of capsizing.

Alongside safety promotion activities, the Plan also aims to increase inspection activity, by planning to check at least 680 agricultural companies and breeders each year. Supervision and inspection activity will also be carried out in workshops and companies that trade in agricultural machinery.
Another important subject regarding agricultural accidents is the use of phytosanitary products. The Plan's objective is to increase the number of inspections for the entire process that leads to the use of phytosanitary products – including authorisation to purchase, suitability of warehouses and storage places, and the use of personal safety equipment.

The Regional Agricultural Plan also deals with occupational diseases, an aspect which is still underestimated, especially in the breeding sector. The aim is to develop, in conjunction with the National Insurance Institute for Occupational Accidents, an epidemiological surveillance system to build a comprehensive picture of the phenomenon, and to recognise occupational diseases from an insurance point of view.

The consolidation of the training program conducted by LHT's Public Health Departments, in conjunction with the National Insurance Institute for Occupational Accidents, is going on, to teach safe practices for different work procedures. Training will be directed to agricultural workers, and in specific courses in agricultural high schools.

Prevention and early diagnosis of breast cancer - the diagnostic/treatment pathway for women with a hereditary risk

From January 2012 the Regional Health Service will organize specific diagnostic/treatment care pathways for women at risk of developing breast cancer due to hereditary factors or family connections.
The pathway is part of the general initiative that the Region has carried out for the prevention and early diagnosis of breast cancer: the screening program for early diagnosis, under way in Emilia-Romagna since 1996 for women between 50 and 69 years of age and, since 2010, for all women in the 45-74 age group, and, apart from the screening activities, performance of mammograms within 72 hours if referred as urgent, and within 7 days if classified as a deferrable urgency.

With the decision to make the diagnostic/treatment pathway available for women with a hereditary risk of developing breast cancer, a new and significant element has been added to the initiative for prevention and early diagnosis of breast cancer promoted by the Region.
This pathway is available to women who (a low percentage, 1-3 in 1,000), due to relatives who have had breast cancer, can be carriers of particular genetic profiles that increase the risk of developing breast cancer at a young age, and at a higher percentage of risk (+50-70%) than the rest of the female population.

The hub and spoke model for the diagnostic/ treatment pathway

The pathway is organised according to the hub and spoke model, used in the Region's programming for all high level specialities – primary level (spoke) hospital or territorial facilities connected to highly specialist hospital facilities (hubs) where patients are sent for highly complex diagnostic or treatment services.
In the diagnostic/treatment pathway for breast cancer in women with a hereditary/family risk, the spokes are Breast Centres in Health Trusts, and the hubs are Medical Genetics Centres at the University Hospital Trusts in Bologna (S. Orsola-Malpighi Policlinico Hospital), Parma (Maggiore Hospital), Modena (Policlinico Hospital) and in the Romagna Scientific Institute for the Study and Treatment of Cancer in Meldola.

The pathway is structured as follows.
Women who have had relatives with breast cancer, and who could therefore be carriers of genetic profiles at risk of developing breast cancer, can refer to their general practice physician or personnel in their LHT screening program for a risk assessment, which will be carried out by checking their family history with a special questionnaire.
After checking the family history, women with evident risk levels (according to the classification of risk profiles provided by the National Institute for Clinical Excellence) will be sent to the specialist Breast Centre (spoke) established in every Health Trust, where further investigation will be carried out.
If a moderate risk profile is confirmed the patient will be offered the direct care of the breast centre (Spoke), and of the personnel of the centre itself, for subsequent regular check-ups.
If a high risk genetic profile is confirmed, the woman will be sent to a Medical Genetics Centre after appropriate counselling – the hub centres of Bologna (S.Orsola-Malpighi Policlinico Hospital), Parma (Maggiore Hospital), Modena (Policlinico Hospital), and at the Romagna Scientific Institute for the Study and Treatment of Cancer in Meldola. If a high risk of developing breast cancer at a young age is confirmed, the woman will undergo the most appropriate regular check-ups and/or preventive surgery.
The genetic consultation could involve other female members of the family. The entire pathway is provided free of charge to the patient.

Prevention and surveillance of risks linked to facilities or treatment practices

Concern for the safety of patients and healthcare personnel during treatment processes is a priority in many initiatives, following indications of the Social and Healthcare Plan and other legislative acts, such as the Regional Government Resolution 1706/2009 and the annual planning and funding policies of the Health Trusts.

Objectives and commitments for Health Trusts

Every year the Region defines objectives related to the assessment and management of possible risks connected to medical activities, in addition to the related planning of actions and measures to protect patients and employees. Training initiatives for professionals in various disciplines have also been organised. In 2011, a training course was carried out in collaboration with the National Patient Safety Agency in the UK and the University Hospital Trust of Ferrara, on the analysis of critical events using the Significant Event Audit method.

The risk management system was verified during accreditation visits with a specific checklist to confirm the existence and contents of hospital safety plans, and gathering information on communication policies with patients and families in case of adverse events, and on compensation for any damages caused.

Safety protection tools

All Health Trusts continue their initiatives to promote and support the use of tools to improve global safety in healthcare environments. In particular:

- gathering reports and complaints by the public;
- a system of incident reporting: voluntary reporting of dangerous situations or accidents by workers, regardless of the severity of the outcome, in order to activate protective or preventive measures;
- recording compensation claims for damages suffered, also in accordance with Ministry of Health policies on monitoring healthcare failures;
- applying techniques that analyse critical points and events of care processes, aimed at studying unfavourable dynamics and identifying the resulting corrective actions, by scanning the processes to be improved (with specific methods such as the Failure Modes and Effects Analysis), and by reviewing occurred events and analysing causes (with tools such as Root Cause Analysis and auditing);
- introduction of efficacious practices and procedures to reduce known risks, such as implementation of systems for reliable identification of patients undergoing surgical operations or transfusions, antibiotic prophylaxis before surgery, evaluation of patients at risk of falling and prevention of falls, application of strict procedures in the management and administration of medicines;
- attention to relations with patients, including the ability to solve conflicts and to effectively manage administrative aspects in case compensation or reimbursement to damaged people;
- professionals' training on matters related to facilities, equipment and behaviours safety.

Safety in the operating theatre

In 2011 the experimental phase of a project to improve safety in operating theatres was completed. The project was addressed to doctors, surgeons, anaesthetists and nursing staff; it was coordinated by the Regional Healthcare and Social Agency and the University Hospital Trust of Modena, and it involved all Health Trusts and 16 accredited private organisations.

The second phase is being planned, to extend these improvements to the entire regional network of operating theatres.

Prevention and control of antibiotic-resistant infections

Resistance to antibiotics is a very relevant issue in public health. There are many causes but the inappropriate use of antibiotics, which encourages the selection of resistant bacteria, and the transmission of antibiotic-resistant micro-organisms in healthcare environments plays an important role.

The surveillance systems implemented over recent years highlight a growing trend in the use of antibiotics and antibiotic-resistant infections, in both the community and healthcare environments.

To tackle this issue many initiatives have been set up, to promote a responsible consumption of antibiotics in hospitals and in the community, and the adoption of effective measures to prevent healthcare-related infections.

Promotion of appropriate antibiotic use

Priority was given to the most frequent infections in the community, namely upper respiratory tract infections in children and urinary tract infections in adults.

The ProBa Children and Antibiotics Project

Informative material for parents has been prepared, and diagnostic/therapeutic guidelines have been produced for the management of pharyngotonsillitis and otitis. Training courses have been carried out in all Health Trusts, and rapid diagnostic tests have been made available to all paediatricians to facilitate diagnosis.

Guidelines for the appropriate treatment of urinary tract infections (UTI)

Guidelines have been developed by a multidisciplinary workgroup on behalf of the regional network. The guidelines deal with the management of uncomplicated UTIs, complicated UTIs (in men and users of bladder catheters), and UTIs in pregnant women. Quick guides summarising recommendations and information leaflets have been prepared for patients.

Preventing the risk of transmitting infections in healthcare environment

The plan is based on inspection programs in all Health Trusts, on network working at regional level, on tools and methodologies for risk detection and assessment, on promotion and adoption of effective healthcare measures.
Some of the actions implemented include:

- publication of the Compendium of Principal Measures for the Prevention and Control of Healthcare-related Infections, which identifies the measures to adopt in all healthcare environments;
- promotion of the increasingly wider participation of Health Trusts in regional surveillance programs in surgery;
- coordination at a national level of the WHO project Clean Care is Safer Care, aimed at promoting patient safety by improving hand hygiene practices of healthcare workers. Compliance with hand hygiene practices went from 37/100 instances before the campaign to 74/100 after, with an average relative increase of 100% and an average absolute increase of 37%.

The regional technical-scientific Commission

A technical-scientific Commission was established in 2011 for the responsible use of antibiotics and prevention of care-related infections, in order to promote the adoption of effective programs by Health Trusts, and to tackle the danger of antibiotic-resistant infections. The Commission plays a supporting role for the development of clinical management activity at a departmental, hospital, and Vast Area level, through:

- definition of criteria for the assessment of healthcare processes and their clinical outcomes;
- monitoring and surveillance initiatives on quality of care;
- proposals on clinical and organisational aspects of services, to promote the responsible use of antibiotics;
- technical-scientific support for the organization of activities on clinical governance, including permanent education, management of clinical and organisational innovation, and systematic and continuous assessment of care provision.

For more information visit:
http://asr.regione.emilia-romagna.it/

Emergency Room: services offered free of charge

The new Emergency Room payment exemptions have been in force in Emilia-Romagna since 1st May 2011, as defined with Regional Government resolution 389/2011, which increased the number of services offered free of chargeto citizens, as they constitute services which should be provided by Emergency Rooms. These new exemptions were identified by a workgroup (Emergency Regional Committee) established to improve strategies for accessing territorial medical emergency services and Emergency Rooms, while monitoring at the same time the application of the previous resolution, 1035/2009, which identified an initial group of Emergency Room services not requiring prescription charges.
It must be specified that colour codes assigned when entering Emergency Room only define the priority of the visit, and do not indicate the possible share of costs.
The list of Emergency Room services deemed appropriate for exemption from charges, as stipulated by the Regional Government resolutions 1035/2009 and 389/2011, includes:

- trauma occurred in the previous 24 hours;
- trauma occurred more than 24 hours before, that required therapeutic intervention;
- acute poisoning;
- occupational accident;
- renal colic, asthma attack, chest pain, cardiac arrhythmias, acute glaucoma, foreign body in the eye, nosebleed, foreign body in the ear;
- complications after surgery that require Emergency room treatment within 3 days following hospital discharge;
- problems and symptoms relating to pregnancy.

Other services free of charge, according to the aforementioned resolutions, are:

- subjects put under intensive short stay observation for treatment or diagnostic investigations that require observation time ranging from 6 to 24 hours;
- subjects admitted to any hospital ward;
- subjects referring to Emergency Room at the request of a general practice physician/paediatrician, out-of-hours services, or doctors in other Emergency Rooms;
- anyone under 14 years of age;
- subjects exempt from prescription charge because of an illness, income, or any other exemption condition defined by regional and national legislation;
- temporarily resident foreigners considered as needy people.

Care guidelines for people with epilepsy

With Regional Government resolution 2073/2010, Emilia-Romagna approved the guidelines for Health Trusts on organising healthcare for people with epilepsy (approximately 22,000 in Emilia-Romagna).
The document represents another step in the development of integrated healthcare in Emilia-Romagna and, more generally, to enhance full social integration for people with epilepsy.
The cornerstones of the document include prevention, the diagnostic-therapeutic pathway, continuity of social-health care, health promotion.

The joint effort of Region, AICE, and LICE

The guidelines are the result of the work of a special regional workgroup with the contribution from the Italian Association Against Epilepsy (AICE), which brings together patients and their families, and the Scientific Association LICE (Italian League Against Epilepsy), which brings together experts at a national level.

Contents of the guidelines

The guidelines commit Health Trusts to develop a uniform, integrated network of healthcare services throughout the region, starting from prevention initiatives.

Prevention measures are aimed at reducing the incidence of the disease and its prevalence, on the basis of the appropriate and early management of the patient; they also aim to tackle pathology's consequences and social marginalisation: prevention measure focus on "quality of life" principles, one of the most neglected aspects in the management of epilepsy patients.

The guidelines also define the diagnostic-therapeutic pathway that Health Trusts should identify to manage emergency during epileptic seizures (starting from Emergency Rooms), and the requirements for care facilities.

The management of patients with epilepsy requires the identification of dedicated clinics in every Health Trust. These clinics must have epilepsy experts to make diagnoses and start the patient's social-health handling and treatment, for adults, children and teenagers, using standard neurophysiologic exams, conventional neuroradiological examinations, and tests for the dosage of anti-epileptic drugs; clinics should also ensure access to specialist consultations and integration or social inclusion pathways, in collaboration with the Legal Medicine Departments in Health Trusts.
At a regional or Vast Area level, patient management requires the availability of facilities with technological equipment and personnel able to perform complex tests (specific neurophysiologic exams, complex neuroradiological examinations, neuropsychological evaluations, genetic consultations, any innovative treatments).
The Regional Referral Centre for surgery management is at the Research Hospital Institute of Neurosciences (Bellaria Hospital) of Bologna Local Health Trust. The Centre enrolls professionals with specific skills, is provided with high-level diagnostic equipment and activities, and has the task of identifying patients who, due to specific aspects of their condition, could benefit from surgery.

The guidelines also define ongoing social-healthcare pathways, both between territorial facilities and hospitals, and for defining individual handling programs, especially considering integration at school or work and rehabilitation activities. Specific focus has been placed on the need for Health Trusts to develop initiatives and actions (starting with training for healthcare workers) to support the personal life of people with epilepsy and their families, in terms of an emotional-relational perspective, and in terms of increased knowledge and daily management of the disorder and administrative procedures (e.g. acknowledgment of the pathology, prescription charge exemptions, driving licence).

The new Plan to manage waiting lists for outpatient specialist care and planned hospital admissions

The new three-year plan to manage waiting lists (2010-2012) was approved by the Regional Government with resolution 925 of 27th June 2011, within the timescales established by the State-Regions Agreement on 28th October 2010 and the National Plan to reduce waiting lists.

To finance the Plan, which had been authorised by the Assembly Commission for Health and Social Policy prior to the Regional Government's approval with no contrary votes, the Region has allocated special funding for 2011 amounting to 10 million Euros, to be split among the Local Health Trusts; the possibility of additional funding for 2012 will be discussed.

The new Plan regards outpatient specialist care and planned hospital admissions, and confirms the indications contained in Regional Government's resolutions 1532/2006, 73/2007, and 1035/2009.
In particular the Plan covers also cardiovascular and oncology areas, as required at a national level. A priority consideration is the development of diagnostic/treatment pathways, which may include specialist examinations and tests and hospital admission care, with the definition of related waiting times (within 30 days for diagnosis and within 30 days more for beginning the treatment), the aim being to ensure prompt diagnosis and treatment.

The new Plan's key word is appropriateness throughout the care pathway, from prescription, through planning, to delivery.

Specialist visits and tests

Whilst the commitment to ensure specialist examinations and tests within times established by legislation has been renewed (24 hours for emergencies, 7 days for deferrable urgencies, 30 days for the first scheduled visits and 60 days for scheduled instrumental diagnostics), the Plan places specific emphasis on appropriateness during the different phases of the pathway, starting from prescription.

As illustrated by data relating to 2010 and information from recent years (*see page 22*) Emilia-Romagna passed from over 60 million specialist visits in 2003 to more than 76 million in 2010.
Therefore, if this service needs to be guaranteed, it is also necessary to require a serious commitment both from professionals, to improve the appropriateness of diagnostic investigations requests, and also from Health Trusts to improve planning and organisation, by defining distinct pathways between initial visits and check-ups, diagnostic investigatory visits and tests and follow-up appointments, emergencies.

The pursuit of appropriateness in prescribing specialist visits and tests requires the use of diagnostic protocols for conditions identified as being a priority (e.g. oncologic and cardiovascular conditions), and the correct indication of diagnosis and access priority on the treatment prescription. An improvement in appropriateness should also consider the organisational model issued by Health Trusts. This model must consider the planning for the provision of specialist tests and visits in the different access modes (emergency, deferrable urgency, programmable, treatment, diagnostic or direct access pathways); guaranteed pathways to be offered to the public (using accredited private facilities and freelance profession if necessary) to continually ensure compliance with waiting lists; round-the-clock opening hours, without interruptions, at unified booking centres (CUP); consolidation of the appropriate use of day services (organisational method for diagnostic investigations established by the specialist for complex cases).

The commitment to monitor all specialist outpatient visits and tp publish the results on a set of services on the site **http://www.tdaer.it** with three-monthly updates is also stressed.

Planned hospital admissions

The new Plan to manage waiting times also deals with planned hospital admissions, where appropriateness needs to be applied to the entire pathway, from prescription, to organization and delivery.
In particular, as established at national level, the focus is on defining maximum waiting times and percentages for specific interventions: surgery for cervical, breast, colorectal cancer (within 30 days from the operation being advised in 100% of cases), coronary angioplasty and aortocoronary bypass operations (within 60 days in 90% of cases), carotid endarterectomy (within 90 days in 90% of cases), cataract removal and hip replacement operations (180 days in 90% of cases).

Appropriateness, which is necessary for ensuring equal access to elective admission services, can be interpreted as the requirement to indicate a time period within which a patient will be notified, when that patient goes on a waiting list; the definition of diagnostic/treatment pathways, in conjunction with other Health Trusts if necessary; monitoring waiting times with particular reference to those services already mentioned, defined at a national level as the subject of specific monitoring.

Use of SOLE network, communication with citizens

The correct organisation and management of pathways for specialist outpatient services and planned admissions is facilitated by the consolidation of the SOLE network (online healthcare), the information technology infrastructure which puts general practice physicians and paediatricians in touch with specialists and facilities in Health Trusts, to exchange medical documents, such as prescriptions and reports, while respecting privacy laws.
As for communication with citizens, the new Plan requires Health Trusts to further develop the initiatives already indicated in the previous three-year plan (resolution 1035/2009).

Health Trust Implementation Programs

Within 60 days from the approval of resolution 925/2011, Health Trusts, Hospital Trusts, University Hospital Trusts and Research Hospitals (if existing in the area) have to elaborate their Implementation Plans, previously agreed with Territorial Social and Healthcare Conferences which, in turn, will have shared them with social forces and citizens' representatives. These Programs must be submitted for the evaluation of the Regional Coordinating Committee.

When preparing the Program (which represents an update on the 2009 Program with indications from the new regional Plan), special attention should be given to specific aspects of outpatient specialist care and planned hospital admission The purpose is to guarantee an appropriate service, in the adequate location and within appropriate timescales according to patients' needs.

For outpatient specialist care:

- assessment of the appropriateness level of prescribed care, by checking the diagnosis on prescriptions;
- update of the production plan layout by assessing needs and quantifying the services supplied, by also planning guaranteed pathways to respect maximum timescales;
- monitoring waiting times trend;
- clarification of the different access methods for planned specialist services, emergencies, and patient handling pathways including day services;
- distinction in booking agendas of first visits and check-ups, follow-up appointments, services not arranged through the Unified booking centres, round-the-clock agendas, monitoring of withdrawals and cancellations;
- improvement in the completeness and accuracy of data transmission to the Region, with regard in particular to flows on outpatient specialist care and on monitoring accesses to outpatient specialist services;
- conclusion of the Health Trust communication program.

For planned admission care:

- trend assessment of waiting lists for monitored services and for services involving greater criticality;
- production planning and formulation of strategies for its readjustment, if necessary also with other Health Trusts, in order to reduce waiting lists and favour service delivery in accordance with user preferences, possibly referring users to other facilities with shorter waiting lists;
- verification of agenda management methods, for the correct identification of booking information;
- identification and training of personnel who will be in contact with patients, to ensure reliable referrals in the phases preceding and preparing admission, which must be explained to patients;
- recognition of criteria for assigning priorities, shared at a regional level.

Program for the regional Fund for non self-sufficient people

For 2011, Emilia-Romagna Region increased the amount of resources available for its Fund for non self-sufficient people, with 461.6 million Euros (+36 million compared with 2010), 151 million of which came from the regional budget. The need to intervene with such an amount resulted from the decision ot the Italian Government to radically cut the national Fund for non self-sufficient people, leaving Emilia-Romagna with 30 million Euros less (this was the share for the Region from the 400 million amount initially allocated to the National Fund and then cancelled by the Government).
The Region, while continuing its request to the Government to reconsider this short-sighted and unjust decision, has strengthened and extended its contribution, in order to support families looking after non self-sufficient relatives at home.
Overall, also considering residual resources (planned for 2010 but unused), the regional Fund for non self-sufficient people can count on 501 million Euros in 2011.

Programming

The Fund is programmed with local annual activity plans, on the basis of regional policies indicated by the Regional Control Room for Welfare (the regional seat devoted to the interaction between the Region and Local Authorities for social and healthcare policies) and shared with Trade Unions and citizens' representatives.
Funds are shared between Territorial Social and Healthcare Conferences according to Health District, considering resident population aged over 75 years and the number of persons affected by severe and very serious disabilities.
The plan drafting, including priorities for the Fund allocation between the various services and initiatives measured according to local needs, is responsibility of District Committees (which include all the Municipalities within Health District territories), in consultation with the Health Trust District's Manager.

Funded services, objectives for 2011, accreditation

The priority, already defined during the approval of the first three-year Fund distribution program in 2009, is to support home care to allow as many non self-sufficient people as possible to live in their own homes.
Since the Government decided to cut resources and cancel the national Fund, and introduced cuts at a local government level, 2011 objectives set by the Region and planned with local governments and Trade Unions have been focused on maintaining services which were planned and implemented in previous years, continuing uniform service provision among communities, in accordance with the needs expressed.

Funded services include:

- integrated home care (health and social);
- care allowances for non self-sufficient elderly with specific attention given to those not receiving any allowance;
- qualification and regularization of family assistants (through training and "counselling centres" and an additional contribution to the family assistant allowance of 160 Euros per month for their regularization);
- implementation of services of telephone emergency and assistance, managed also with volunteers;
- temporary "relief" admissions in residential homes;
- support to informal networks of social solidarity (from "doorman" to social "custodian"…).

The accreditation procedure for home care services and social/health care facilities for the elderly and disabled started in 2011, therefore these services and facilities are also involved in the process set up by the Region to ensure quality of the services and facilities of the Regional Healthcare Service *(for further information on accreditation see Page 73).*

Multidisciplinary integration, appropriateness and continuity of care, planning and control of care organisation are the cornerstones of the three-year Regional Addiction Program 2011-2013 approved by the Regional Government (resolution 999/2011).
The document specifies objectives, organisational requirements and indicators for each area of intervention, at a Health Trust or Vast Area level.
The program further develops the path started with the implementation of the Mental Health and Pathologic Addictions Departments in Local Health Trusts, which integrated the two disciplines to strengthen the overall approach to individual treatment (from prevention to rehabilitation), and connects all the professionals involved in the care system (general practice physicians, Health Trust services, Municipalities, volunteers, accredited private organisations).

Condition of the new Program is the conclusion in these years of the official accreditation process for all clinic, residential and semi-residential facilities that have decided to work on behalf of the Regional Health Service, and must therefore satisfy the required quality standards for the services provided.

A network system for prompt patient management and for prevention

In accordance with the Regional Program, Health Trusts must develop different pathways that facilitate access to services for adolescents, immigrants, abusers of psychostimulants and cocaine, alcohol abusers and smokers.
The purpose it still to develop a network system, along with the strengthening of low-threshold support services (on-the-road units set up by the healthcare services, associations and Municipalities), that acts as a catch-all system and is able to recognise social unease situations, creating conditions for prompt management of the individual. Specific focus has been placed on compulsive gamblers; at a regional level, recommendations will be issued to facilitate access to services for these individuals, with indications on healthcare paths.

The program defines the aims of the partnership between Local Health Trusts and local organisations, in particular for health promotion, work initiatives with social value, and care actions to support therapeutic programs. The world of work is one priority; projects implemented by Mental Health and Pathologic Addictions Departments with Services for Occupational Prevention and Safety of the Local Health Trusts will be increased, in order to make workers aware of the risk of smoking, drinking and taking substances in the workplace (and in hospitals), and inform them on healthcare and detoxification programs provided by Health Trusts and private organisations.

Particular attention has been given to people in prisons in the Region, who must be guaranteed continuity of care at the time of imprisonment and after release. An IT system is set up in each prison to manage computerised medical records for convicts cared by the Substance Abuse Services of the Local Health Trusts.

Health promotion and prevention on consumption of alcohol, tobacco, drugs concern more the social relationships at the basis of risky behaviours, not the single substances. The purpose of the Regional Program is therefore to implement community projects in various relationship frameworks (at school and in daily/work environments), to overcome episodic intervention and stabilise forms of community coordination among different subjects in health and social areas, with an overall approach to the person's lifestyle (also considering, for example, diet and exercise).
The need to develop specific communication with younger people is also emphasized, using new technologies, especially internet and social networks.

Observatories, the new Information System

The Regional Program enhances the implementation of the activities of Local Health Trusts' Observatories and of the regional Observatory, whose main purpose is to provide data, information, and work tools to Substance Abuse Services professionals. In particular, the aim is to set up the new IT system of the Substance Abuse Services which will provide detailed information and will be consistent with the national IT system for substance abuse. One of the experimental projects includes the activation of a surveillance system in the Province of Bologna, to get to know which substances are in circulation. In addition to the Region, also the Provincial Police Department, the University, Health Trusts and various Municipalities of the Province of Bologna participate in this project.

Monitoring of the agreement between the Region and Auxiliary Organisations

One of the objectives of the Regional Addiction Program is to monitor the 2010 agreement between the Region and the Coordination of Auxiliary Organizations (resolution 246/2010), aimed in particular at consolidating the appropriateness and quality of services provided by residential facilities for substance abusers, and at developing tools for needs analysis, monitoring, and assessment of healthcare pathways.

The Regional Program to reform the Judicial Psychiatric Hospital in Reggio Emilia

Following the transfer of the necessary functions and resources to the National and Regional Healthcare Service, healthcare in these institutions is being updated and improved.
The aim is to provide true guarantees of fairness and continuity of care for people with psychiatric disorders who have committed crimes.
Emilia-Romagna Region is strongly committed on this front, adopting a decentralisation policy aimed at the reorganisation, regionalisation and the reform of the Judicial Psychiatric Hospital in Reggio Emilia (one of six in Italy).

The reform process aims at the construction of an integrated system based on the following principles:

- consolidation of mental health intervention in prisons, collaborating with Substance Abuse Services (already present in prisons), working to prevent the use of the Judicial Psychiatric Hospital for unexpected illnesses or psychiatric observation;
- consolidation of medical intervention in the Judicial Psychiatric Hospital;
- joint activities with the Regions that will use the Judicial Psychiatric Hospital of Reggio Emilia;
- development of alternative measures to the Judicial Psychiatric Hospital, through residential and territorial programs with different levels of protection.

In this framework the Region actively participated in drawing up a State-Regions Agreement on the gradual reform of Judicial Psychiatric Hospitals, which was approved by the Unified Conference on 26th November 2009, and redefined catchment areas for Judicial Psychiatric Hospitals.
On the basis of this redefinition, the Regions that refer to the Judicial Psychiatric Hospital of Reggio Emilia are Emilia-Romagna, Veneto, Friuli-Venezia Giulia, Marche and the Autonomous Provinces of Trento and Bolzano.
In a national framework Emilia-Romagna plays a coordination role with the Regions in its catchment area, to define an action plan aimed at achieving the aforementioned objectives using three-monthly monitoring tools, which will provide useful information for planning and creating suitable pathways for inmates.

With regard to the Reggio Emilia facility, the Region is aware of its inadequacy for the new project, as it was originally designed as a detention facility only, and has set up two parallel paths.
One path regards the search of a new facility for inmates in the Judicial Psychiatric Hospital; a feasibility study to renovate part of the Castelfranco Emilia prison did not have a positive outcome regarding the cost-benefit ratio, and a new planning phase was therefore started. The other path regards the possibility of discharging patients, through community management services, even if they will be subject to custodial or control measures by the Judicial Authorities, in a non-prison setting and in facilities which are strongly orientated towards treatment and rehabilitation.
In this framework the Region is financing a psychiatric rehabilitation residence in Sadurano in the Forli area, where patients of the Judicial Psychiatric Hospital of Reggio Emilia are hosted, while preparing for discharge. Furthermore, for all Emilia-Romagna users coming from Judicial Psychiatric Hospitals throughout the country, through the Mental Health and Pathologic Addictions Departments of the Local Health Trusts, the Region supports ad hoc therapeutic-rehabilitation projects that imply accommodation in health and socio-health facilities and return home, supporting the patient with all necessary actions for a gradual return in society.

Official List of Drugs with expired patent

Generic medicines have been considered in national financial measures for some years.
In the May 2010 budget (legislative decree 78 of 31st May 2010 converted in Law 122 of 31st July 2010), the Italian Drug Agency (AIFA) announced a complete reassessment of benchmark prices for these medicines, on the basis of comparisons with European markets. In April 2011 AIFA published the redefinition of reimbursement prices to National Health Service.
A temporary misalignment with prices actually available on the market required citizens to partly share the costs. The majority of generic medicine manufacturers quickly chose to align prices, thus reducing financial hardship for citizens.

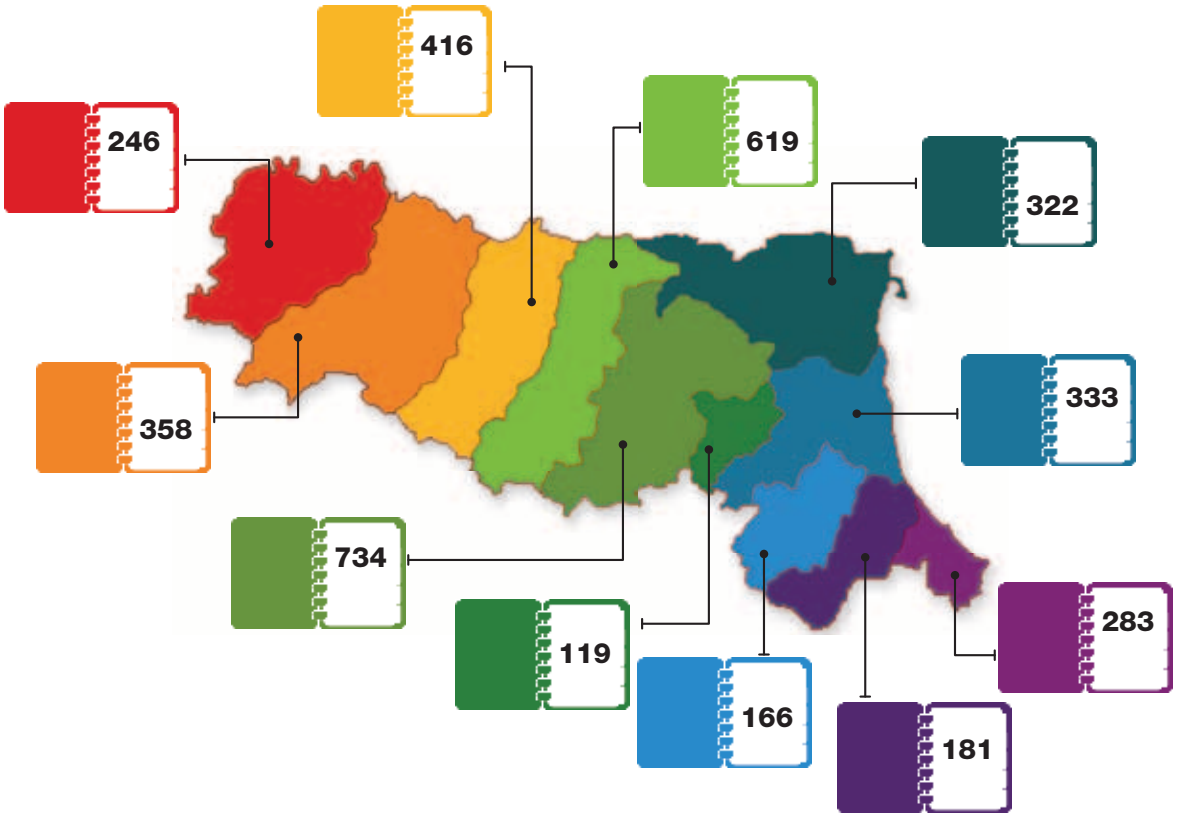
Emilia-Romagna Region has been committed to raising awareness and developing professionals' sensibility on patent-expired drugs, and when AIFA redefined prices, it provided an important prescribing tool for doctors: the Official List of Drugs with expired patent.

Prescribing doctors (general practice physicians, paediatricians, hospital and territorial specialists) will be able to consult the handbook for details on generic medicines, with information on treatment equivalence, retail price, NHS reimbursement price, any differences between the NHS reimbursement price and the retail price.
The structure of the List enables physicians to identify, within each therapeutic category, the patent-expired molecules and to choose those for which citizens are not required to share the cost, or share the lower amount.
4,000 copies of the List have been published and made available to general practice physicians and paediatricians.

The Official List is available for other health professionals in a digital version on the Regional Health Service portal at **http://www.saluter.it/documentazione/rapporti/equivalenti_prontuario_giugno2011.pdf** and, via password access, on the Sole portal where monthly updates are published at **http://www.progetto-sole.it**.
Printed updates are planned annually.

The Official List of Drugs with expired patent is one of the actions implemented by Emilia-Romagna Region to provide treatment with lower financial impact on the Health Service and the public, while maintaining the same standards of appropriateness, effectiveness and safety.

Distribution of the Official List of Drugs with expired patent throughout the Region (no. of general practice physicians and paediatricians)



Hub and spoke model for hospital care

Regional programming has provided for the adoption of a specific network model for organising high specialty hospital care, namely the hub and spoke model. This model is based on the connection between hubs (high specialty centres) and spokes (local hospitals or facilities); the latter can send their patients to hubs when their medical condition requires it. This planning has been extended to a regional level, and operates alongside local programming, ensuring services that guarantee regional self-sufficiency.
There are various hub and spoke networks already operating:

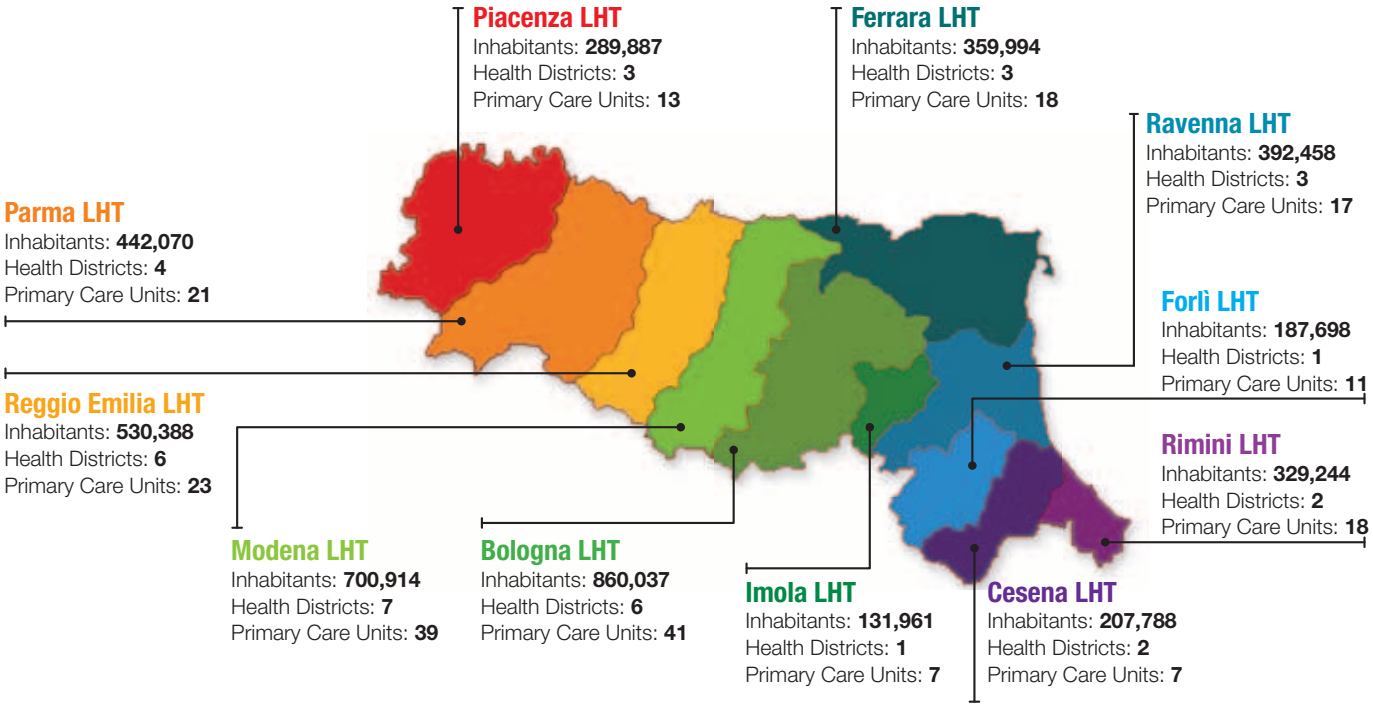
- cardiology and cardiac surgery
- neurosciences
- transplants
- severe traumas
- serious burns
- perinatal and paediatric intensive care
- highly-specialist rehabilitation
- 118 system (emergency service number)
- transfusion system
- networks for specific rare diseases
- genetics.

In accordance with national law 38/2010 and with the Regional Government resolution 967/2011, a coordination structure is being defined, which will have the task of correctly dimensioning the hub and spoke network for pain therapy. With the renewal of the Regional Oncologic Commission (Regional Government resolution 519/2011), the planning for the regional oncologic network was started, which includes the new Institute of Advanced Technologies and Care Models in Oncology Research Hospital (status conferred in 2011 within the Hospital Trust of Reggio Emilia) and Romagna Scientific Institute for the Study and Treatment of Cancer in Meldola, which has applied for research hospital status (expected in 2011). Work to define networks for oncologic orthopaedics, spine surgery, paediatric orthopaedics, prosthetics/surgery for serious infectious bone diseases, and foot surgery is in progress. Their hub centres will be based at the Rizzoli Research Hospital of Bologna, as outlined in the agreement between the Region and Rizzoli (resolution 608/2009).
Other networks are being planned, including a highly complex laboratory diagnostics network and a pneumology network.

Organization of the Health District

Health Districts ensure the delivery of Essential Levels of Care. They are the framework where requirements are gathered, services are planned, healthcare and social-health care is provided, and results are assessed.
Health Districts commission services from various Departments – territorial departments (Primary Care Departments, Public Health Departments, Mental Health and Pathological Addictions Departments) and hospital departments.
The Primary Care Department is organised in Primary Care Units.
As of 31st December 2010 there were 38 Health Districts and 215 Primary Care Units.

Health Districts, Primary Healthcare Units, reference population* – Year 2010



(*) Population as of 31/12/2010.

The Healthcare Home

Emilia-Romagna Region has been working for some years to establish in all Local Health Trusts Primary Care Departments and their local distribution, and Primary Care Units, whose facilities constitute one of the basic elements for facilitating the best management of patients. In these facilities it is possible to deliver effective, continuous daytime care, and the integration of professionals can be best achieved, in particular of general practice physicians and paediatricians, out of hours service doctors, outpatient specialists, nurses, obstetricians, and social workers.

The evolution of Primary Care Units consists in the creation of healthcare and social-health facilities that serve as a reference point for citizens and meet their requirements at any time of day: Healthcare Homes set up by the Region with Government Resolution 291/2010.

The Healthcare Home has the following purposes:
- to ensure a single point of access for citizens,
- to guarantee continuity of care,
- to organise and coordinate responses for citizens,
- to strengthen integration with the hospital in particular for protected discharges,
- to improve the integrated handling of patients with mental health problems,
- to develop prevention programs addressed to single persons, the community, and specific target populations,
- to promote and valorize citizens' participation,
- to provide ongoing education and training for healthcare workers.

Healthcare Homes can have different degrees of complexity depending on the density of the reference community population and their geographical location.
There are three types of Healthcare Home:

The "small" Healthcare Home

It guarantees general medical assistance 12 hours a day (8 a.m. till 8 p.m.), nursing care, 1st level Family advisory health centre with obstetrician, coordination department for home care, and Unified booking centre. A social worker is also available.

The "medium" Healthcare Home

It guarantees also outpatient specialist services, out-of-hours service (therefore 24-hr assistance), paediatric clinic, public health clinics for vaccinations and screening activities. A gymnasium for physical exercise can also be available.

The "large" Healthcare Home

It guarantees all healthcare activities relating to primary care, public health and mental health. It ensures a response to health and social-health needs that do not require hospitalisation.

The Healthcare Home delivers both health and social-health services in one single facility.

Planned Healthcare Homes as of 31st December 2010

As of 31st December 2010 Local Health Trusts planned the creation of 30 Healthcare Homes organised by Health District:

- 4 in Piacenza (West Health District: Borgonovo; East Health District: Podenzano, Carpaneto piacentino, Monticelli d'Ongina);
- 2 in Parma (Parma Health District: Lubiana-S.Lazzaro; South-East Health District);
- 7 in Reggio Emilia (Reggio Emilia Health District: East, West, North, Puianello; Correggio Health District: Fabbrico, Scandiano Health District: Casalgrande, Castellarano);
- 2 in Modena (Mirandola Health District: Finale Emilia; Modena Health District);
- 4 in Bologna, 3 at the Local Health Trusts of Bologna (City of Bologna Health District: Navile; Pianura Ovest Health District: Crevalcore; Pianura Est Health District: Pieve di Cento) and 1 at the Local Health Trust of Imola (Imola Health District: Castel S.Pietro Terme-Dozza);
- 2 in Ferrara (South-East Health District: Portomaggiore; West Health District: Bondeno);
- 3 in Ravenna (Faenza Health District: Brisighella; Ravenna Health District: Cervia; Lugo Health District: Bagnacavallo);
- 3 in Forlì-Cesena, 1 at the Local Health Trust of Forlì (Forlì Health District: Castrocaro); 2 at the Local Health Trust of Cesena (Cesena-Valle del Savio Health District: Mercato Saraceno; Rubicone Health District: Savignano);
- 3 in Rimini (Rimini Health District: Rimini Celle, Santarcangelo di Romagna; Riccione Health District: Coriano).

Profile of the Primary Care Units

In order to promote and maintain care quality, while simultaneously developing integration and relationships between GPs, epidemiological and analytical data on the reference population's state of health and use of services must be made available to these professionals.
The analysis of these data allows to achieve numerous aims, including the sharing and implementation of clinical and organisational standards in professional activity, and the creation of coordination forms (between professionals themselves and between professionals and Local Health Trusts and Health Districts), in tune with the services required to respond to patients' needs.

In order to achieve this aim the Region has provided all the Local Health Trusts with Profiles of Primary Care Units, an annual report that – using epidemiological methods – enables the evaluation and comparison of healthcare practices in relation to the state of health of the population, for each Unit and between Units.

The Profile of the Primary Care Unit is available to Unit coordinators, with the support of Primary Care Departments, to promote sharing and collaboration between doctors, providing them with standard work terms and procedures on clinical governance.

The Profile was initially experimented at Parma and Reggio Emilia Local Health Trusts in conjunction with Jefferson Medical College of Philadelphia (USA) and the Regional Healthcare and Social Agency. For each Primary Care Unit it presents the following information:

- characteristics of GPs and patients;
- estimate of the prevalence of some chronic conditions;
- with regard to hospital care:
  - hospitalisation rate;
  - conditions responsive to outpatient treatment;
  - potentially inappropriate hospitalisations;
- with regard to pharmaceutical treatment;
  - medicine consumption;
- with regard to specialist care:
  - consumption rate for diagnostics, laboratory activities, specialist examinations;
  - visits to Emergency Room with the provision of specialist services;
- quality indicators (created by cross-referencing information on prescriptions for medicines and specialist services, and on hospital admissions);
  - patients with cardiovascular disease: pharmacological treatment and patient monitoring after acute heart attack; cholesterol screening in patients with cardiovascular problems, pharmacological treatment and monitoring after hospitalisation for cardiac decompensation;
  - diabetic patients: annual monitoring for glycated haemoglobin, lipid profile, eye examination, creatinine, ECG and microalbuminuria;
  - asthmatic patients: appropriateness verification of pharmacological treatment in asthmatic patients.

A scientific committee was established to define the contents of Profiles (involving representatives indicated by Local Health Trusts, by the Regional Department for Healthcare Policies, the Regional Healthcare and Social Agency, and the Jefferson Medical College).
In addition to defining the Profile contents, this committee has the task of monitoring the project progress. Data elaboration and preparation of Profiles is entrusted to the Region. To facilitate data processing all information comes from the Healthcare and social policy and information system.

All Profiles are available at **http://www.regione.emilia-romagna.it/prim/profili_NCP.htm**. Support material for preparing the Profiles, and the Profiles themselves, can be accessed only with a password.

A training course has been organised to support Health Trusts in the distribution and use of the Profiles, aimed at developing local professional skills to ensure that Local Health Trusts gradually become self-managing, and can maintain them over time.

Agreements between the Region, general practice physicians and paediatricians

The regional supplementary agreements, confirmingly to the implementation of the National Collective Agreements of 8th July 2010, were signed in July 2011 by the Region and Trade Union's representatives of general practice physicians (Italian Federation of GPs, Independent Italian Doctors' Union, Italian Doctors' Union, Union Agreement) and paediatricians (Federation of Italian Paediatricians, Italian Paediatrics' Confederation), and were approved with Regional Government resolutions 1116/2011 and 1117/2011.

National agreements

National agreements identified some areas of strategic importance for the future of primary care in Italy, in particular regarding the promotion of new forms of organisation for general practice and family paediatrics, and functional relationships between professionals; the promotion of user access to services; the possibility for professionals of accessing the medical information of their patients in real time; the development of proactive medicine, prevention activities and care programs targeted at the most complex cases; improvement in the management of patients suffering from chronic conditions and increasing adherence to standards of diagnosis and treatment; the definition and monitoring of quality healthcare indicators; and evaluation of the appropriateness of services delivered.

Contents of Regional Agreements

The regional supplementary agreements for doctors and paediatricians stress the importance of computerisation and the use of ICT systems made available by the Region. All professionals must be able to manage individual medical records, and print prescriptions and specialist referral letters in their practices using IT systems, as well as being able to connect to the SOLE network (online healthcare), the network which connects general practice physicians, paediatricians, other professionals and Health Trusts for the exchange of information *(for further information on SOLE see page 71).*

In agreement with Trade Unions, the Region is developing technological solutions which allow the fulfilment of admnistrative tasks without additional burden on care activity. Furthermore, "paperless" communication to transmit information between Health Trusts and professionals will become more and more widespread.

The agreements have finally made it compulsory to join Primary Care Units as the organisations providing the link between doctors operating in the community, to ensure a mutual exchange of experience, relationships with other community care services, sharing of strategies, guidelines, care methods, and improvement of professional practices to guarantee continuity of care.

The use of Primary Care Paediatric Units will also be compulsory for paediatricians, to encourage – like for GPs – the mutual exchange of experience, planning, coordination of professional practices, and their monitoring and evaluation.

A particularly significant feature of the regional agreements regards the development of proactive medicine and the handling of patients suffering from chronic conditions.

In particular for GPs, a partnership was implemented to define a survey of some chronic conditions at a territorial level, using information available to professionals: chronic cardiac compensation and chronic obstructive broncopneumopathy are the conditions to be identified.
For paediatricians a survey of some potentially predictive situations leading to a risk of obesity has been agreed.

To support the development of proactive medicine and to identify chronic conditions for which clinical management pathways must be set up or expanded, up-to-date information must be available on the prevalence of the main chronic conditions at a territorial level.

Up to now data available at a regional level come from information relating to administrative flows contained in the regional information system. With the involvement of doctors and paediatricians adding information from their computerised medical records, an improvement of the quality of information available will be possible, for an increasingly precise planning useful for managing care activities.
Finally, with regard to general practice physicians, the agreement stipulates the distribution and use of the Profiles of the Primary Care Unit in all Health Trusts, as a tool to promote quality care, and the development of integration and relationships among GPs *(for further information on the Profiles of the Primary Care Unit see page 68).*

Agreement between the Regional Health Service and the Mountain Rescue Service

A single agreement for the entire Regional Health Service, to regulate mountain rescue via land (in the Alps, in caves and ravines) and with helicopters, was signed in May 2011 by the Local Health Trust of Bologna, on behalf of the entire Regional Health Service and by the Emilia-Romagna Mountain Rescue Service (regional section of the National Mountain and Cave Rescue Corps, appointed by national law 71/2001 for rescue services on alpine routes, in caves, or in the event of avalanches). It supersedes all previous agreements with individual Health Trusts and therefore enables the uniform development of mountain rescue services throughout the region, and the improvement of co-operation between the Healthcare Service and the Mountain Rescue Service.

The aims of the agreement are to improve the coordination of mountain and cave rescue services; to standardise procedures throughout regional territory, further developing integration between personnel in the emergency services and volunteers in the Emilia-Romagna Mountain Rescue Service; to enable the use of 118 emergency services personnel during service hours in mountain rescue activities with a winch.
The agreement provides for the use of Regional Health Service personnel during working hours for the Pavullo helicopter base, the only one in the region with a helicopter and winch (until now doctors and nurses from the 118 emergency services were voluntary). This is an important addition which also better guarantees the safety of employees themselves, as they will be suitably trained by the Mountain Rescue Service to offer assistance in the particular conditions of the Apennine areas. The Regional Health Service team will work with Mountain Rescue personnel, who will support them in winch operations to operate in safety in the mountains, on cliffs, or in other potentially dangerous situations.

The agreement confirms that the management of emergency calls will remain the responsibility of the local emergency 118 operations centres, whereas the Mountain Rescue Service, which will intervene with its technical staff and volunteers, will be responsible for coordinating ground operations (recovery of missing or injured persons, cave assistance).

The agreement provides for the setting up of a Regional Committee, which will include employees of the Regional Health Service and of the Emilia-Romagna Mountain Rescue Service. The task of the Committee is to establish protocols and operational procedures, personnel training activities, and to monitor the progress of activities.

Agreement between Emilia-Romagna Region and the Private Hospitals Associations (AIOP)

Year 2011 opened with an important new feature: the conclusion of the accreditation process for private hospitals.
The Regional Health Service has been stipulating agreements with private hospitals since 1996. Now with accreditation they will take on a structural role within the Regional Health Service, and become an integral part of the social-health system in the Region which is fully accountable to the public, and hinges on network co-operation.
In addition to being a target, full accreditation should also be considered as a starting point for a further boost towards integration, with the awareness that accredited private facilities play an integral role in the Regional Health Service and not an opposing one, in a framework which has guided the relationship between the Region and the Private Hospitals Association from the mid '90s until the present day, with planning which has shown mutual respect for the other's role.
2011 also saw the renewal of agreements for which a statement of agreement was signed on 30th December 2011 between Emilia-Romagna Region and AIOP, providing general policy guidelines. The aim is to further reinforce areas of integration, making private services increasingly consistent with regional and local planning. The negotiations for the new agreement occurred in a very critical time for economy, that the parties responsibly acknowledged in the statement of agreement on 30th December 2010, stipulating to work for a change entirely aimed at improving production and defining larger areas of integration, with basically unchanged resources.
It is therefore important to emphasise that in the 4 years of existence of the previous agreement, the Region guaranteed an increase in resources to the private hospital sector of 8.43%, equivalent to approximately 26.5 million Euros. Approval of the new agreement is expected in 2011.

The SOLE network (online healthcare), Patient summary, electronic medical file

As of July 2011, 3,707 general practice physicians and paediatricians are connected within the SOLE network (98% of the contracting general practice physicians and paediatricians). Each professional is provided with a PC, printer, safe internet connection, and medical records software to communicate with Health Trust services. The Regional Health Service is committed to complete the implementation of the computerised network thus allowing GPs and paediatricians, professionals in hospital and territorial services, administration departments in Health Trusts to communicate with each other, in order to improve and simplify public access to services, and improve both patient management and continuity of care. Through this network, started in 2003, general practice physicians, paediatricians, other hospital and territorial specialists can exchange documents and information on patients (e.g. prescriptions, referral letters, discharge forms etc.), in compliance with privacy legislation, making – as far as possible – information and not people "moving". The network also simplifies administrative procedures for professionals.
The SOLE network confirms the role of general practice physicians and paediatricians as the first point of contact for health problems and treatment pathways, and therefore considers them an electronic communication link between employees and healthcare facilities.

Information on the network

Once fully operative, the network will connect general practice physicians and paediatricians, nursing domiciliary care services, continuity of care services, hospitals, Health District, hospital general outpatients departments, hospices, mental health centres, and Family advisory health centres, giving all of them the opportunity to exchange information on patients' clinical records, specialist diagnostics and visit prescriptions, medical reports, admissions, discharges, personalized care plans; the network also simplifies administrative procedures.
SOLE network eases communication and administrative procedures between general practitioners and paediatricians and the Departments of Primary Care (obligations stipulated by collective national agreements and regional implementation agreements), and provides on-line and class training for professionals' continuing education.
SOLE network guarantees to Local Health Trusts, to territorial services, to hospital services (of Local Health Trusts, Hospital Trusts, University Hospital Trust and Research Hospital) timely communication from general practice physicians and paediatricians on patients, prescriptions, admissions requests, home care requests, integrated management of patients affected by particular diseases (i.e. patients with diabetes, for whom a specific care program is active).

Services already available

The following services have already been activated:

- automatic communication from Local Health Trusts to general practice physicians and paediatricians and transmission of the updated register of patients, including choices/repeal notifications;
- use of a unified regional catalogue (SOLE catalogue) by general practice physicians, paediatricians and specialist doctors in Health Trusts for the prescription of outpatient specialist services, and in the future also for medical reporting;
- transfer of prescriptions for drugs and specialist visits and diagnostics from general practice physicians and paediatricians to Local Health Trusts. These prescriptions are available to unified hospital/provincial booking centres that, through an electronic code, can retrieve all the information contained on paper prescriptions, speeding up counter waiting times and simplifying telephone bookings. The return of patient's medical reports from Health Trusts to general practice physicians and paediatricians regarding laboratory, radiology and specialist assessments, in addition to notification about hospital admissions/discharges, related discharge letters, summary medical reports on Emergency Room treatment received (in compliance with privacy laws);
- unified code list of services offered free of charge (according to condition or income) that is available to general practice physicians and paediatricians from Health Trusts;
- Local Health Trust management of the administrative process for integrated home care, that is possible thanks to the participation of general practice physicians, paediatricians and Local Health Trusts in the patient's treatment since its beginning;
- testing in some Local Health Trusts (Reggio Emilia, Ferrara, Ravenna and Rimini) of real time exchange of information on patients with diabetes included in the diabetes integrated care program, among general practice physicians, paediatricians and specialists;
- availability on line of the "Regional Clinical Event Index" for general practice physicians and paediatricians, Health Trusts and Research Hospitals, for the collection of all patient medical documents and information also to create patient's electronic files, in compliance with privacy legislation;
- communication from general practice physicians and paediatricians to Local Health Trusts on additional services supplied to patients (e.g. drips, dressings, vaccinations);
- helpdesk from 8.30 a.m. to 6 p.m. on weekdays.

Network development, testing of Patient summary and electronic medical file

The integration of accredited private structures in SOLE network has been underway since 2011.
In addition to the direct connection of each general practice physician and paediatrician with the Health Trust services, the network will connect medical practices to each other, enabling access to patient information for all physicians in the same Primary Care Unit when necessary.
Testing of Patient summary will also continue in 2011, in at least one Health Trust for each of the 3 Vast Areas (Romagna, Central Emilia, North Emilia). These summaries of a patient's

state of health are prepared by general practice physicians and paediatricians, and can be consulted in emergencies or when required.
This testing is part of the national and regional project for the electronic medical files.
The national guidelines of 10th February 2011 define the electronic medical file as "the collection of digital medical and social-health data and documents generated by past and present clinical events relating to each patient". These will include medical reports, Emergency Room reports, discharge letters and Patient summaries.
In Emilia-Romagna the creation of personal electronic files is possible through SOLE network. With patient's formal consent, documents already available in the network are automatically inserted in the file which is permanently available on the internet (**http://www.fascicolo-sanitario.it**) in a protected, confidential format i.e. it can only be consulted with the use of personal credentials *(information on obtaining personal credentials is on the site itself)*. All citizens can insert medical documents, personal data and information into their own file; these documents can be accessed only by the patients themselves or can be shared with general practice physicians and other specialists. The aim is to allow all patients in Emilia-Romagna to consult and gather their clinical documentation online.

Each citizen can decide to create an electronic medical file at any time. This procedure is optional. The decision not to create a file has no consequences on a patient's rights to receive all healthcare and social-health services provided by the Regional Health Service in Emilia-Romagna.

When fully operational, electronic medical files will represent an information/management tool for healthcare workers, supporting the treatment process, on the basis of patient's consent and in full compliance with privacy legislation. In June 2011 the testing stage of the electronic medical file project began in the Local Health Trusts of Bologna, Imola, Cesena and Rimini.

Costs

Total costs incurred (to implement SOLE network, to deliver forms for professionals' digital signatures, to test Patient summaries and electronic medical files) as of 31st December 2010 amounted to approximately 47.868 million Euros, whereas management running costs are forecasted to be approximately 8.5 million Euros/year.

For further information:
SOLE network: **http://www.progetto-sole.it**
Electronic medical files: **http://www.fascicolo-sanitario.it**

General practice physicians and paediatricians connected to SOLE network as of July 2011

Local Health Trust	General practice physicians and paediatricians			General practice physicians and paediatricians operational as of 31st July 2011			% operational/contracting physicians		
	General practice physicians	Paedia-tricians	Total	General practice physicians	Paedia-tricians	Total	General practice physicians	Paedia-tricians	Total
Local Health Trust of Piacenza	213	33	246	192	33	225	90%	100%	91%
Local Health Trust of Parma	300	58	358	289	54	343	96%	93%	96%
Local Health Trust of Reggio Emilia	335	82	417	330	81	411	99%	99%	99%
Local Health Trust of Modena	519	100	619	509	97	606	98%	97%	98%
Local Health Trust of Bologna	616	118	734	610	118	728	99%	100%	99%
Local Health Trust of Imola	99	20	119	99	20	119	100%	100%	100%
Local Health Trust of Ferrara	283	39	322	278	37	315	98%	95%	98%
Local Health Trust of Ravenna	284	49	333	284	49	333	100%	100%	100%
Local Health Trust of Forlì	140	26	166	138	26	164	99%	100%	99%
Local Health Trust of Cesena	149	32	181	148	31	179	99%	97%	99%
Local Health Trust of Rimini	238	45	283	238	45	284	100%	100%	100%
Total	3,176	602	3,778	3,115	591	3,707	98%	98%	98%

Authorisation and accreditation of healthcare, social-health and social services

Authorisation and accreditation of healthcare services

The objective of authorisation and accreditation institutes, stipulated by national and regional legislation, is to provide citizens with quality healthcare services and facilities. In Emilia-Romagna the authorisation and accreditation process was defined by regional law 34/1998 and subsequent amendments. Regulations have been implemented with Regional Government resolutions since 2004.

Authorisation is meant to guarantee the respect of structural and safety requirements for patients and workers in any public or private health facility.

Accreditation guarantees the respect of quality requirements concerning health structures and professionals working for the Regional Health Service.

In particular, the regional resolution:

- defines authorisation and accreditation requirements for health facilities and workers; these requirements are the results of a lengthy confrontation and sharing among professionals and experts working in public and private facilities;
- defines authorisation and accreditation procedures, establishing modes, times and subjects to which procedures apply (facilities, programs, professionals);
- underlines the need of authorisation also for dental surgeries or other professional offices used for diagnostic and/or therapeutic procedures that are particularly complex or potentially dangerous for patients' safety.

The verification process to check that necessary requirements have been satisfied has been operational since 2004.

Many hospitals, residences (for psychiatric patients and substance abusers), hospices and clinics; public hospital facilities, Mental Health and Pathologic Addictions Departments, and hospices in Local Health Trusts have already been verified. Procedures concerning Public Health and Primary Care Departments are underway.

Authorisation and accreditation of social-health and social services

Authorisation for the operation of social-health and social services was regulated by Government resolution 564/2000. Authorisation, which is a compulsory pre-requisite for accreditation, is issued by the Municipality where the service is based, after consultation of a special commission.

The criteria and guidelines for accreditation were defined with Government resolution 772/2007 (regional laws 2/2003 and 20/2005).

The accreditation of social-health and social services, as with health services, aims to ensure high standards of quality of the services provided and of the facilities providing these services, based on various assumptions:

- the definition of the type and size of service to be accredited is assigned to District programming, under the responsibility of the District Committee;
- the accreditation system involves public and private services;
- accreditation completely replaces the contracting system for selecting services included in the public provision of treatment and care;
- after accreditation is granted, relationships between Municipalities, Local Health Trusts and the managing body will be regulated by a service contract, which defines reciprocal obligations and the financial implications of accreditation;
- single management responsibility of the accredited service is required;
- a high level of integration between social-health and healthcare services is necesary;
- qualification courses for employees are planned, and the different forms of dequalified and temporary employment will be gradually overcome.

Accreditation is issued – for the Health District area – by the competent government body, chosen jointly by all of the Municipalities. It could be a Municipality, a Union of Municipalities or a Mountain Community.

The list of social-health and social services involved in accreditation is published in resolution 772/2007.

Article 23 of regional law 4/2008 provides for the introduction of accreditation through a gradual process. In implementing this law the Regional Government, with resolution 514/2009, has defined the general and specific requirements for the accreditation of social-health and social services for the elderly and disabled: nursing home care, day care centres for disabled adults and elderly, residential homes for non self-sufficient elderly, residential socio-rehabilitative centres for disabled adults.

With the definition of the tariff regulations for these types of services, the accreditation system has been in force since 2009.

By 2009 temporary accreditation could be granted for services already systematically included in the institutional provision network.

Temporary accreditation was granted to 915 services.

Relationships between Municipalities, Local Health Trusts and managing bodies of these services have been regulated by service contracts that will expire on 31st December 2013. If by this date service requirements have been complied with and a single management system has been activated, full accreditation will be granted for 5 years, and will then be renewable for another 5 years.

After 1st January 2011 only temporary accreditation can be granted, which will involve newly-established services. The procedure gives priority to public services, while a selection from several proposals from private services is necessary.

By the end of May 2011 temporary accreditation had been granted to 9 social-health services.

Provisional accreditation involves a trial period lasting a year, after which full accreditation may be granted. A gradual implementation phase regarding legislative requirements is also planned initially for this type of accreditation, which will be completed by 31st December 2012.

For further information:
http://ww.saluter.it/ssr/autorizzazione-e-accreditamento

Directives for the organisation and operation of Vast Areas

There are three Vast Areas in Emilia-Romagna:
- North Emilia (Health Trusts of Piacenza, Parma, Reggio Emilia, Modena),
- Central Emilia (Health Trusts of Bologna, Imola, Ferrara, Rizzoli Research Hospital),
- Romagna (Local Health Trusts of Ravenna, Forlì, Cesena, Rimini).

In June 2011 the Regional Government (resolution 927 approved the directives regulating the relationships between Health Trusts belonging to the same Vast Area. The aim is to optimise the operation of Vast Areas, and to guarantee stability and uniformity of relationships between Health Trusts in these areas.

Shared with representatives from Trade Unions and the regional Control Room for healthcare and social policies (the seat devoted to promoting interaction between the Regional Government and local administrators), the directives specify that Vast Areas do not constitute an additional government level with legal liability, nor can they establish superstructures implying additional costs for the system.

They also specify that the system of relationships endorsed by regional law 29/2004 (the law on the organisation and operation of the Regional Health Service) and by the Social and Healthcare Plan in force (2008-2010) remains unaltered – policy, advisory and steering functions, inspection and control duties remain under Territorial Social and Healthcare Conferences, to which Health Trusts must submit their projects in Vast Areas, after discussing and consulting with Trade Unions.
Levels of negotiation with Trade Unions also remain unaltered.

Framework agreements

Health Trusts in Vast Areas sign a framework agreement to regulate the relationship and methods of organisation and operation in the Vast Area.

The framework agreement must first be submitted for assessment by the Territorial Social and Healthcare Conferences involved, and for consultation with Trade Unions; it must then be sent to the Region (General Health and Social Policy Direction) for verification of compliance with regional directives. The agreement is adopted after verification.

The following points in particular are defined in the framework agreement:
- co-operation objectives within the Vast Area;
- organisational methods fto carry out strategic functions and undertake joint decisions;
- organisational tools, criteria and methods aimed at guaranteeing efficiency and standards in carrying out integrated administrative and health activities and procedures at a Vast Area level;
- criteria for dividing the general expenditure of Vast Areas, which provide for distribution between Health Trusts in the same Vast Area considering the resident population of Local Health Trusts, the size of Health Trusts, and the presence of Hospital Trusts, University Hospital Trusts, and Research Hospitals.

Organisational and operational policies

Health Trusts belonging to a Vast Area must enforce organisational methods that ensure stable forms of consultation and coordinated decisions.

This organisation implies:
- the Committee of General Managers of Health Trusts in Vast Areas draws up of proposals and projects of joint interest, defining organisational readjustment hypotheses, establishing the financial resources required for implementing projects in Vast Areas. It is chaired by a coordinator;
- the operation manager is appointed by the Managers' Committee from internal resources; this person collaborates in Committee's activities and supports and monitors projects in Vast Area;
- sector committees are established to adopt standard joint management and strategy policies, in performing their activities;
- implementation agreements are adopted with a deliberation of Health Trusts, they outline the decisions made by the Committee, and indicate the criteria for financial support for projects and joint services which have been set up.

Telephone and online services: information, bookings and payments

The toll free number 800 033 033

In the first eight years of activity (2003-2010) this number received 884,299 calls. 800 033 033 is the unique Regional Health Service toll free number both from a mobile telephone or wireline phone all over the country, and provides necessary information on where to go and how to use the social-health and health services supplied by the public health service in Emilia-Romagna.

The service is available 50 hours a week, from 8.30 a.m. till 5.30 p.m. weekdays, and from 8.30 a.m. till 1.30 p.m. weekends and bank holidays.

Free phone calls are collected in a call centre, managed by duly trained operators and connected through computer and phone networks to the Offices for Relations with the Public of all Health Trusts and Research Hospitals, that can provide more detailed information if necessary.

The information system of the toll free number relies on a single database, constantly updated by the Regional Council Department for Health Policy (which coordinates and funds the system), Health Trusts and Research Hospitals.

The number of calls has increased every year, with peaks during periods with health scares, such as Avian influenza in 2006, Chikungunya virus in 2007, vaccination campaign against the A H1Ni influenza virus in 2009. In 2010 123,183 calls were made, with more than 10,000 calls a month and a daily average of 419 calls. Benchmark values for service quality have been maintained, which guarantee a personal, customised response from an operator within an average waiting time of less than 20 seconds.

Reasons for calls: questions regarding where and how to book examinations, tests, treatment and operations remain in first place (47.3% of cases); questions regarding locations, facilities and operators in the Health Service (12.8); queries on prevention and information campaigns (9.7%) and public health services (6.5).

Service guide: online information

Information available from the toll free number is available to internet users in a suitable format to facilitate direct consultation. The Regional Health Service's portal (**http://www.saluter.it**) and all the Health Trusts and Research Hospitals' portals publish the "Online Guide to Services", which provides information on all social health and healthcare services, including over 2,000 specialist services (visits and tests), with all locations and methods of delivery in the whole Region.

The guide counted 74,195 accesses in 2010, with a daily average of 203 accesses.

Booking visits and tests using the 800 033 033 toll free number

In addition to telephone bookings via unified booking centres (a system operating for years in the whole Regional Health Service), also a service which enables the telephone booking of specialist visits and tests using the 800 033 033 toll free number is already fully working. Call centre operators can transfer to unified booking centres for calls and bookings from citizens who have been referred for specialist visits and tests and require information on these services. The service only concerns visits and tests that can be booked by telephone, and is active for all Health Trusts. In 2010 4,868 booking calls have been transferred from the toll free number; call volumes remained quite stable with a slight increase in 2010 with respect to the previous year (in 2009 there were 4,750 transfers), and account for 3.9% of total activity of the 800 033 033 number.

Online bookings

The Local Health Trusts of Forlì, Imola and Piacenza started an online booking service in 2010, for specialist visits and tests prescribed on computerised SOLE prescriptions, with barcodes.

In the initial phase the online booking service is available for a limited number of services, but its extension to all regional Health Trusts and for a greater number of visits and tests, is planned.

To book online it is necessary to register oneself at **http://www.cupweb.it** where, in addition to booking appointments, it is also possible to change or cancel appointments, and to pay online for prescription charges.

Online payment for services

After gradual implementation which involved the various Health Trusts, the possibility of paying online for specialist visits and tests booked through unified booking centres has been fully working since March 2011. An online payment can be made by going to **http://www.pagonlinesanita.it** with booking details, an e-mail address, national insurance number/tax code, and one of the accepted credit or prepaid cards available. The new service is based on a safe, tested payment system (Bankpass Web), and on the integration of all regional unified booking centre systems and payment counters in Health Trusts.

Once payment has been made a receipt/invoice will be sent to users at the e-mail address provided, which will also be valid for tax purposes.

For further information, also on other online services, visit: **http://www.saluter.it**

Editorial coordination Marta Fin
Managers and officials from the General Direction for Health and Social Policies, and the Regional Healthcare and Social Agency contributed to the creation of this document.
Contributions from: Nicola Quadrelli, Nicola Santolini; Federica Sarti (for the English version)

Graphic project and layout:
Tracce – Modena

Printing:
Tipolitografia F.D. – Bologna

Regione Emilia-Romagna
Assessorato Politiche per la Salute
Viale Aldo Moro, 21
40127 Bologna
Tel. 051 5277150

www.saluter.it
infosaluter@saluter.it

Regional Health Service toll free number of the Regional Health Service: 800 033 033

Italian edition (October 2011) – English edition (March 2012)

SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

Regione Emilia-Romagna