SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

Facts and figures of the Regional Health Service of Emilia-Romagna (2006)

Regione Emilia-Romagna

Executive summary

The National Health Service in Italy is organized along principles of universal access and comprehensive coverage, although it combines public financing with a mixture of public and private provision. The 21 Regional Governments enjoy considerable autonomy in organizing health care delivery, although most of the funding comes from national levels.
Responsibility for health care delivery rests on Local Health Trusts, public enterprises funded by the Regions through a capitated budget for a wide range of hospital and community services. Most public hospitals are directly managed by the Local Health Trusts, except those providing tertiary care, and/or with a teaching status (University Hospital Trusts).
Private hospitals are mostly for profit and account nationally for 14% of total hospitalizations, with a wide regional variation.

Emilia-Romagna region is committed to develop and improve a welfare system that is universalistic, fair and rooted in local communities and the region in order to further strengthen a concerned, close-knit society. This commitment will be reinforced with the coming three-year first Regional Social and Healthcare Plan (previously it was only for healthcare). This Regional Plan was elaborated by the Regional Government in agreement with local administrators and underwent a lengthy and fruitful process of further study and sharing with all the components of regional society (institutions, citizens' representations, unions, service sector, non governmental organizations).
The Plan aims to complete the process begun with the Regional laws no. 2/2003 (policy law for social services) and no. 29/2004 (re-organization of the Regional Health Service), to create an integrated system of social and health care services that can provide unitary and global responses to the complex needs of a society undergoing demographic, social and economic changes, and to guarantee fair access. It is a weighty objective that is feasible only with an integration logic at all levels: between services (healthcare and social services) and between institutions and individuals who in various ways are called to play a role in affirming citizens' rights (Region, Provinces, Municipalities, Health Trusts, non profit and profit private organizations, associations, volunteers, social forces).

The Regional Health Service (RHS) is a fundamental part of this new welfare system. Its development, programs and organizational models will be shaped by this new system. The programs for using the Regional Fund for non self-sufficient people (311 million Euros for 2007) and for transforming Public Institutions for Assistance and Charity (IPAB) into Public Trusts for Personal Services (Asp) are already a part of this process.

The Emilia-Romagna Regional Health Service is founded on the distinctive principles of the National Health Service – universality and fair access, public responsibility for health protection, public financing through general taxation.
It is a system based on clinical governance, professionals' involvement in the choices of the Health Trusts, citizens' participation in care pathways, evaluation of service quality and elaboration of health promotion programs.

Programs for innovation and research, for continuing medical education (Ecm), for prevention, surveillance and management of care-correlated risks; the regional plan for waiting lists containment for outpatient specialist care and for planned hospital admissions; the Regional Plan for Prevention; the project for a network among physicians and among health services (Sole Project, online healthcare) represent some of the most relevant commitments.
Among the main instruments adopted, there are contracts and agreement protocols with Universities (programs for research, innovation and training), with general practice physicians and paediatricians (to improve primary care), with other bodies providing services (for addictions treatment), with the Ministry of Justice (to provide healthcare services in prisons), and among Health Trusts of the so called Vast areas (to rationalize purchasing and to integrate services).

The key point of the Regional Health Service was to create integrated service networks – between hospital and territory and between healthcare and social services – to better ensure responsibility and continuity of care.
The Health District is the seat of services planning and distribution in response to population's needs; it is the context where family practitioners are integrated with the Primary Care Units, territorial healthcare services with hospital services, healthcare services with social services; it is finally the seat of collaboration with the Municipalities. The area of the District is also the context within which the local plan to use the Regional Fund for non self-sufficient people and the programs to create Public Trusts for Personal Services (ASP) are elaborated and where individuals, volunteers, associations providing social and health services can collaborate.
Hospital care is based on a regional planning for the more specialist services (through a hub & spoke model) and on a local planning for the disciplines useful for the self-sufficiency of territories. After cardiology and heart surgery, genetics, severe trauma and transfusion system (a few of the hub & spoke networks), the commitment is now concentrated on oncology and highly complex diagnostics.

The structure of the Regional Health Service (*see p. 52*) is composed of Health Trusts and in particular of 11 Local Health Trusts, 1 Hospital Trust, 4 University Hospital Trusts and 1 Research Hospital. The Local Health Trusts are divided in Health Districts (39 in the region). Three Vast areas were defined to optimize quality and efficiency of technical-logistic and care services provided to populations beyond the Local Health Trust's territorial competence: north Emilia, central Emilia and Romagna.

On December 31, 2006, the total regional population was 4,223,585, showing an increase of 36,041 persons with respect to 2005. This population is made up of 51.3% females and 48.7% males. Those aged over 65 years represent 22.8% (the national level is 19.7%). The number of people arriving from other countries of the world is growing (7.5% of the population; the national level is 4.6%). The birth rate is also rising, with 39,274 births registered in 2006, of which foreign mothers accounted for 21%.
On the same date, the RHS had 59,725 employees (including 8,500 physicians, 549 veterinarians, 1,122 other professionals and 25,865 nurses), 3,270 contracting general practice physicians and 576 contracting paediatricians.

Public and accredited private hospital beds numbered 19,887; 3.84 acute care beds and 0.91 long-term care beds per 1,000 population. Hospital admissions in 2006 totalled 846,653. The admission rate in Emilia-Romagna hospitals for patients from other regions is constantly growing. It was 14.56% through December 31, 2006, as compared to 13.83% in 2005. Beds in residential and semi-residential facilities for elderly, disabled, people with addictions or mental health problems increased from 27,379 in 2005 to 28,312 in 2006.
The network of family health advisory centres is made up of 214 centres, with 29 facilities for young people and 16 for immigrant women and their children. The number of patients increased 12% in the decade 1995-2005 and remained stable between 2005 and 2006.
The care network for senile dementia has 47 diagnosis and care specialized centres. The hospice network has grown from 9 hospices with 120 beds and 1,999 admissions in 2004 to 14 hospices, 170 beds and 2,859 admissions in 2006.

In the last few years, 2,413 million Euros (plus more than 750 million Euros from Hospital Trusts' own funds) were invested to build new hospitals and territorial facilities and to upgrade the existing ones.

In 2006, outpatient specialist attendances numbered 69,812,752, as compared to 64,947,896 in 2005.

Beneficiaries and expenditures both increased for allowance care issued to people receiving long-term care in their homes: the number of persons assisted increased from 18,040 in 2005 to 18,395 in 2006 (9,600 in 2000); expenditures increased from 28,549 to 29,413 million Euros. The number of people receiving home health visits also increased from 84,001 in 2005 to 87,462 in 2006 (73,497 in 2004).

In 2006, blood collection increased slightly (+0.6%) with respect to 2005. Collection of whole blood units has constantly grown over the past 6 years: from 226,875 in 2000 to 248,764 in 2006.
In 2006, Emilia-Romagna ranked above national and European averages in number of effective organ donors: 29.6 per million population as compared to 21.6 at national level. There were 311 transplants.
In 2006, projects to further qualify mental health services were started. In recent years, the number of persons receiving mental health care has grown: minors increased from 35,293 in 2000 to 36,818 in 2005; adults increased from 49,647 to 62,618 in 2006.

Emilia-Romagna has three screening programs for cancer prevention and early diagnosis: screening for breast and cervical cancers registered a participation of 70.5% and 52.4% respectively of women contacted in 2006; 45.6% of the contacted population participated in screening for colorectal cancer (which began in 2005).
Attention to occupational safety also continues to obtain results: in 1995 almost 10/100 workers reported an injury, while in 2006 the ratio decreased to 7.1/100.

For some years, Emilia-Romagna has worked to balance hospital and territorial health expenditures (respectively 41.29% and 54.28% of the total in 2006), an effort that ran parallel with the qualification of both territorial and hospital services.
Pharmaceutical expenditure for prescriptions issued within the Regional Health Service increased by only 1.88% in 2006 as compared to the national rate of 4%. It represents about 14% of the total expenditure for the RHS.
In 2006, total expenditure for the Regional Health Service was 7.295 billion Euros (7 billions in 2005). In the same year, a sizeable underestimation of the National Health Fund was registered: a total of 90 billion Euros – zero increase with respect to 2005 – with an assignment of 6.368 billion Euros to the Emilia-Romagna Health Fund (plus 308 million Euros from out-of-region mobility and revenues from Health Trusts). This underestimation produced an inevitable deficit of 350 million Euros, that was compensated by regional and national resources in the 2007 budget. In 2007, the National Health Fund allowance for Emilia-Romagna amounted to 6.857 billion Euros, 7.75% more than 2006.

Health Trusts, employees, general practice physicians and paediatricians

The Regional Health Service is composed of 17 Health Trusts: 11 Local Health Trusts, 4 University Hospital Trusts, 1 Hospital Trust, 1 Research Hospital. The Local Health Trusts are divided in Health Districts (39 in the region). There are 59,725 employees, and 3,270 general practice physicians and 576 paediatricians.

HEALTH TRUSTS

Local Health Trusts	Population	% of people aged 65+	No. of Health Districts	No. of hospital beds in Local Health Trusts *	Employees	General practice physicians	Paediatricians contracting with RHS
PIACENZA	278,366	24.5%	4	837	3,532	223	34
PARMA	420,056	23.2%	4	392	2,411	310	54
REGGIO EMILIA	501,529	20.2%	6	736	3,879	344	76
MODENA	670,099	21.0%	7	1,613	6,377	536	96
BOLOGNA	828,779	24.1%	6	1,889	8,417	644	116
IMOLA	125,903	22.9%	1	581	1,730	96	20
FERRARA	353,304	25.6%	3	761	3,188	294	38
RAVENNA	373,446	24.3%	3	1,209	4,504	292	49
FORLÌ	180,623	23.9%	1	613	2,558	155	22
CESENA	197,370	21.0%	2	670	2,643	150	28
RIMINI	294,110	20.5%	2	919	3,303	226	43
Total Local Health Trusts	**4,223,585**	**22.8%**	**39**	**10,220**	**42,542**	**3,270**	**576**

Hospital Trusts, University Hospital Trusts, Research Hospitals	No. of hospital beds	Employees
University Hospital Trust of Parma	1,359	3,657
Hospital Trust of Reggio Emilia	894	2,572
University Hospital Trust of Modena	774	2,355
University Hospital Trust of Bologna	1,714	4,933
University Hospital Trust of Ferrara	900	2,516
Istituti Ortopedici Rizzoli Research Hospital of Bologna	312	1,150
Total Hospital Trusts, University Hospital Trusts, Research Hospital	**5,953**	**17,183**
Total hospital beds and employees in Emilia-Romagna Health Trusts	**16,173**	**59,725**

* Accredited private hospital beds are not included in the table.

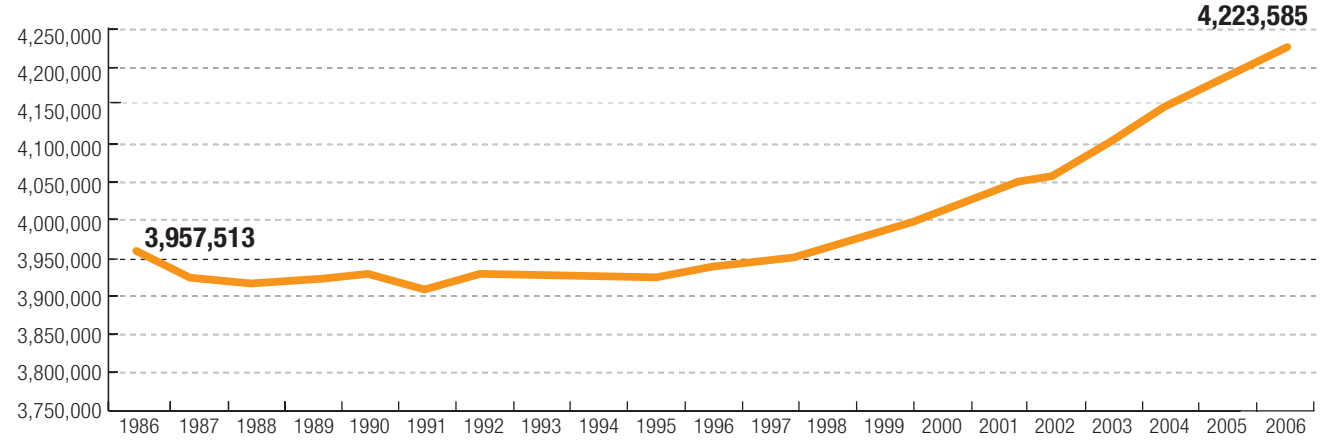
PERSONNEL EMPLOYED BY THE REGIONAL HEALTH SERVICE AS OF DECEMBER 31, 2006

Physicians	8,550
Veterinarians	549
Other health professionals	1,122
Technical and administrative professionals	578
Nursing personnel	25,865
Laboratory and diagnostic personnel	3,264
Prevention personnel	914
Rehabilitation personnel	2,250
Social workers	415
Administrative personnel	5,806
Technical personnel	5,130
Assisting personnel	642
Social care personnel	3,860
Specialized auxiliary personnel	762
Religious personnel	18
Total	**59,725**

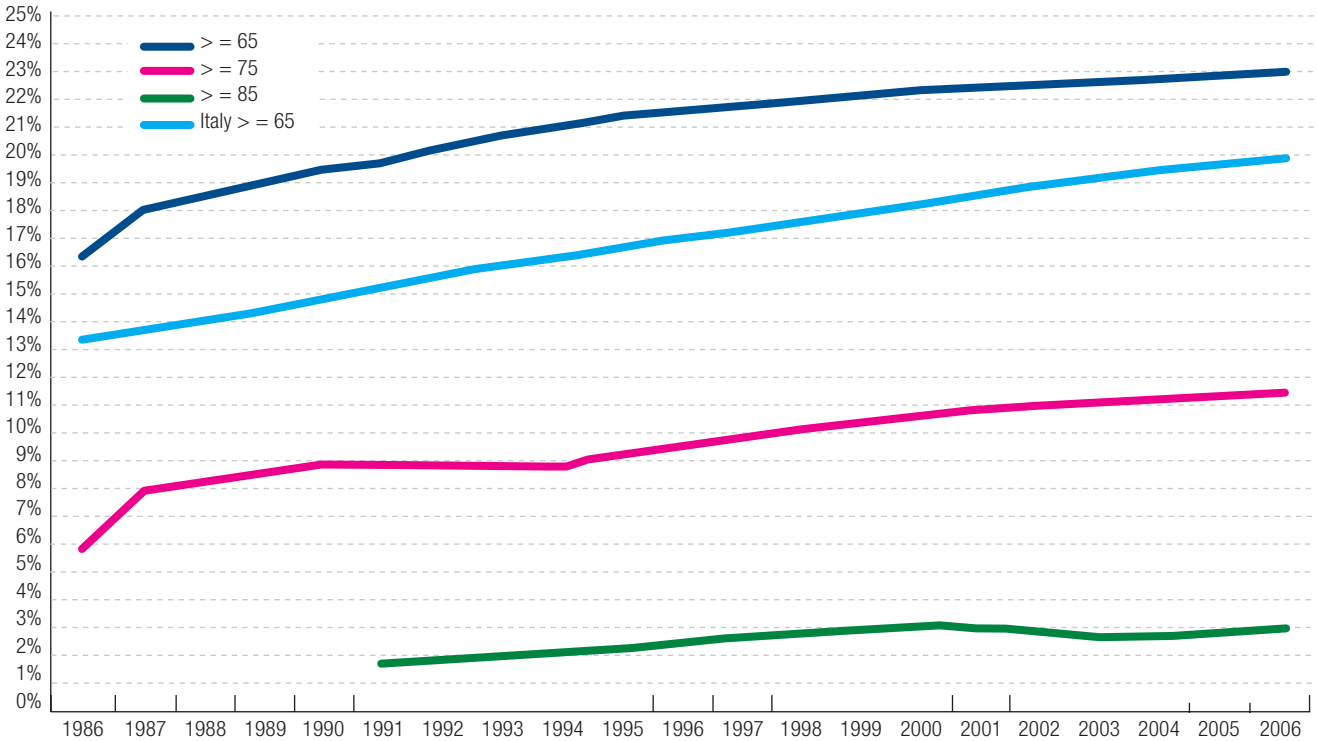
Population

The population of Italy is about 59 million people and has grown from 2002 to 2006 about 3.16%.
The population of Emilia-Romagna has grown from 4,187,544 on December 31, 2005 to 4,223,585 on December 31, 2006 (+36,041): 51.3% female and 48.7% male. In 1986 the population was 3,957,513. In twenty years (1986-2006) it increased 6.3% (total 266,072); in the last ten years (1996-2006) the increase was 6.7% (284.255 total); in the last 5 years (2001-2006) the increase was 4.4% (186,490 total). Emilia-Romagna is one of the "oldest" regions in Italy with 961,323 persons older than 65 years, 22.8% as compared with 19.7% nationally. The region also has a significant presence of people aged more than 75 years (481,575 – 11% of the total population) and more than 85 years (127,093 – 3% of the total population). At the same time, however, the birth rate is rising: 39,274 births, of which 21% from foreign mothers (38,518 total births in 2005 and 25,390 in 1986, the base year in this series).
Both the increase in birth rate and the total population growth are due partly to an increase in resident foreigners: 318,076 on December 31, 2006, 7.5% of the total population as compared to 4.6% nationally (289,013 on December 31, 2005 and 81,265 in 1997, the first year of systematic survey after the first regularization implemented by the so called "Martelli law" of 1990).
In immigrant population, males still prevail (51%), even if the female component considerably increased between 1997 and 2006, from 42% to 49% of the population. The province with the largest number of resident immigrants is Reggio Emilia (9.3% of the total population) while the province with the smallest number is Ferrara with 4.4%. The first country of origin is Morocco (53,628) followed by Albania (44,254) and Romania (21,804). For further details: **http://www.regione.emilia-romagna.it/statistica**

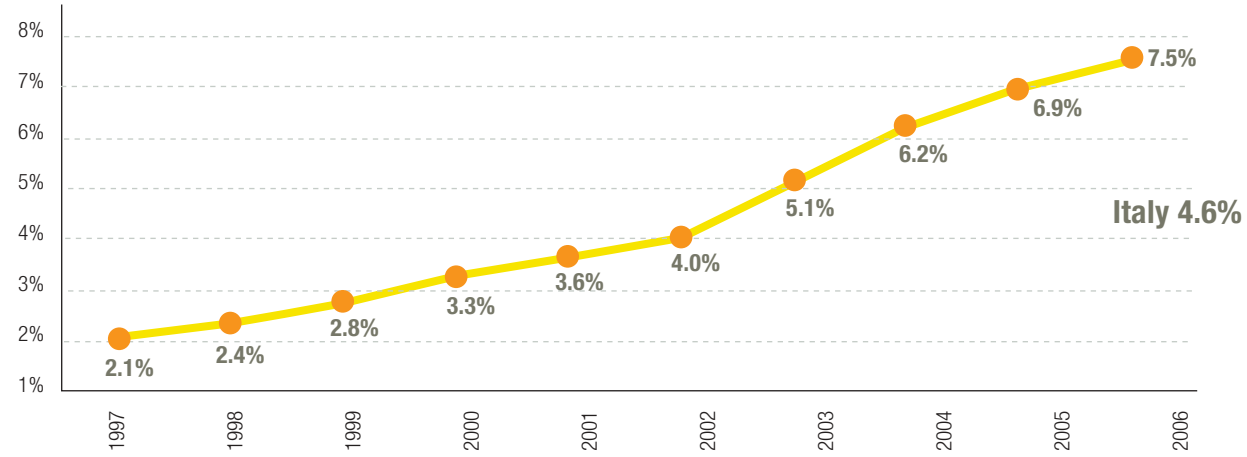
RESIDENT POPULATION IN EMILIA-ROMAGNA, 1986-2006



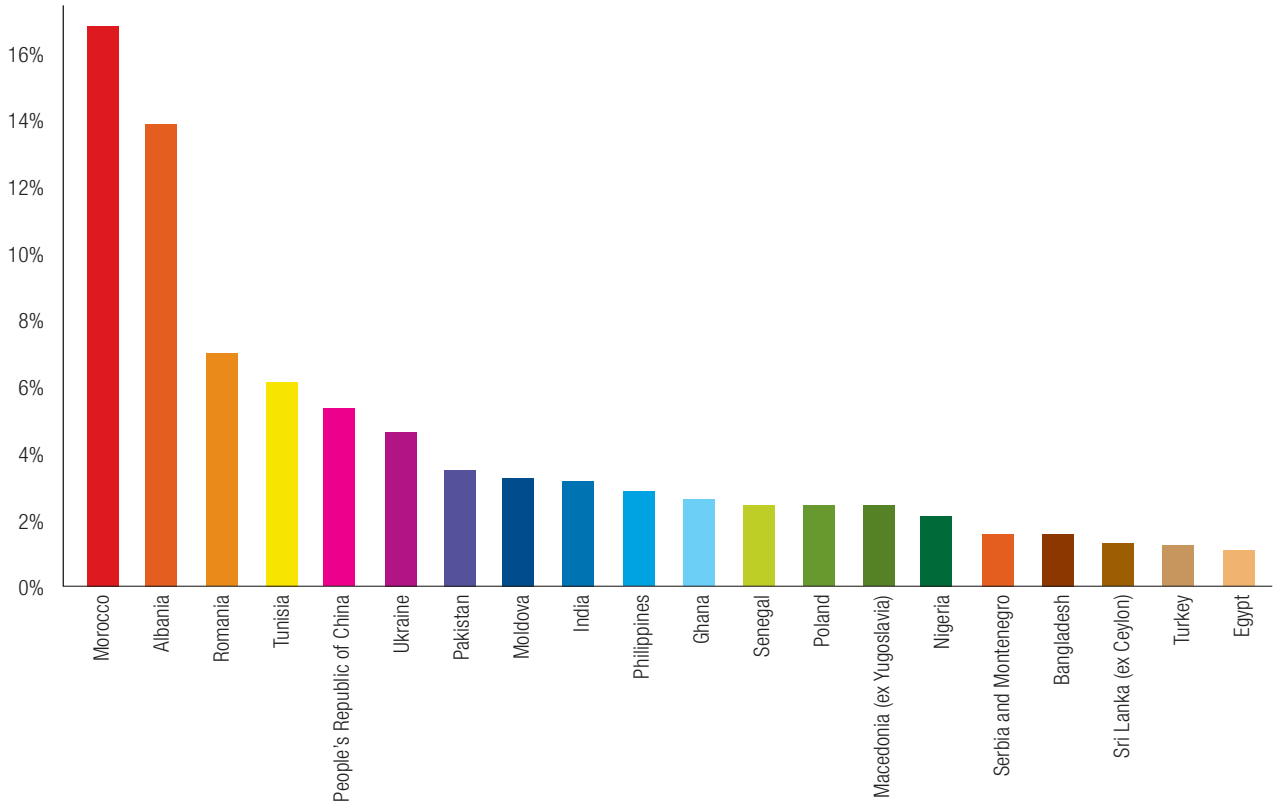
PERCENTAGE OF RESIDENT ELDERLY POPULATION IN EMILIA-ROMAGNA, 1985-2006



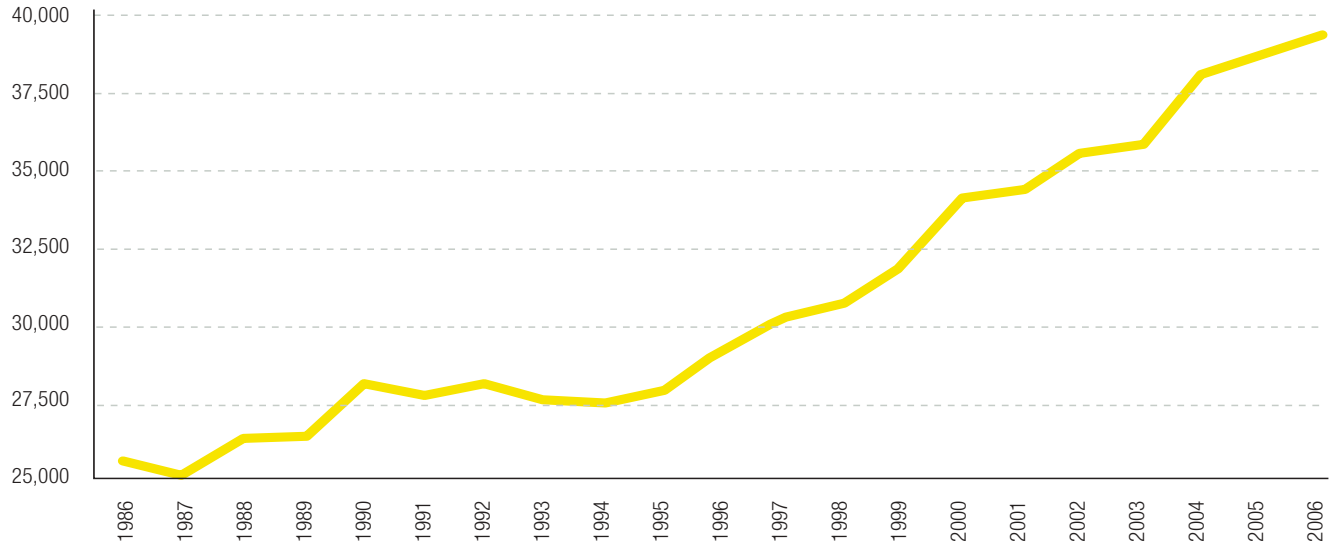
PERCENTAGE OF FOREIGN POPULATION WITH RESPECT TO RESIDENT POPULATION IN EMILIA-ROMAGNA, 1997-2006



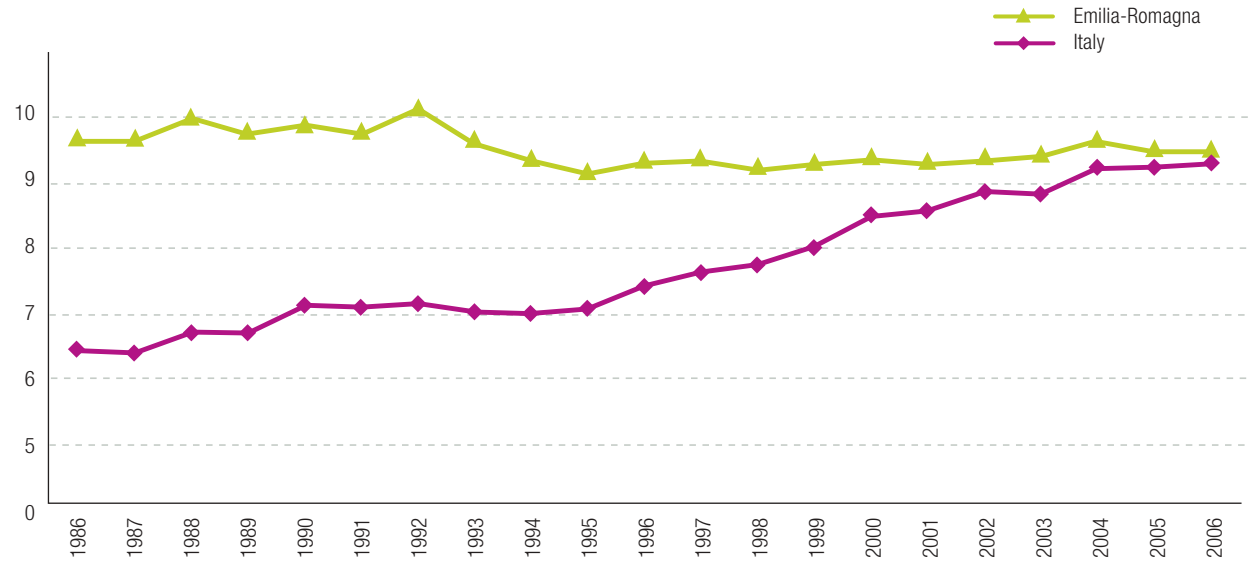
RESIDENT FOREIGN POPULATION IN EMILIA-ROMAGNA AT DECEMBER 31, 2006 BY COUNTRY OF ORIGIN



RESIDENTS BORN IN EMILIA-ROMAGNA, 1986-2006



BIRTH RATE, 1986-2006



Expenditure evolution: comparison with the other Italian regions

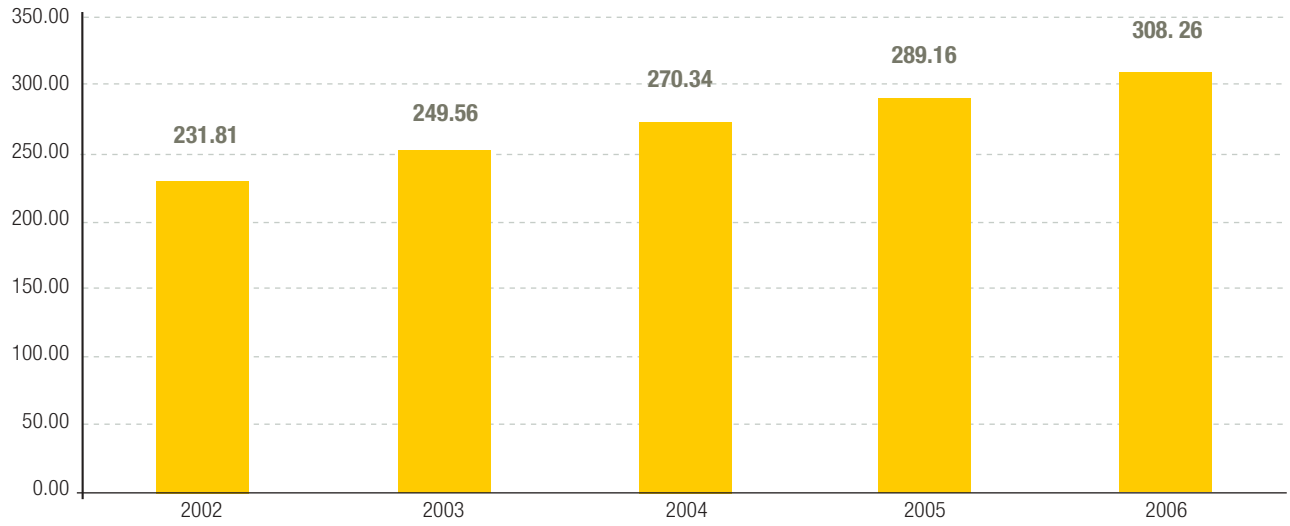
In 2006, total expenditure for the Regional Health Service was 7.295 billion Euros. The analysis of the five years between 2002 and 2006 shows growth indexes aligned with the national average, even though the population growth in Emilia-Romagna (4%) was greater than the national one (3%). To this appreciable result, the increasingly positive balance of inward healthcare mobility should also be added: 308.3 million Euros in 2006 as compared to 231.8 in 2002.

EXPENDITURE BY REGION, 2002/2004/2006 (absolute figures in thousand Euros)

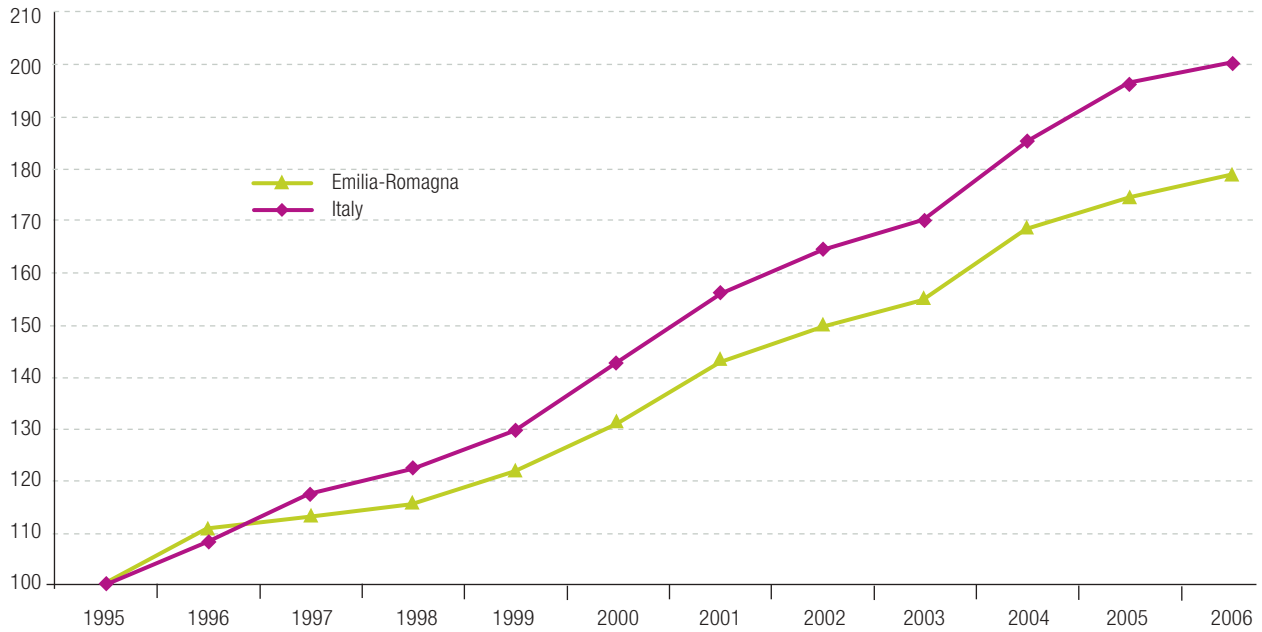
Regions and Autonomous Provinces	Total expenditure 2002	Total expenditure 2004	Total expenditure 2006	% difference 2004-2002	% difference 2006-2004	% difference 2006-2002
PIEMONTE	5,851,179	7,110,731	7,452,207	21.53	4.80	27.36
VALLE D'AOSTA	190,255	208,997	246,122	9.85	17.76	29.36
LOMBARDIA	12,710,670	13,396,702	15,353,112	5.40	14.60	20.79
P.A. BOLZANO	860,740	937,446	1,022,758	8.91	9.10	18.82
P.A. TRENTO	753,565	822,149	899,062	9.10	9.36	19.31
VENETO	6,277,243	6,966,003	7,858,703	10.97	12.82	25.19
FRIULI VENEZIA GIULIA	1,669,569	1,885,340	2,104,379	12.92	11.62	26.04
LIGURIA	2,403,832	2,862,378	2,960,414	19.08	3.42	23.15
EMILIA-ROMAGNA	**5,870,923**	**6,710,160**	**7,295,581**	**14.29**	**8.72**	**24.27**
TOSCANA	4,999,490	5,671,978	6,104,356	13.45	7.62	22.10
UMBRIA	1,190,716	1,342,779	1,465,758	12.77	9.16	23.10
MARCHE	2,037,773	2,276,704	2,441,240	11,73	7.23	19.80
LAZIO	7,485,195	9,697,558	10,299,280	29.56	6.20	37.60
ABRUZZO	1,822,755	1,953,022	2,213,498	7.15	13.34	21.44
MOLISE	451,734	519,568	581,761	15.02	11.97	28.78
CAMPANIA	7,561,066	8,765,836	9,120,349	15.93	4.04	20.62
PUGLIA	5,041,181	5,422,360	6,323,304	7.56	16.62	25.43
BASILICATA	730,007	826,589	899,922	13.23	8.87	23.28
CALABRIA	2,552,141	2,768,011	3,047,220	8.46	10.09	19.40
SICILIA	6,472,178	7,494,782	8,381,001	15.80	11.82	29.49
SARDEGNA	2,210,690	2,439,577	2,612,661	10.35	7.09	18.18
ITALY	**79,142,901**	**90,078,671**	**98,682,688**	**13.82**	**9.55**	**24.69**

Source for 2002: General report on the national economic situation, 2005.
Source for 2004 and 2006: General report on the national economic situation, 2006.
Data for 2006 is projected (data through 4th quarter); data for 2002 and 2004 refer to final expenditure of the Regions.

BALANCE OF INTERREGIONAL MOBILITY, 2002-2006 (in million Euros)



TOTAL PER CAPITA EXPENDITURE IN EMILIA-ROMAGNA AND ITALY, 1995-2006 (index numbers 1995 = 100)



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

Health policy strategies in Emilia-Romagna have deeply modified the structural, organizational and planning aspects of the entire system, striving to balance the offer between hospital and territorial services. Hospitals have been assigned an increasingly more specific role to provide complex care in facilities with a high concentration of technology and professional competence. At the same time, territorial and home care services have been developed, diversified and qualified.
For some years, expenditure for territorial care services exceeded that for hospital care, as confirmed by a comparison of 2005 and 2006 costs for these two levels of assistance. Costs for prevention dropped slightly in the two years because in 2006 the costs of diagnostic testing performed within the three regional screening programs (mammographic, cervical and colorectal) were kept in the area of specialist territorial care. At the same time, costs for vaccinations performed by general practice physicians and community paediatricians are covered by Health District (except for vaccines costs, which are charged to prevention).

Per capita expenditure increased from 1,678 Euros in 2005 to 1,725 Euros in 2006, with a growth slightly below 3%.

EXPENDITURE BY FUNCTIONS AND LEVELS OF HEALTH CARE, 2005 AND 2006

Levels of care	Cost in thousand Euros in 2005	% of total	Per capita cost in Euros in 2005	Cost in thousand Euros in 2006	% of total	Per capita cost in Euros in 2006
Public health (1)	**327,492**	**4.66%**	**78.21**	**322,961**	**4.43%**	**76.47**
Total Health District care, including:	**3,746,607**	**53.33%**	**894.70**	**3,954,312**	**54.28%**	**936.25**
Primary care (contracting general medicine physicians and paediatricians, continuity of care) (2)	402,959	5.74%	96.23	396,764	5.45%	93.94
Emergency services in the territory	102,288	1.46%	24.43	106,724	1.46%	25.27
Territorial pharmaceutical expenditure	977,797	13.92%	233.50	1,017,909	13.97%	241.01
Supplementary care and prosthesis	105,470	1.50%	25.19	110,560	1.52%	26.18
Specialist care (including emergency care not followed by admission)	1,147,889	16.34%	274.12	1,237,655	16.99%	293.03
Home health care	133,176	1.90%	31.80	151,483	2.08%	35.87
Healthcare for family centres and community paediatricians	77,333	1.10%	18.47	85,137	1.17%	20.16
Psychiatric care	307,992	4.38%	73.55	315,193	4.33%	74.63
Rehabilitation for disabled	93,748	1.33%	22.39	117,479	1.61%	27.81
Care for substance abusers	59,863	0.85%	14.30	62,311	0.86%	14.75
Care for elderly	300,413	4.28%	71.74	312,172	4.28%	73.91
Care for terminally ill	14,304	0.20%	3.42	16,975	0.23%	4.02
Care for persons with HIV	4,071	0.06%	0.97	4,163	0.06%	0.99
Hydrothermal treatment	19,304	0.27%	4.61	19,787	0.27%	4.68
Total hospital care	**2,951,669**	**42.01%**	**704.87**	**3,008,422**	**41.29%**	**712.29**
Totals	**7,025,768**	**100%**	**1,677.77**	**7,285,695**	**100%**	**1,725.00**

Source: Final balance LA form 2005 and 2006.
Per capita costs are calculated for the resident regional population:
Population as of December 31, 2005 4,187,557
Population as of December 31, 2006 4,223,585

Notes
(1) In 2006, expenditures for diagnostic tests for the three regional screening programs (mammographic, cervical and colorectal), estimated around 15 million Euros, are not included and were allocated to specialist care. The costs of vaccinations performed by general practitioners and community paediatricians also are not included; only the costs of the vaccines are considered.
(2) The 2005 cost includes back pay.

Health care and social services: projects for new facilities and modernizing existing facilities

Investments activated in the last seventeen years in Emilia-Romagna for new hospital facilities, health care and social care facilities and for the modernization of existing facilities amounted to 2,413 million Euros.
The investments took place in three phases. The first concerned 161 projects and a total financing of about 730 million Euros. The second phase included 123 projects for more than 830 million Euros: 68 interventions were completed and 53 are ongoing (two other projects were suspended because of a legal dispute with the contracting firm and because of the discovery of a wartime explosive device). The third phase refers to 486 projects for 854 million Euros. The 2004 Regional Planning Agreement allocated 84 million Euros for 11 interventions to complete projects started in the preceding three years, to upgrade health care facilities according to safety and accreditation standards, and to encourage reorganization processes in the Health Trusts.
Furthermore, when Parma became the seat of the European Food Safety Authority, the 2005 Regional Planning Agreement allocated 21 million Euros (7 of which from the local University Hospital Trust) to upgrade and modernize the Maggiore Hospital.
In addition, in the last 10 years the Health Trusts spent more than 750 million Euros of their own funds to modernize facilities.

PROGRAMS AND FINANCING, 1996-2006 (absolute figures in thousand Euros)

	State	Region	Health Trusts / bodies*	Total
First phase – completed	545,862	34,007	149,795	729,665
Second phase – nearly completed	467,223	24,412	338,164	829,801
Third phase – ongoing	361,344	196,473	296,368	854,187
Total	**1,374,430**	**254,894**	**784,329**	**2,413,654**

* Bodies can be Municipalities, former IPAB, non governmental organizations.

Programs

First phase: completed *
161 projects
Investments: approximately 730 million Euros

The projects included:
- renovation of the Departments of Public Health in Parma and Bologna;
- construction of outpatient clinics in Zola Predosa, Imola and Borgo Tossignano (Bologna);
- construction of Health District facilities in Ferrara, Predappio and Cesenatico (Forlì-Cesena);
- construction of psychiatric residential facilities in Scandiano and Guastalla (Reggio Emilia), Modena (2), Carpi (Modena), Bologna (3) and Ferrara, and nursing homes for elderly (56) and disabled (19);
- renovation or expansion of 24 hospitals including those in Reggio Emilia and Parma, construction of new hospital facilities in Sassuolo and Baggiovara (Modena), Cona (Ferrara) and Vecchiazzano (Forlì-Cesena).

Projects that have been completed and activated include:

Infectious disease units in the hospitals in Piacenza, Parma, Reggio Emilia, Modena, Ravenna, Forlì, Cesena, Rimini.

* Infectious disease units in the hospitals in Ferrara and Bologna are near completion.

Second phase: nearly completed
123 projects
Investments: 830 million Euros

68 projects have been completed, including:

- new hospitals in Fidenza (Parma), Baggiovara and Sassuolo (Modena), San Giovanni in Persiceto (Bologna), Lagosanto (Ferrara); expansion of Santa Maria Nuova Hospital in Reggio Emilia, completion of the rehabilitation hospital in Villanova d'Arda (Piacenza);
- Department of Public Health in Piacenza, social assistance centre in Langhirano (Parma), Health District in Mirandola (Modena), the new building for the Regional Environmental Health Agency (ARPA) in Ravenna, purchase and installation of linear accelerator in Piacenza;
- upgrading to safety and accreditation standards of hospital and territorial facilities;
- construction of 25 nursing homes for elderly and disabled people.

There are 53 ongoing projects, including:

- 6 new non-hospital facilities;
- 32 nursing homes for elderly and disabled people;
- completion of the hospital in Fiorenzuola (Piacenza), Maggiore Hospital in Parma, Polyclinic in Modena, Sant'Orsola Polyclinic, Maggiore Hospital and Bellaria Hospital in Bologna, new hospital in Porretta (Bologna), completion of new hospitals in Imola (Bologna) and Cona (Ferrara), modernization of Santa Maria delle Croci Hospital in Ravenna, Bufalini Hospital in Cesena and Infermi Hospital in Rimini.

Two projects were suspended because of a legal dispute with the contracting firm and because of the discovery of a wartime explosive device.

Third phase:
Financing plans for 486 projects and 854 million Euros

There are 188 projects for the healthcare area alone, including:

- 8 projects for the metropolitan area of Bologna: technological centre of Sant'Orsola Polyclinic in Bologna (already operating), cardiology and heart surgery centres of Sant'Orsola Polyclinic (in the planning phase), building renovation of Rizzoli Orthopaedic Institutes in Bologna and 4 other projects in Bellaria Hospital in Bologna, hospitals in Bazzano and Budrio and the Roncati complex in Bologna;
- 20 facilities for palliative care: 12 are completed and active, 3 under construction, 5 in the bidding phase;
- 69 projects for in-hospital private practice: 29 completed, 33 nearing completion, 5 in the bidding phase, 2 in the planning phase;
- 11 projects included in the 2004 Regional Planning Agreement: 1 completed and active, 10 under construction;
- 1 ongoing project to expand the hospital in Parma (2005 Regional Planning Agreement);
- 75 other projects included in regional programs: 18 completed, 10 ongoing, 1 in the bidding phase, 46 in the planning phase.

Main indicators of hospital care: hospital beds, admissions and waiting lists

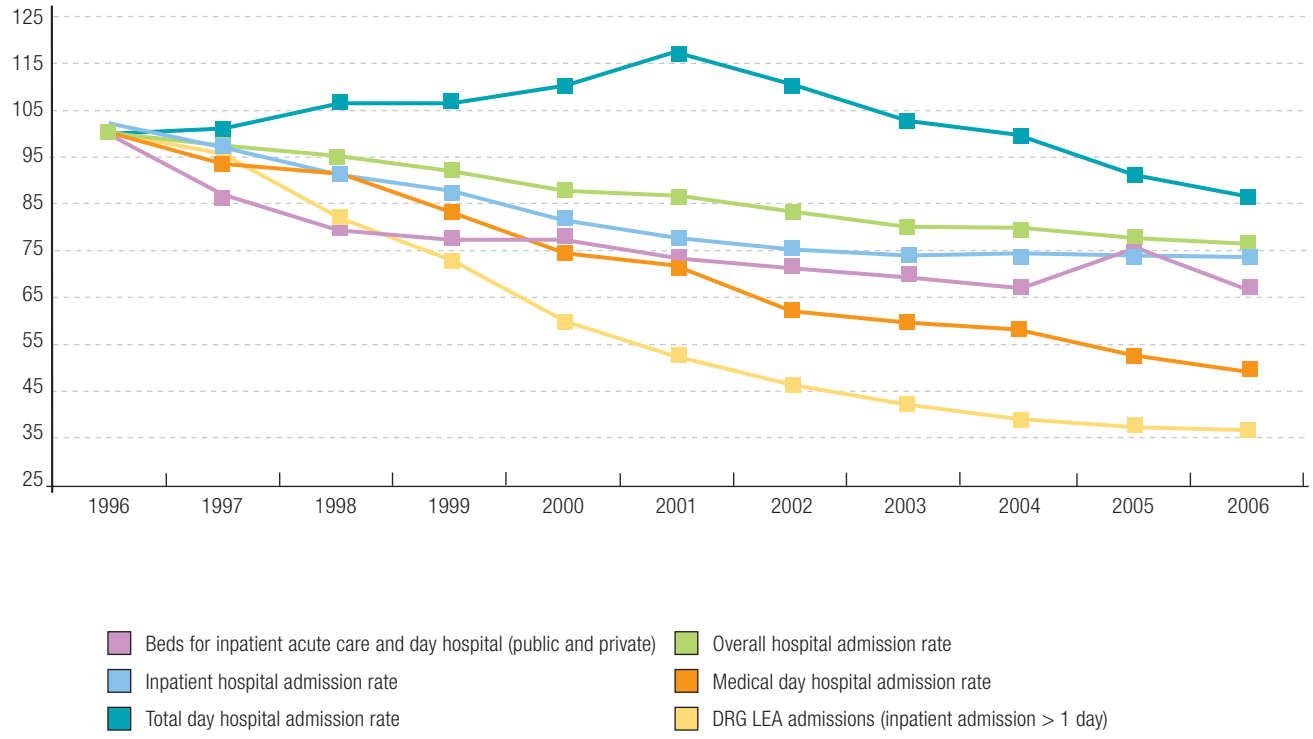
As of December 31, 2006, public and accredited private hospital beds in Emilia-Romagna amounted to a total of 19,887 including beds for acute care (14,225), day hospital (2,006), long-term care and rehabilitation (3,658). There are 3.84 acute care beds (inpatient admissions and day hospital) and 0.91 beds for long-term care and rehabilitation per 1,000 population. The inpatient admission rate per 1,000 population was 139.0; the day hospital admission rate was 45.9.

The good quality of hospital care is also demonstrated by the increasing percentage of patients coming from other regions: 14.56% (13.83% in 2005).

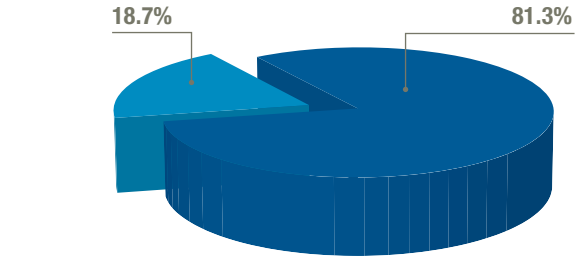
At the same date, there were 793,263 admissions for acute care beds (799,947 in 2005); the total number of admissions was 846,653 (851,123 in 2005), including also 22,598 admissions for rehabilitation and 30,792 for long-term care.

In 2006, almost 300,000 planned surgical operations covered by the Regional Health Service were performed in public and accredited private hospitals, with an average wait of 66 days. In line with national standards the Region established specific objectives for some types of surgery: treatment of all cases of surgery for 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 is generally satisfactory, particularly in the cardiologic, vascular and ophthalmological areas. Data related to oncology are still influenced by overall times for presurgical diagnostic and therapeutic paths, and the field of orthopaedic prosthesis by the constant increase in demand, with the result that specific objectives have not been fully met despite significant increases in offer (+9% between 2005 and 2006 = +1,240 operations).

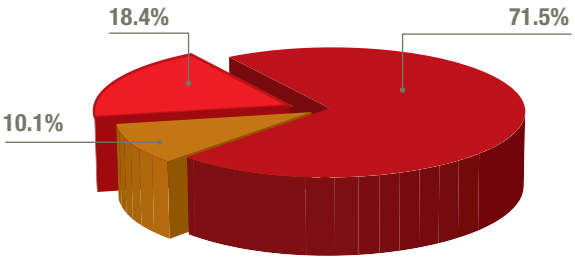
HOSPITAL ADMISSION RATES, 1996-2006 (index numbers 1996 = 100)



PUBLIC AND ACCREDITED PRIVATE BEDS = 19,887 in 2006

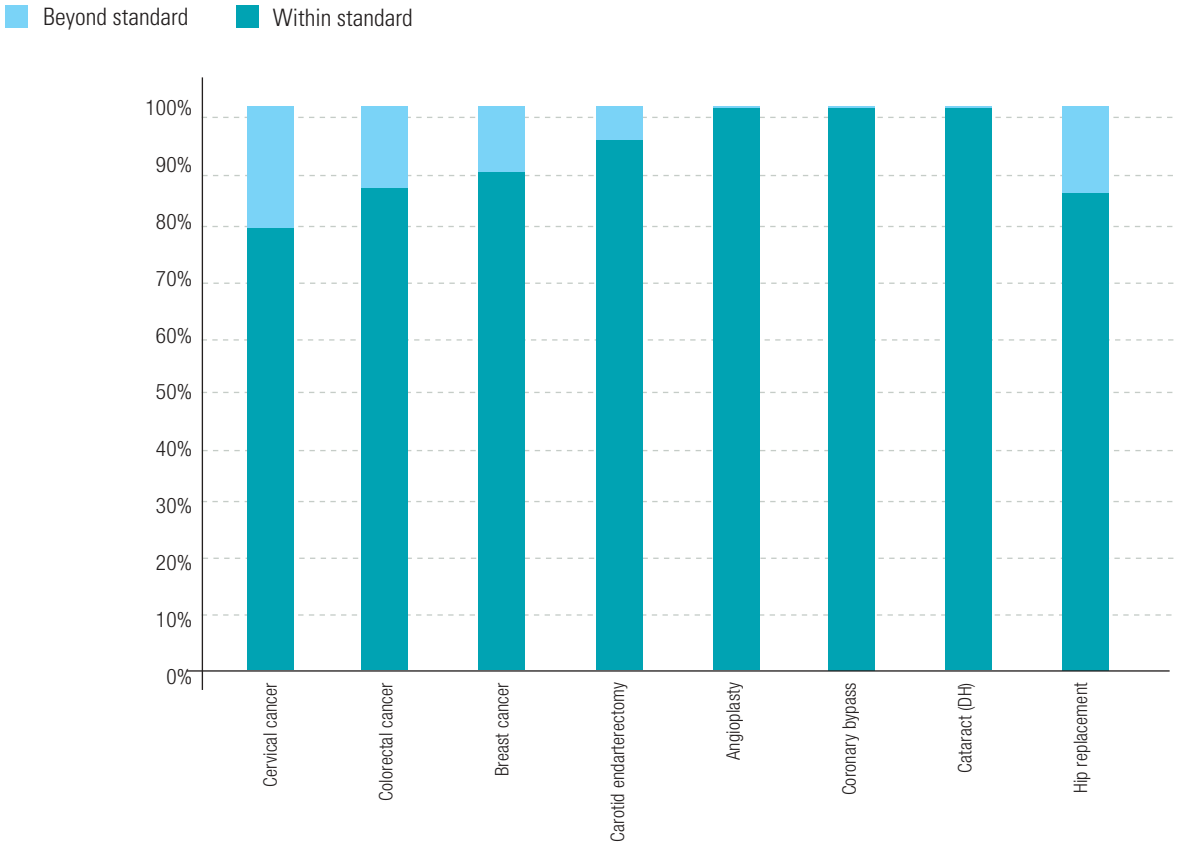


Public
Accredited private



Long-term and rehabilitation (public + private)
Inpatient acute (public + private)
Day hospital (public + private)

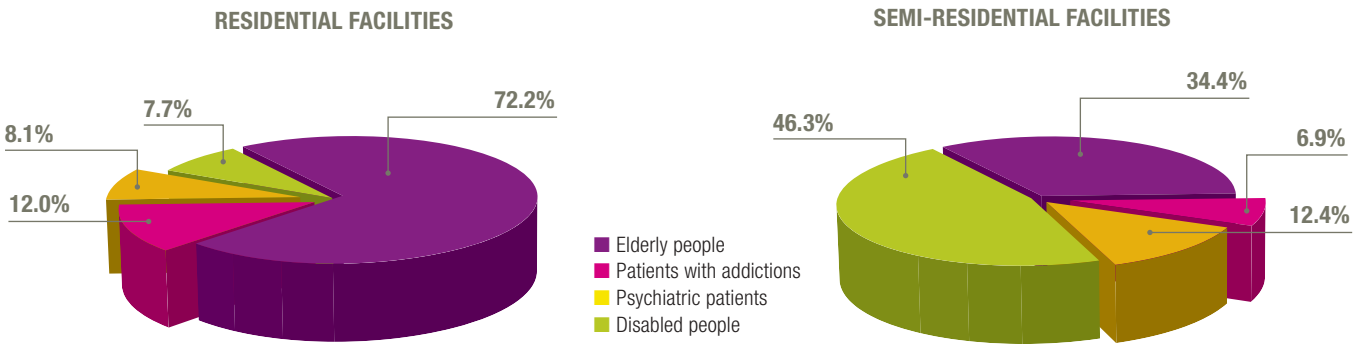
PERCENTAGE OF PLANNED SURGICAL OPERATIONS PERFORMED WITHIN TIME LIMITS SET BY NATIONAL STANDARDS, 2006



Beds in facilities for elderly, people with disabilities, mental health problems, addictions

Social and health care services for the elderly, for people with disabilities, mental health problems or addictions include a network of residential and semi-residential facilities.
The number of beds is constantly increasing: on December 31, 2006 there were 20,779 beds in residential facilities (20,107 in 2005 and 19,122 in 2004) and 7,533 beds in semi-residential facilities (7,272 in 2005 and 6,461 in 2004).
In 2007, with the starting of the three-year program to use the Regional Fund for non self-sufficient people, the network of residential and semi-residential facilities is also involved in a process of further specific qualification.

BEDS IN RESIDENTIAL AND SEMI-RESIDENTIAL FACILITIES = 28,312 in 2006



Hospice care

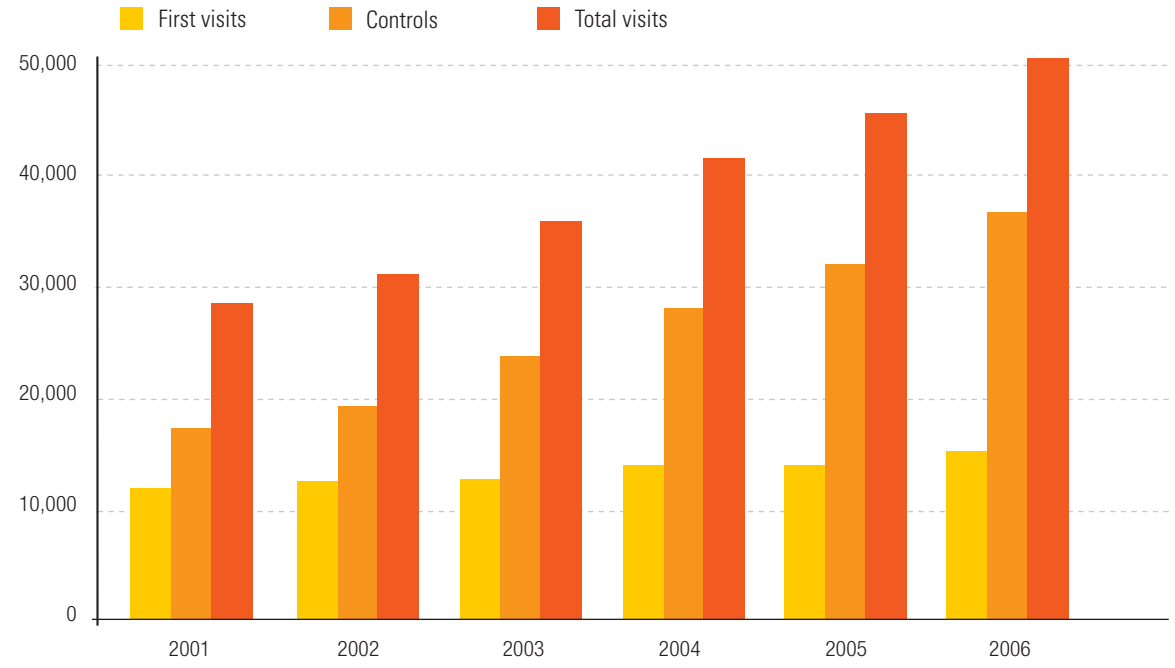
Hospices are now a fundamental part of the Regional Health Service care system. The system considers the single person in his/her entirety and complexity also with regard to his/her relational life, and ensures therapy against pain in every moment of care: at the hospital, at the hospice, in nursing homes and with home care.
The hospice care network has grown considerably in the last three years: from 9 hospices with 120 beds and 1,999 admissions in 2004 to 14 hospices, 170 bed and 2,859 admissions in 2006. In 2007 a 13-bed hospice belonging to the Local Health Trust of Bologna was opened at Bellaria Hospital and another with 11 beds, belonging to the Local Health Trust of Ferrara, will be opened in Codigoro. In 2002, there were 7 hospices.

			2004			2005			2006		
Health Trust	**Hospice**		**No. of beds**	**No. of patients admitted**	**Average length of stay (days)**	**No. of beds**	**No. of patients admitted**	**Average length of stay (days)**	**No. of beds**	**No. of patients admitted**	**Average length of stay (days)**
Piacenza Local Health Trust	Borgonovo Val Tidone	Public				10	7	20.1	10	149	16.6
Parma Local Health Trust	Borgotaro	Public				8	59	22.4	8	107	17.3
	Langhirano	Public				12	25	21.6	12	57	38.9
	Fidenza	Accredited private	15	49	20.5	15	152	23.1	15	193	24.2
Reggio Emilia Local Health Trust	Madonna at Ulivetto di Albinea	Accredited private	12	189	21.4	12	207	20.2	12	204	20.6
Modena University Hospital Trust	Polyclinic of Modena	Public	10	253	11.0	10	286	12.7	10	297	12.5
Bologna Local Health Trust	Chianatore Seragnoli	Accredited private	30	497	19.7	30	493	19.3	30	514	20.0
Imola Local Health Trust	Castel San Pietro	Public				12	148	17.9	12	217	17.0
Ferrara Local Health Trust	Ado	Accredited private	12	230	16.5	12	207	20.1	12	200	19.5
Ravenna Local Health Trust	Lugo	Public	8	70	21.0	8	83	23.2	8	120	19.6
Forlì Local Health Trust	Forlimpopoli	Public	11	314	12.2	11	302	12.5	11	265	14.5
	Dovadola	Public				8	12	20.5	8	108	22.9
Cesena Local Health Trust	Savignano sul Rubicone	Public	12	218	18.6	12	246	16.6	12	233	25.0
Rimini Local Health Trust	Rimini	Public	10	179	16.4	10	162	17.7	10	195	15.1
Total			**120**	**1,999**	**16.9**	**170**	**2,389**	**17.8**	**170**	**2,859**	**19.0**

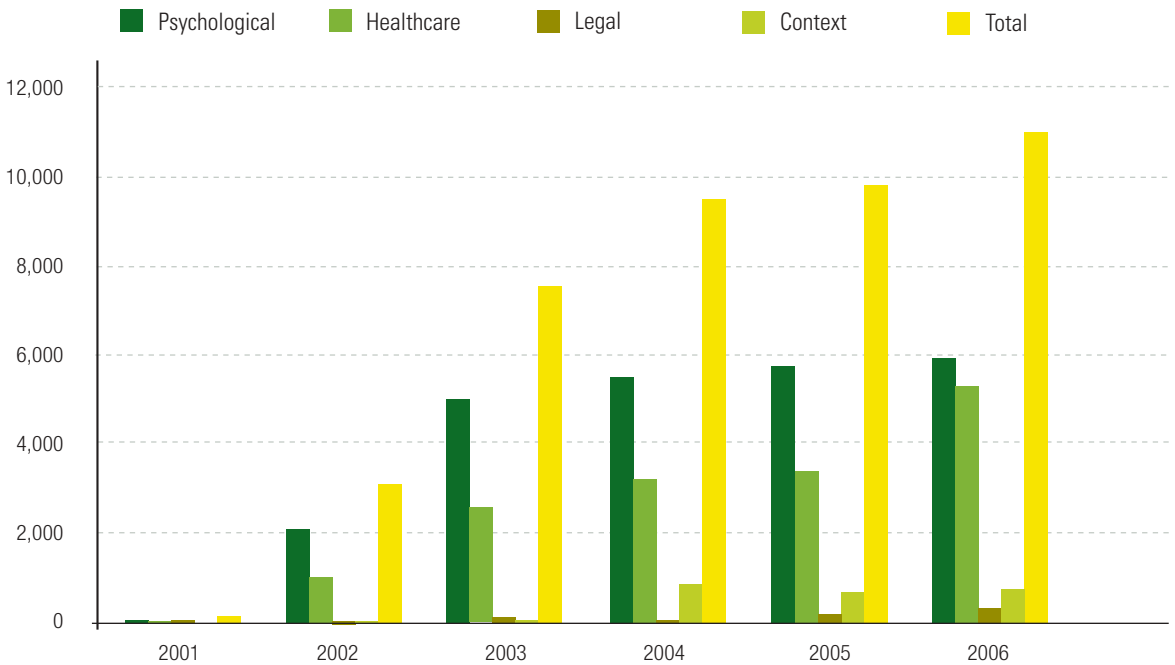
Services for senile dementias

The goal of the Regional program for senile dementias approved by the Regional Government in 1999 is to guarantee timely diagnosis and to offer support and care to dementia patients and their families throughout the entire course of the disease (that can be longer than 10 years), at home or in specific facilities.
Care is offered through a network system involving Local Health Trusts, local governments, associations of family members and volunteers. In the entire region, there are 47 facilities belonging to Local Health Trusts specialized in the diagnosis and care of senile dementia: 4 in Piacenza, 3 in Parma, 7 in Reggio Emilia, 9 in Modena, 10 in Bologna, 1 in Imola (Bologna), 6 in Ferrara, 4 in Ravenna, 1 in Forlì, 1 in Cesena and 1 in Rimini.
Care of Alzheimer disease (the main cause of senile dementia) involves different interventions: pharmacological, cognitive stimulation, psychological support and help groups for family members, training and informative courses for family members and healthcare personnel, specialist counselling.
In 2006, 50,784 visits (45,088 in 2005) were carried out in specialized facilities, that involved 14,668 new patients in addition to those already cared for. In the same year, 11,893 specialist consultations were offered (9,758 in 2005).

VISITS, 2001-2006



SPECIALIST CONSULTATIONS FOR FAMILY MEMBERS, 2001-2006

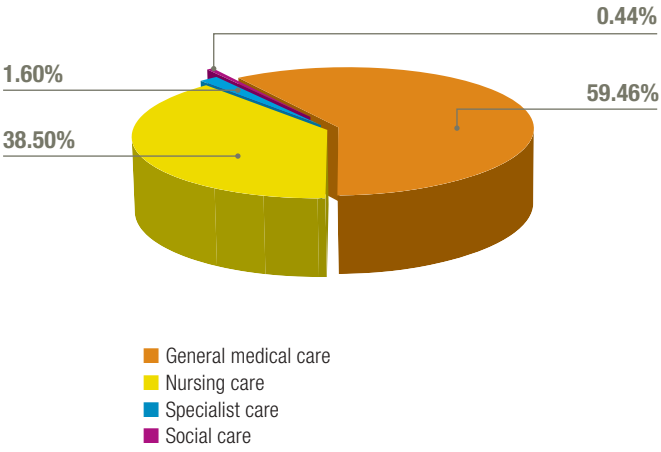


Home care

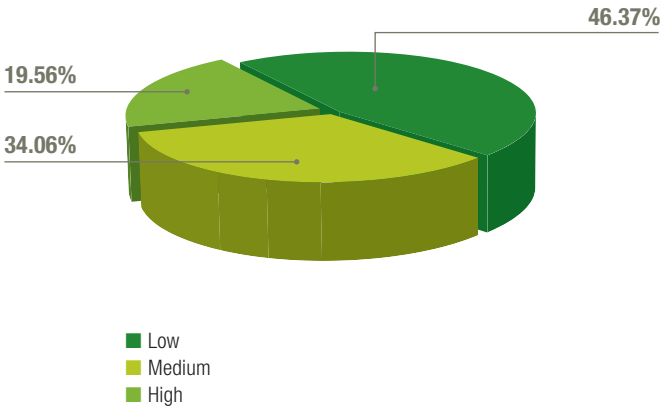
In Emilia-Romagna, home care registered a particularly significant growth in the last years. At December 31, 2006, 87,462 people were assisted, as compared to 55,000 in 2001 (84,000 in 2005).
The home care system takes care of patients who need help with daily activities or are at risk of needing such help, and have conditions that can be treated at home.
This form of care aims at avoiding improper use of hospital admissions, while guaranteeing the patient with continuity of care in his/her home.

Patients cared for = 87,462 in 2006

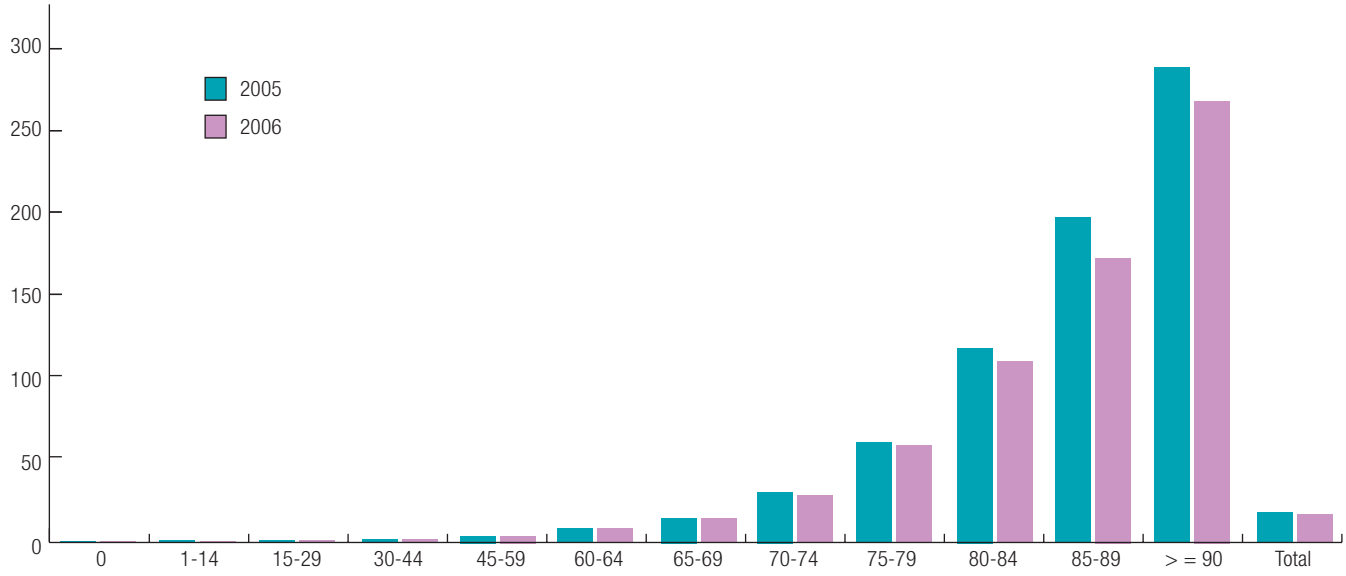
TYPE OF HOME CARE, 2006



LEVELS OF CARE INTENSITY, 2006



SPECIFIC RATES BY AGE PER 1,000 POPULATION, COMPARISON OF 2005 AND 2006

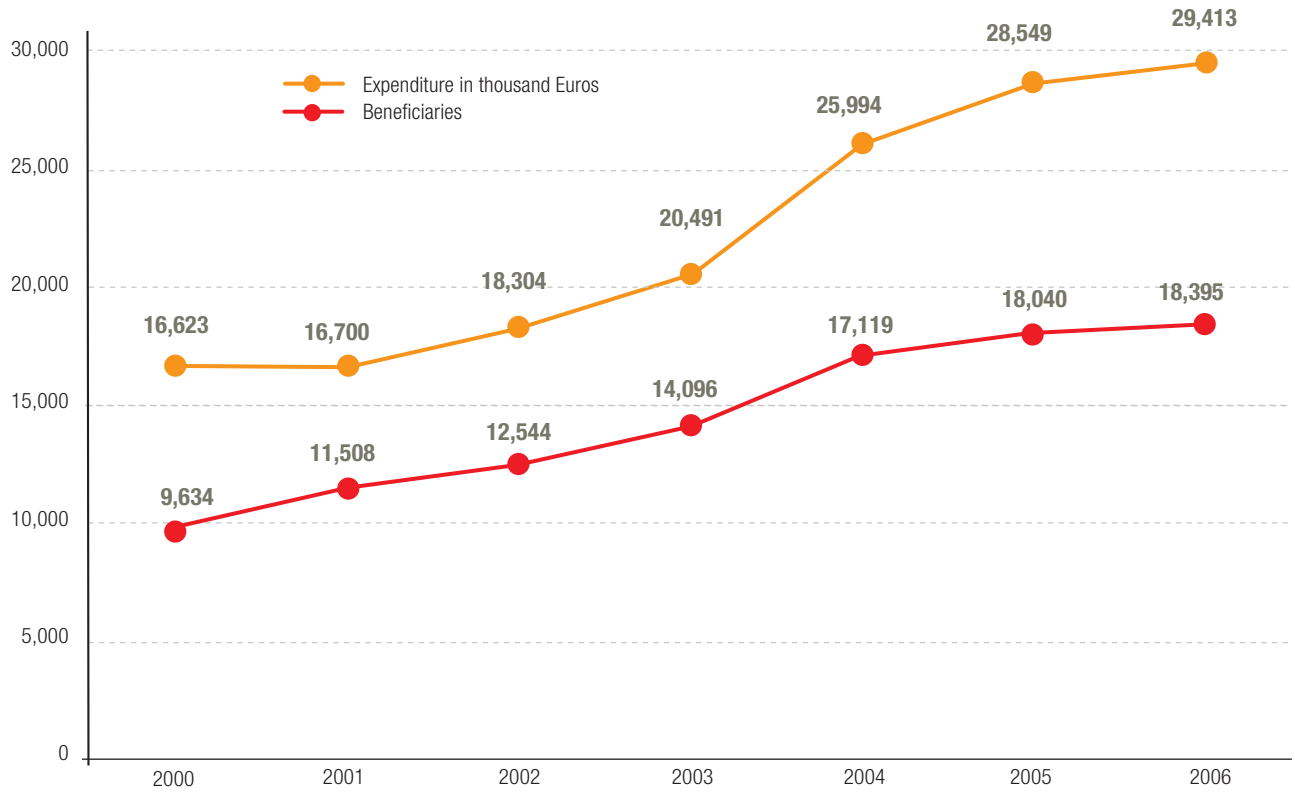


Care allowance

In 2006, despite a moderate increase in the number of families that receive care allowances to take care of sick, disabled or non self-sufficient members, the long-term growth trend was confirmed. The increase in the number of persons benefiting from care allowance was 1.9% with respect to the previous year, while the increase in healthcare and social assistance resources provided by the Region in 2006 was 2.9%. People receiving care allowances have almost doubled from 2000 up to now, increasing from 9,600 to 18,395; also financing increased from 16.6 to 29.4 million Euros in the last six years (25.5 millions from the healthcare fund and 3.9 millions from the social care fund, 1.7 of which from Municipalities).

People who received care allowances = 18,395 in 2006

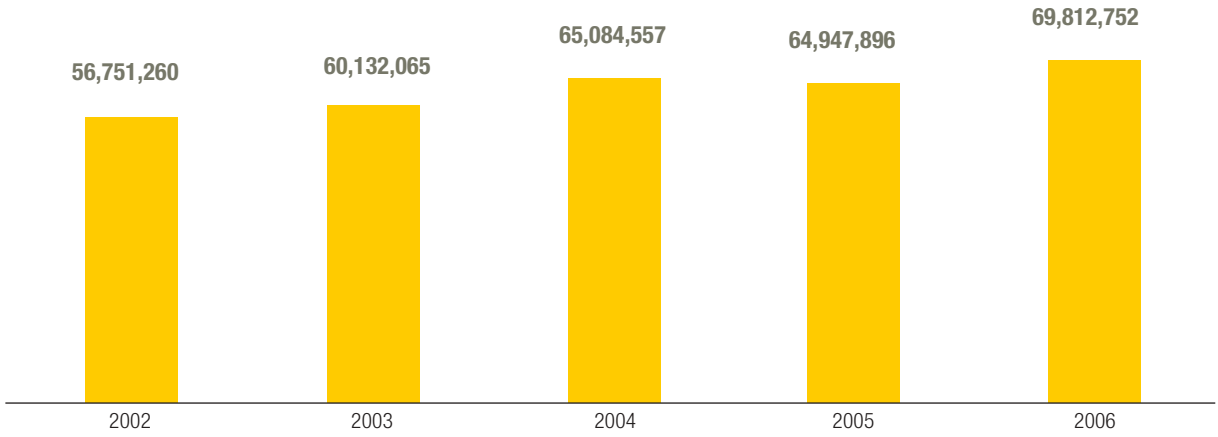
BENEFICIARIES AND EXPENDITURE, 2000-2006



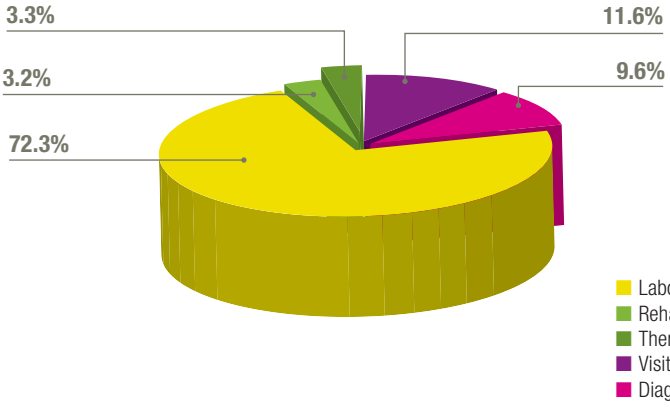
Outpatient specialist care

In 2006, a total of 69,812,752 outpatient specialist attendances were registered: 11.6% specialist visits, 9.6% diagnostics, 72.3% laboratory testing, 3.2% rehabilitation and 3.3% therapeutic. This represented an increase of about 5 millions with respect to 2005 (total 64,947,896).
As foreseen by a national agreement of March 2006, in 2006 Emilia-Romagna approved the Regional plan for containing waiting lists for specialist care (visits and testing) and admissions (in some specific areas).
For specialist care, 41 types of medical procedures were identified and grouped in the oncological, cardiovascular, mother-child and geriatric areas, and 5 types of specialist visits with significant impact: dermatology, ophthalmology, otolaryngology, orthopaedics and urology.
The Plan reconfirms the maximum waiting times for providing care: 24 hours for urgent cases, 7 days for deferrable urgent cases, 30 days for a first visit, 60 days for first-access instrumental diagnostic acts. In particular, for the 41 types of outpatient specialist medical procedures the maximum waiting times must be respected in at least 90% cases.
In Emilia-Romagna, systematic monitoring of waiting lists began in 1999 and, until the adoption of the new Regional Plan, constantly covered 25% visits and 17% diagnostic tests through the years, with the aim of providing care within the established times in 80% cases.

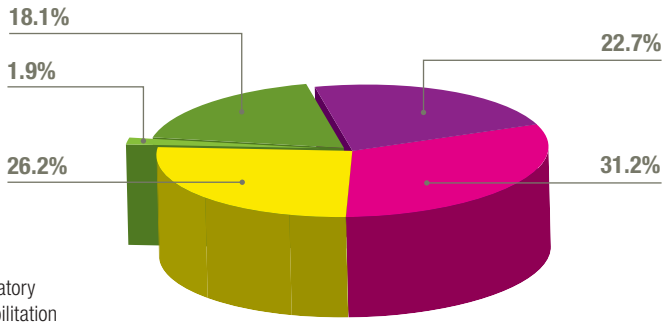
SPECIALIST MEDICAL PROCEDURES, 2002-2006



TYPES OF OUTPATIENT SPECIALIST MEDICAL PROCEDURES, 2006



ECONOMIC VALUES, 2006



SPECIALIST MEDICAL PROCEDURES BY TYPE, 2006

		No.	%
VISITS			
	First visit	5,738,653	
	Controls	2,304,301	
	Intensive short observation	52,742	
	Total visits	**8,095,696**	**11.60%**
DIAGNOSTICS			
	Instrumental diagnostics with radiations	2,700,092	
	Instrumental diagnostics without radiations	3,648,386	
	Biopsy	66,935	
	Other diagnostics	302,995	
	Total diagnostics	**6,718,408**	**9.62%**
LABORATORY			
	Blood samplings	4,601,910	
	Clinical chemistry	35,590,901	
	Haematology/clotting	6,855,582	
	Immunohaematology and transfusion	177,497	
	Microbiology/virology	2,591,536	
	Anatomy and pathologic histology	510,138	
	Genetics/cytogenetics	113,815	
	Total laboratory	**50,441,379**	**72.25%**
REHABILITATION			
	Diagnostic rehabilitation	137,078	
	Functional rehabilitation	1,379,058	
	Physical therapy	596,812	
	Other rehabilitation	111,208	
	Total rehabilitation	**2,224,156**	**3.19%**
THERAPEUTIC TREATMENTS			
	Radiotherapy	346,000	
	Dialysis	422,465	
	Odontology	138,590	
	Transfusions	18,903	
	Outpatient surgery	302,726	
	Other therapeutic treatments	1,104,429	
	Total therapeutic treatments	**2,333,113**	**3.34%**
TOTAL		**69,812,752**	**100.00%**

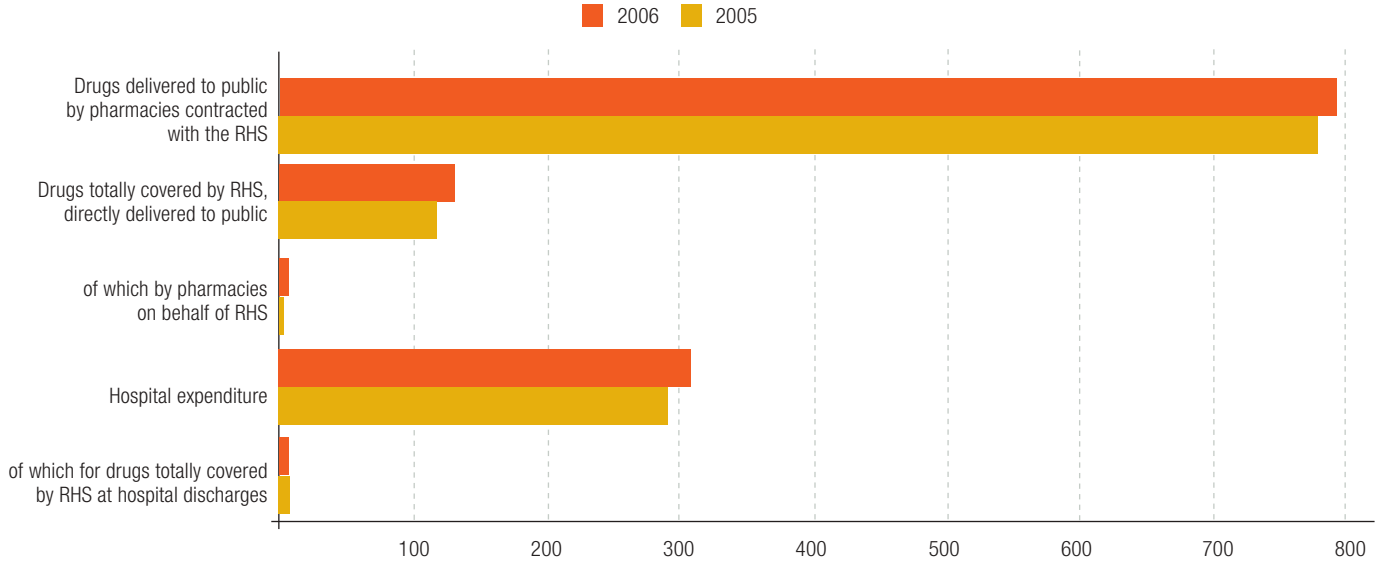
Pharmaceutical expenditure

The public pharmaceutical expenditure includes: a) drugs delivered to public by pharmacies contracted with the RHS; b) drugs delivered by pharmacies on behalf of the RHS; c) drugs delivered directly to patients by RHS services; and d) drugs delivered to inpatients in hospitals.
In 2006, total pharmaceutical expenditure covered by the Regional Health Service increased by 3.9%. Territorial expenditure relative to pharmacies open to the public and direct distribution of drugs by RHS services increased by 3.2%, while hospital expenditure for inpatients increased by 6.1%.
Territorial pharmaceutical expenditure reimbursed to contracted pharmacies increased by 1.88% with respect to 2005, as compared to the national increase of 4% (source: National Report of the Observatory on Medicines – OSMED, 2006). This relatively moderate increase in drug expenditure was mainly due to nationally approved efforts to reduce the price of medicines. It is important to note that the reduction in drug expenditure for discharged patients shown in the table is an effect linked exclusively to price dynamics, since the volume of distribution remained constant.
Analysis of drug consumption in 2006 shows an overall increase of 6.7%, and a greater increase at territorial level (+7.4%), which includes a growing direct supply through pharmacies on behalf of RHS; direct distribution to the public through the pharmaceutical services of the Health Trusts also continues to be significant (16%).
Consumption of drugs for inpatients in hospitals has increased 1.4% and the relative increase in expenditure can be attributed to a greater use of innovative and more costly drugs for the care of chronic degenerative diseases, such as those in the areas of oncology, neurology and rheumatology, with respect to the previous year.
Also in 2006, Emilia-Romagna had a lower cost of per capita drug expenditure covered by agreement with the Regional Health Service with respect to the national cost: 178 Euros as compared to 209.80 Euros (in 2005, 190.80 Euros as compared to 204.80 Euros).

EXPENDITURE BY TYPE AND PERCENTAGE VARIATION, 2005-2006

	2005	2006	% variation
Pharmaceutical net expenditure for drugs delivered to public by pharmacies contracted with RHS	778,737,436	793,383,348	1.88%
Pharmaceutical net expenditure for drugs totally covered by RHS, directly delivered to public	118,187,244	132,113,955	11.78%
of which by pharmacies on behalf of RHS	3,048,790	6,738,808	121.03%
Total territorial pharmaceutical expenditure	**896,924,679**	**925,497,303**	**3.19%**
Pharmaceutical expenditure for inpatients in hospitals	**290,561,302**	**308,299,248**	6.10%
of which for drugs totally covered by RHS at hospital discharges	8,718,230	7,235,280	-17.01%
Total regional pharmaceutical expenditure	**1,187,485,981**	**1,233,796,551**	**3.90%**

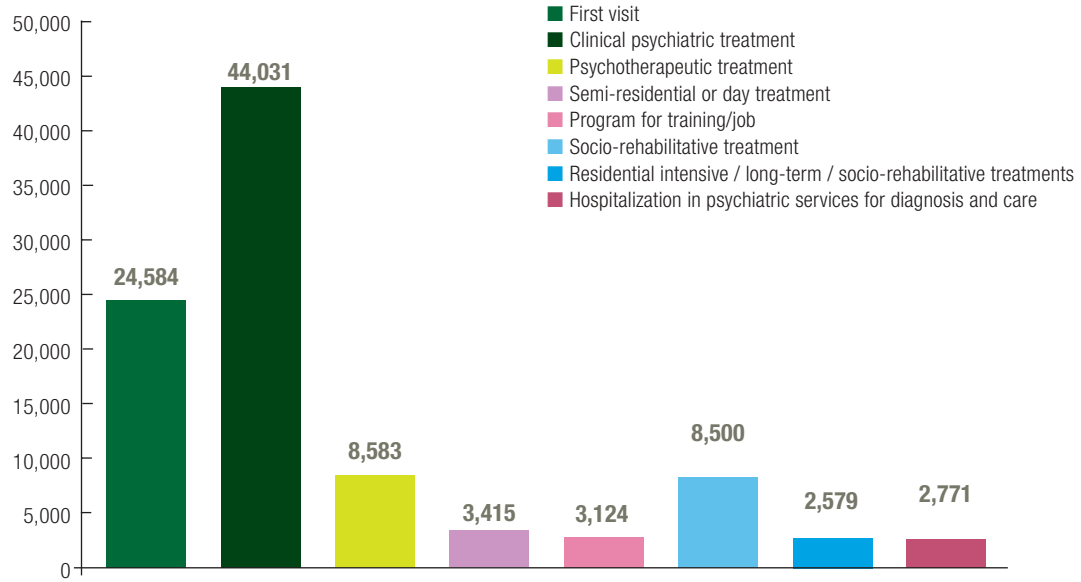
DIVISION OF TOTAL PHARMACEUTICAL EXPENDITURE BY TYPE, 2005-2006 (in million Euros)



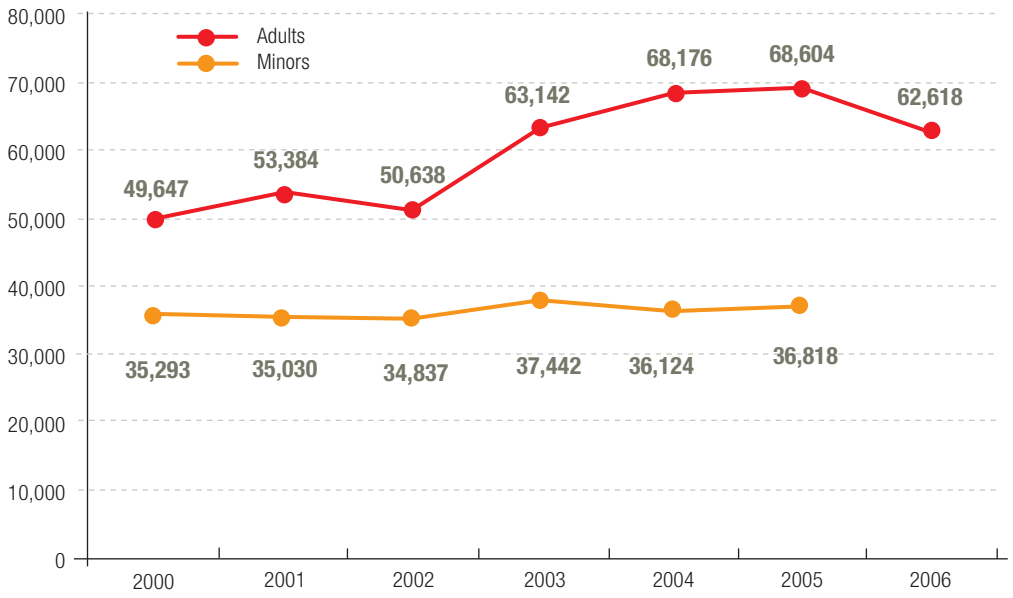
Mental health services

Mental health care consists in prevention, care, rehabilitation and reintegration in society of persons of all ages. Local Health Trusts, local authorities, volunteers and non profit organizations are involved in this process. Coordination is guaranteed by the Departments of Mental Health, present in each Local Health Trust, that unite the operational units of adult and child psychiatry and, quite everywhere, also the Substance abuse services (SerTs). This network of services is also facing the new needs in healthcare, such as eating disorders and disorders of the autistic spectrum.
In 2006, a joint re-organization pathway with all the involved subjects was implemented and concluded in the second regional Conference on mental health in October 2007 with a new Regional Plan for 2008-2010.
The regional project "G. Leggieri" is also continuing, aimed at connecting general practice physicians, paediatricians and Departments of Mental Health for a global responsibility for the person with mental disorders.
In the last few years, the number of persons cared for by the public Mental health service has grown: minors increased from 35,293 in 2000 to 36,818 in 2005 (last available datum); adults increased from 49,647 in 2000 to 62,618 in 2006. A new informative system for mental healthcare activities set up on an individual basis was fully operational from 2006, and this probably explains the slight drop in the activity data observed in 2006.

MAIN TYPES OF CARE PROVIDED, 2006



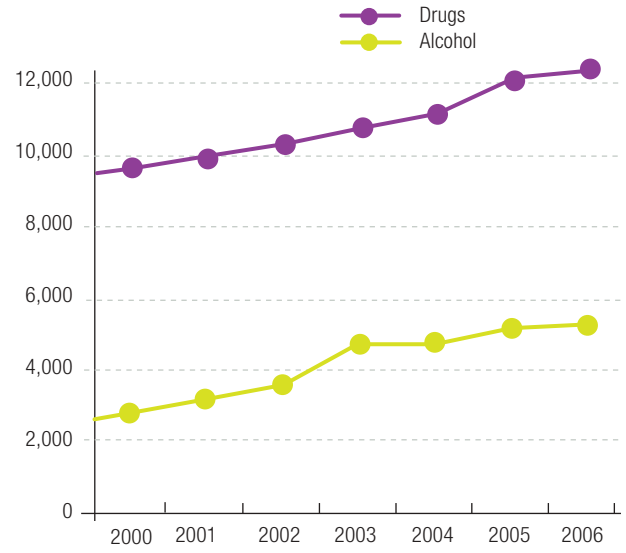
ADULT AND MINOR PATIENTS, 2000-2006



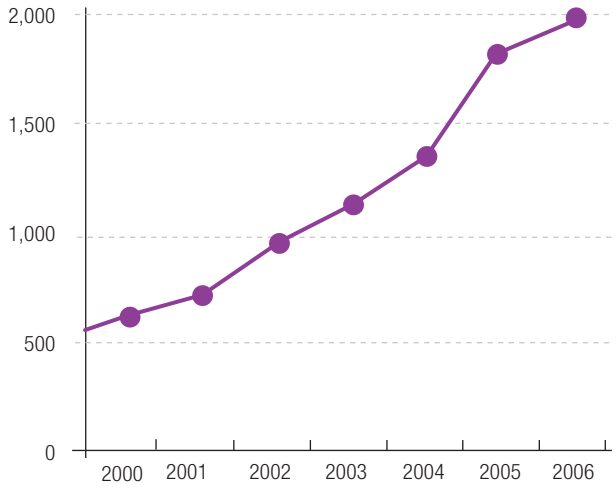
Substance abuse services

Care for those who are drug and alcohol abusers and their families is ensured by an integrated system involving the Substance abuse services (SerTs) of the Local Health Trusts, local authorities, non profit organizations and volunteers. Interventions include the definition of specific pathways for care and social and job rehabilitation.
The profile of substance abusers has changed radically over time: investigations and activity data demonstrate that more and more often they use more than one substance and that substance abuse is not necessarily linked to socially disadvantaged situations.
In 2006, most of SerT patients were heroin users (as primary substance): 8,998 out of more than 12,400.
The Regional Government approved in 2006 new guidelines to upgrade the system's capacity to respond to the new phenomena connected with drug use.
Internet website:
http://www.regione.emilia-romagna.it/dipendenze

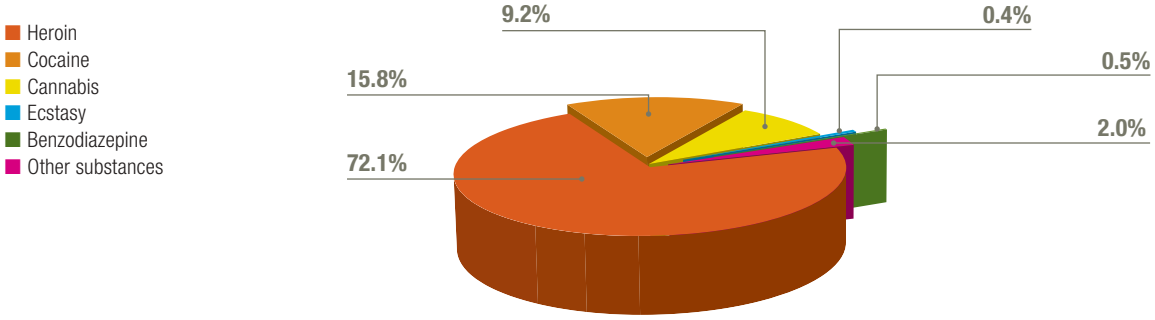
PERSONS WITH DRUG AND ALCOHOL ADDICTIONS TREATED AT SERT, 2000-2006



PERSONS WITH COCAINE ADDICTIONS TREATED AT SERT, 2000-2006



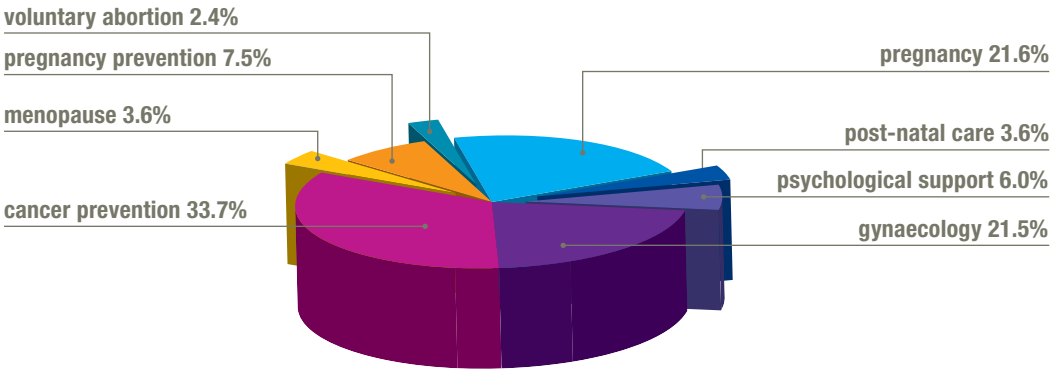
PERSONS WITH DRUG ADDICTIONS TREATED AT SERT FOR PRIMARY SUBSTANCE OF ABUSE, PERCENTAGE VALUES, 2006



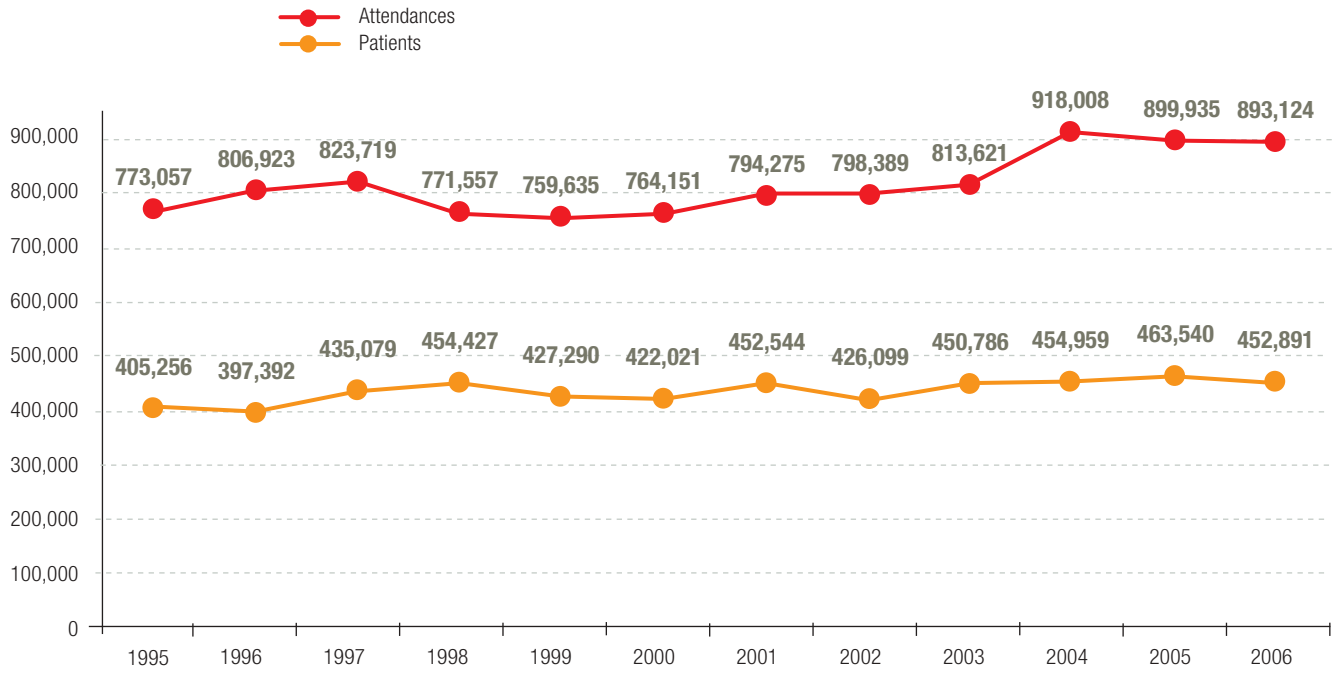
Care in Family advisory health centres, youth health centres, health centres for immigrant women and their children

The Family advisory health centres are 214 including: 29 youth health centres and 16 health centres for immigrant women and their children, where a cultural mediator is always available. From 1995 to 2006, activity increased by 16% and the users increased by 12%. Between 2005 and 2006, data remained mostly the same.
In 2006, including pap test screening that concerned 230,197 women, the number of users amounted to 452,891; 17% of them were immigrants.
There has been a prevalence of attendances for early diagnosis of female cancers (pap test, colposcopy and breast examination), which represent almost 34% of the total. Next was maternity care (21.6%) and gynaecological specialist care (21.5%). Maternity care generally increased 120% since 1995 (for foreign women from 740 in 1995 to 7,472 in 2006). Medical certification for permitting abortions represents 2% of the total.
Family advisory centres develop also health education activities mainly on reproduction problems (about 13,000 women/couples involved in 2006), sexual health and AIDS prevention for teenagers (about 37,500 adults and youths).

AREAS OF ACTIVITY IN FAMILY ADVISORY HEALTH CENTRES, 2006



ACTIVITY IN FAMILY ADVISORY HEALTH CENTRES: PATIENTS AND ATTENDANCES, 1995-2006



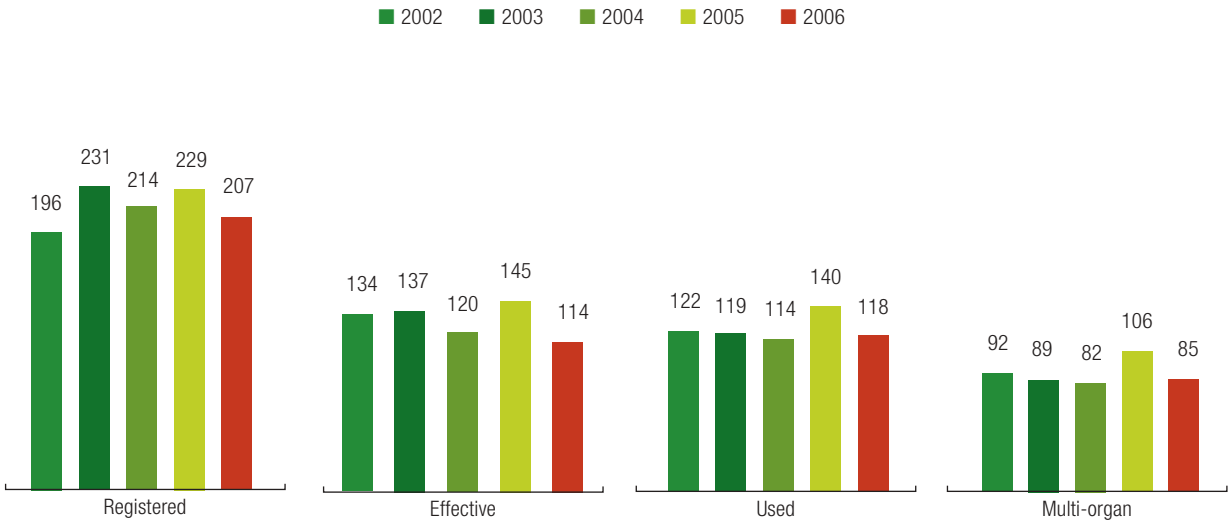
Donations and transplants of organs, tissues and cells

Donations

In 2006, in Emilia-Romagna the number of effective donors was again confirmed as above the European and Italian average: 29.6 per million population (the national average was 21.6). There was a decline in number of donors with respect to 2005, because of the decreasing number of persons deceased with brain lesions in the regional intensive care units (63 fewer in 2006 than in 2005).

Activities to make the public aware of the importance of donations are carried out by campaigns as “A conscious choice”, coordinated by the Emilia-Romagna Transplant Reference Centre (CRT-ER), with the participation of Health Trusts and of volunteers and patients associations.

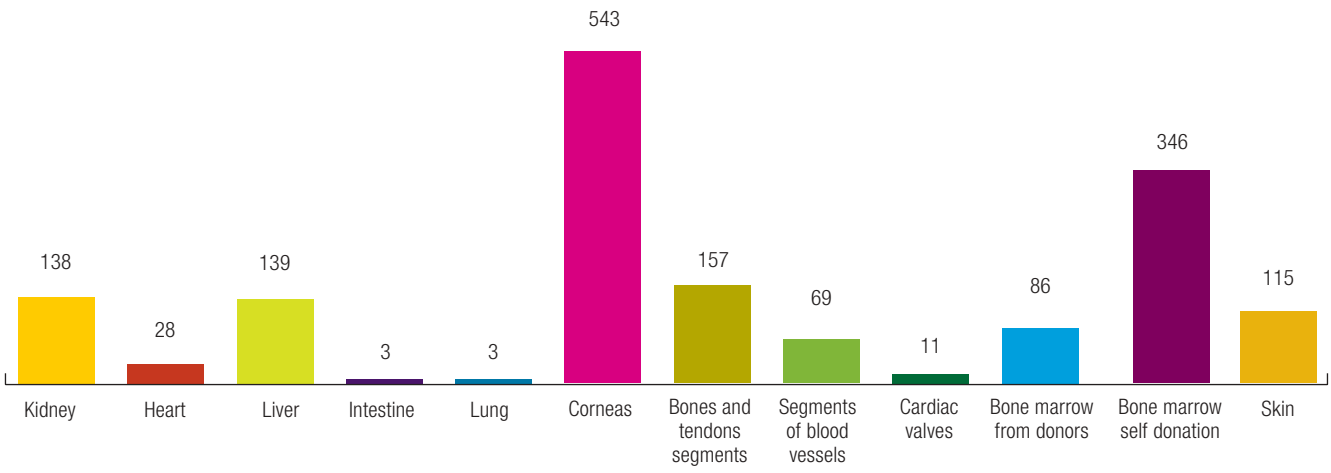
DONORS (REGISTERED, EFFECTIVE, USED AND MULTI-ORGAN) IN EMILIA-ROMAGNA, 2000-2006



Transplants

In 2006, 311 organ transplants were performed, 9 from living donors. There were 139 liver transplants (34.4 per million population), which exceed the levels of world excellence already reached in Spain. Kidney transplants (32.9 per million population) and heart transplants (7.0) were also above the national average. Short, medium and long-term follow-up of transplanted patients shows results similar to the best obtained at international level.
Emilia-Romagna has single waiting lists for kidney transplants and liver transplants. The single list for kidney transplants has made the donation-transplantation process fair and transparent as it assures allocation of each donation to the most compatible recipient, regardless of the place of registration (Bologna, Parma, Modena).
The single list for liver transplants assures transplantation of the patients in the most severe clinical conditions, regardless of registration in Bologna or Modena.
The regional system of donations and transplants of organs and tissues has its own internet website:
http://www.saluter.it/trapianti//

TRANSPLANTS OF ORGANS, CELLS AND TISSUES IN EMILIA-ROMAGNA, 2006



Patients in the waiting list as of December 31, 2006

On December 31, 2006 there were 1,734 patients in the waiting list for kidney transplant, 502 for liver transplant, 65 for heart transplant, 14 for intestine/multivisceral transplant and 2 for lung transplant. Waiting times were shorter than the national mean for kidney transplants (2.7 years as compared to 3.03) and for heart transplants (1.21 years as compared to 2.33). The waiting time was 2.07 years for liver transplant, which is above the national average (1.84) also because 29% of all Italian patients on the waiting list for this type of transplant are in Emilia-Romagna.

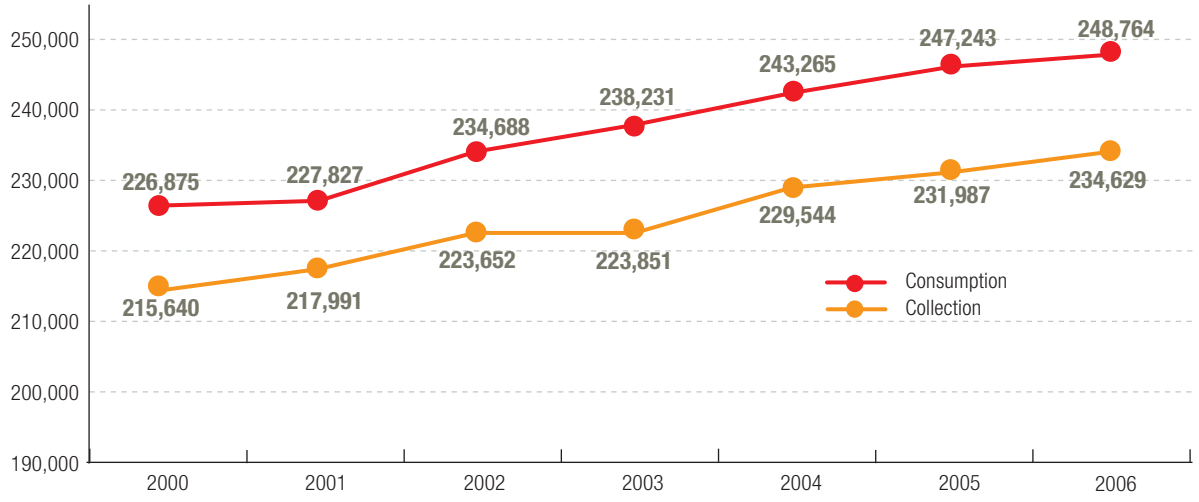
Blood collection and consumption

In 2006, as in the previous year, Emilia-Romagna reached regional independence and contributed with the transfer of more than 15,000 units of blood to needy regions. There were 248,764 units of whole blood collected (+0.6% with respect to 2005) and 234,629 units of blood consumed (+1.1%). An important part of this "blood system" is the collection of plasma, which registered an increase of 4% as compared to 2005. In the last six years, the trend in collection has been in constant growth (from 226,875 to 248,764). In the same period, transfer of units of blood to needy regions increased from 13,709 to 15,115. These results were reached also thanks to the constant effort of the volunteer associations to involve donors (more than 163,500 in 2006). A Regional Blood and Plasma Plan aims at the integration of transfusion facilities, in order to rationalize and better govern the activities of collection and production of blood components and plasma derivations. It also promotes the integration of all subjects involved in the blood system. Internet website: **http://www.donaresangue.it**

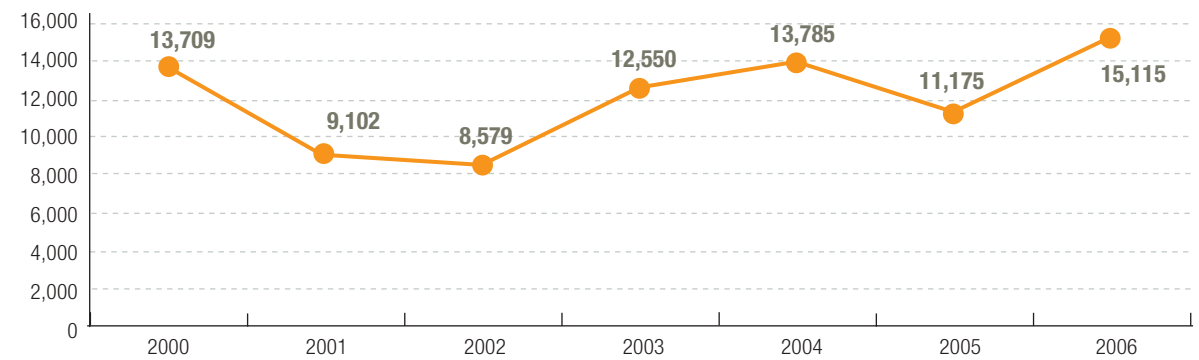
BLOOD COLLECTION AND CONSUMPTION (RED UNITS), COMPARISON OF 2006 AND 2005

	2006 collection	2005 collection	% difference 2006-2005	Goals for 2006 collection	2006 consumption	2005 consumption	% difference 2006-2005	Goals for 2006 consumption
Piacenza	14,931	14,974	-0.3	14,870	15,334	14,611	4.9	15,100
Parma	28,218	27,703	1.9	27,876	24,010	22,408	7.1	21,843
Reggio Emilia	23,690	23,169	2.2	22,650	17,815	17,908	-0.5	18,250
Modena	36,045	38,222	-5.7	38,200	31,389	29,918	4.9	29,000
Bologna	63,335	61,329	3.3	60,000	72,470	73,004	-0.7	72,350
Ferrara	21,547	20,931	2.9	20,000	22,832	21,944	4.0	21,600
Ravenna	29,404	29,488	-0.3	29,762	23,679	23,733	-0.2	22,303
Forlì, Cesena, Rimini	31,594	31,427	0.5	30,000	27,100	28,461	-4.8	29,000
Total	**248,764**	**247,243**	**0.6**	**243,358**	**234,629**	**231,987**	**1.1**	**229,446**

BLOOD COLLECTION AND CONSUMPTION (RED UNITS), 2000-2006



TRANSFER OF BLOOD (RED UNITS) TO OTHER REGIONS, 2000-2006



Screening for prevention and early diagnosis of breast, cervical and colorectal cancer

Emilia-Romagna has three active population screening programs for prevention and early diagnosis of breast cancer (women 50-69 years of age, for a total of 540,000), cervical cancer (women 25-64 years of age, for a total of 1,200,000) and colorectal cancer (men and women 50-69 years of age, for a total of 1,050,000).
The tests offered – mammography, pap test, fecal blood – are free of charge, as any required additional testing and care, which are immediately offered if necessary.

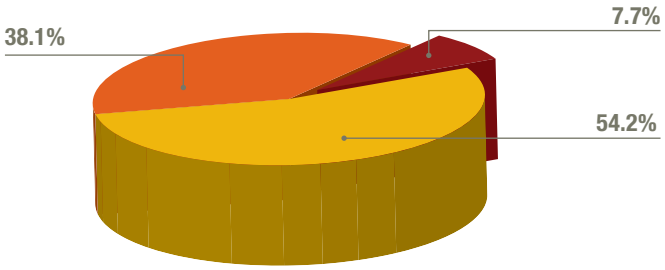
Screening programs for breast and cervical cancers

These programs have been active since 1996. Throughout 2006, the women involved were invited for the fourth time to have a pap test and for the fifth time to have a mammography.
Participation was high: 70.5% for mammography and 52.4% for pap test. At national level, participation was 60.9% for mammography and 36.7% for pap test. Women's attention to prevention is demonstrated also by their habit to undergo these tests: a national study (PASSI), based on telephone interviews conducted in 2005, shows that in Emilia-Romagna 83% women aged between 25 and 64 years report having had a pap test in the last 3 years, while 80% women aged between 50 and 69 years report having had a mammography in the last 2 years.
Internet website:
http://www.regione.emilia-romagna.it/screening/

Screening program for colorectal cancer

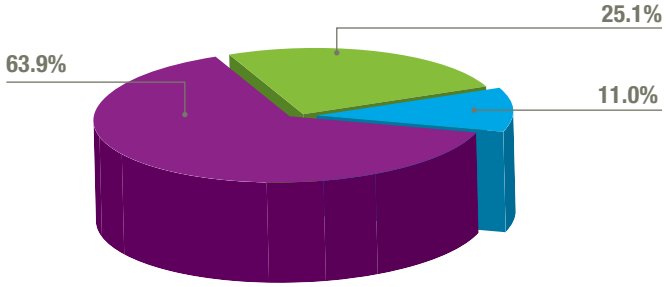
This program was launched in March 2005 throughout the region and the first round was meant to be concluded by March 2007. With respect to the planned calls by the end of 2006 (922,000 women and men), 91.9% were actually contacted. The percentage of participation (45.6%) among all the persons contacted from the beginning of screening was higher among women (47.3%) than men (43.7%).
In Italy, only 31.6% people aged 50-69 years are involved in an organized program of screening for colorectal cancer. Two regions, Emilia-Romagna and Basilicata, activated screening throughout their territory in 2005, followed by Lombardia and Valle d'Aosta in 2006.
Internet website: **http://www.saluter.it/colon**

SCREENING FOR CERVICAL CANCER: participation in 2004-2006
Population covered: women aged 25-64 years (1,185,830 as of December 31, 2006)



- Women participating in the screening program: women who underwent the screening pap test in the last three years.
- Women invited but not participating: most of these women have the pap test done outside the screening program, as demonstrated by the national study PASSI.
- Women to involve in the future: women still to be invited (25-year-old women, immigrants) or to re-invite for the following pap test (after three years).

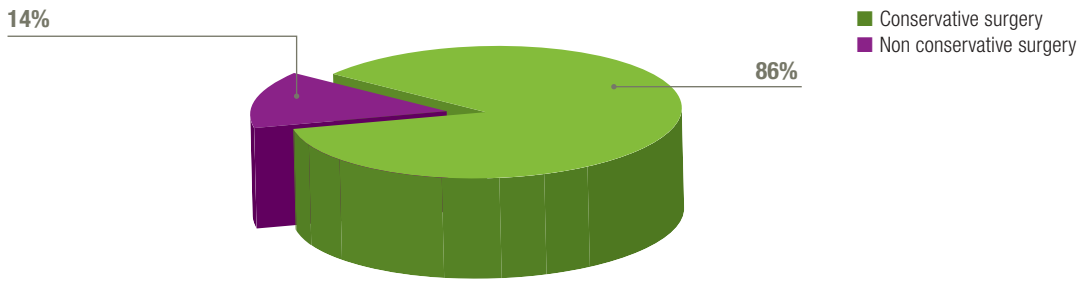
SCREENING FOR BREAST CANCER: participation in 2005-2006
Population covered: women aged 50-69 years (539,282 as of December 31, 2006)



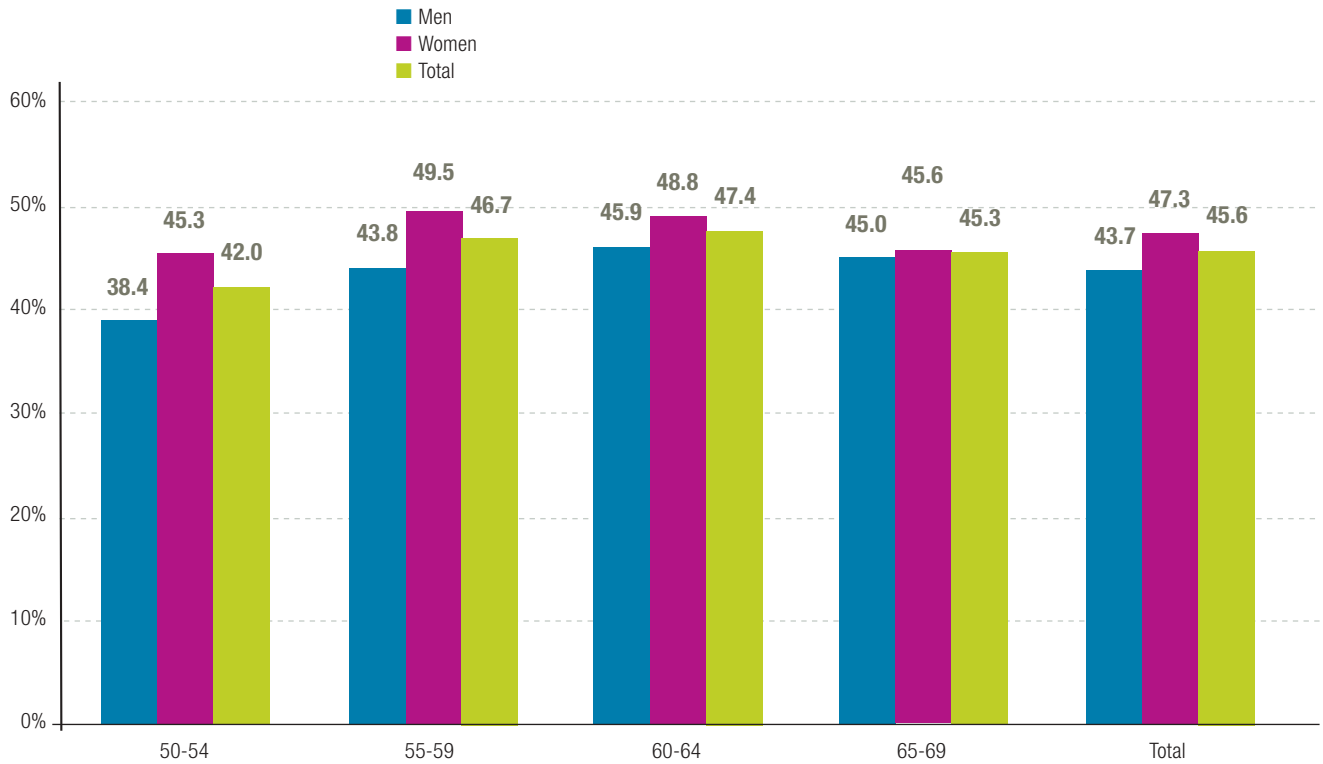
- Women participating in the screening program: women who had the screening mammography done in the last two years.
- Women invited but not participating: more than half of these women have the mammography done outside the screening program, as demonstrated by the national study PASSI.
- Women to involve in the future: women still to be invited (50-year-old people, immigrants) o to re-invite for the following mammography (after two years).

CONSERVATIVE SURGERY FOR BREAST CANCER

When surgery is necessary, particular attention is given to suggesting and adopting appropriate conservative treatment of the breast. The last available data (2005) show that conservative surgery has reached 86% of total surgery.



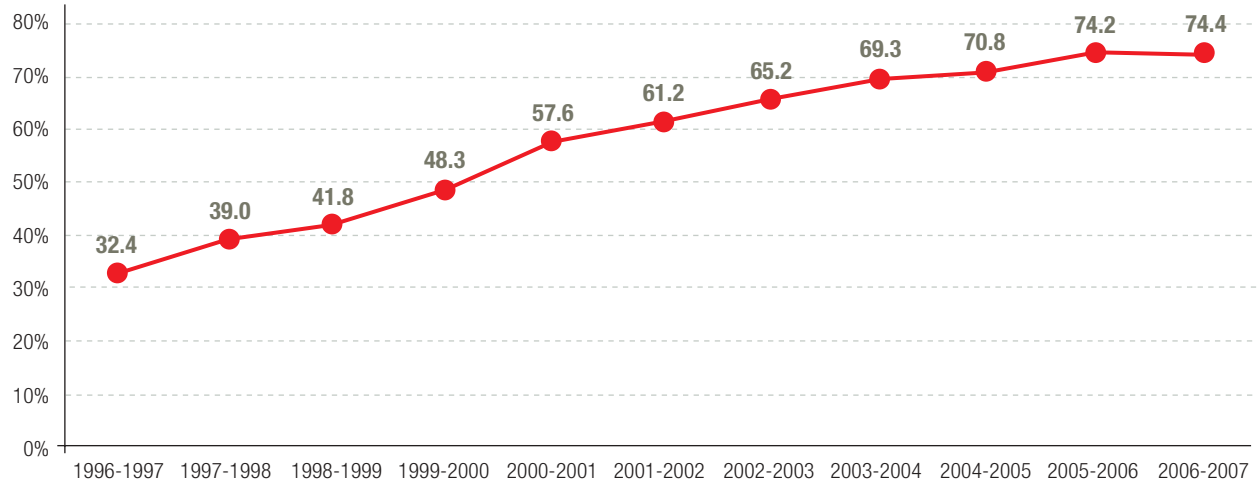
SCREENING FOR COLORECTAL CANCER: participation from the beginning of the program (March 2005) to December 31, 2006
Population covered: men and women aged 50-69 years (1,049,602 on December 31, 2006)



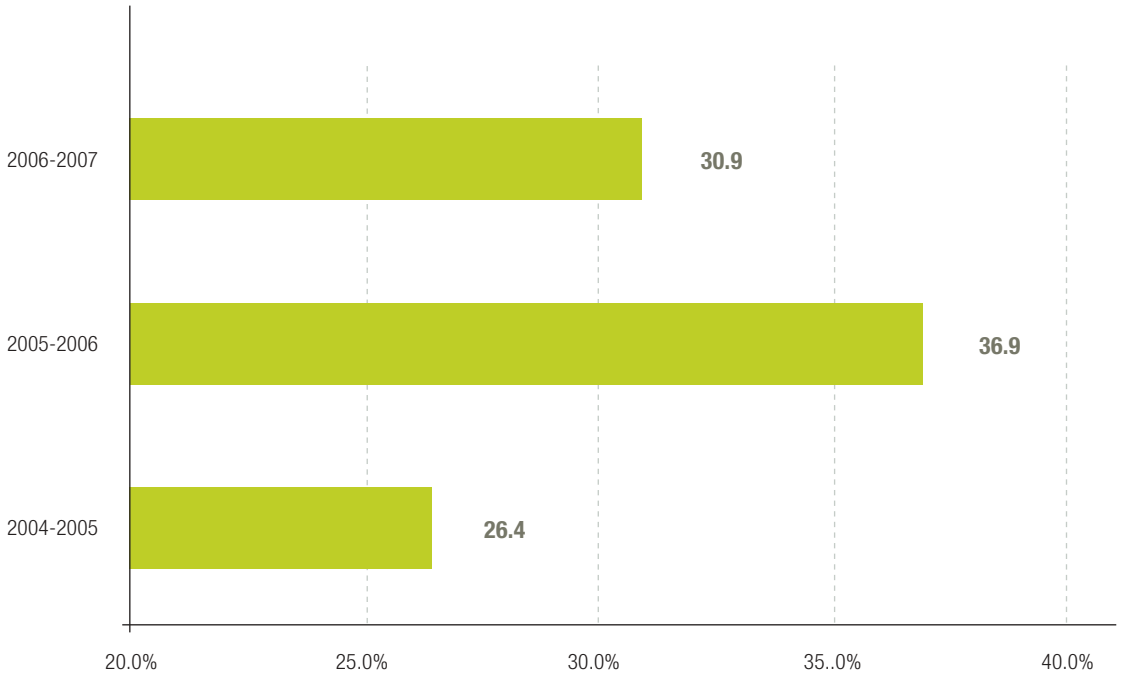
Influenza vaccination

The regional program for influenza vaccination is directed – free of charge – at people over 65, adults and children with chronic diseases, healthcare personnel and those working with the public. The trend of vaccination coverage for people over 65 has grown constantly since 1996-1997, reaching 74.4% in the 2006-2007 campaign (population over 65 was 961,323 as of December 31, 2006). Vaccine coverage is still low among healthcare personnel, registering 31% in the 2006-2007 campaign, after an increase in the previous year (36.9%) probably due to the large mass media interest for avian influenza.

INFLUENZA VACCINATION IN POPULATION OVER 65 (% of coverage)
(Campaigns from 1996-1997 to 2006-2007)



INFLUENZA VACCINATION IN HEALTHCARE PERSONNEL* (% of coverage)
(Campaigns 2004-2005, 2005-2006, 2006-2007)

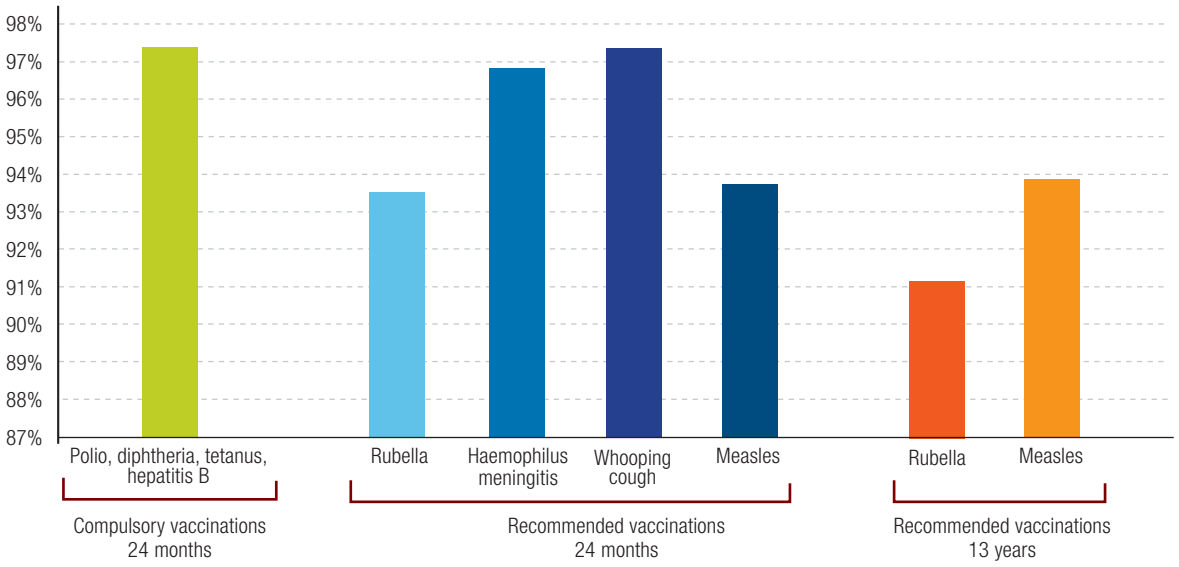


* Coverage was calculated considering as denominator the number of healthcare personnel employed by the Regional Health Service in healthcare roles, general practice physicians and contracting paediatricians as of 31/12/2004, 31/12/2005 and 31/12/2006.

Childhood vaccinations

Emilia-Romagna has for many years reached levels of coverage of more than 95% children, significantly above the national average, particularly for compulsory vaccinations (polio, diphtheria, tetanus, hepatitis B). Coverage for vaccinations that are strongly recommended (rubella, haemophilus meningitis, whooping cough, measles) is also above the national average: more than 93% in children aged 2 years.
Starting in 2006, meningococcal and pneumococcal vaccinations were offered for free to children born in 2005 and 2006. The coverage rate will be available next year, but it is already known that the administered doses of hepta-valent pneumococcal conjugate vaccine doubled from 45,430 to 83,442 and the administered doses of meningococcal vaccine multiplied five times with respect to 2005.
In children at increased risk because of predisposing chronic diseases – especially in children with cochlear implants (93%) and asplenic ones (79%) –, the pneumococcal vaccination, which is offered since 2001, shows good coverage.
The commitment to increase coverage for all vaccinations in risk groups, to promote boosters of measles vaccination in children that were not reached, and to diffuse rubella vaccination in women in child-bearing age to prevent congenital rubella, continues also in 2007.

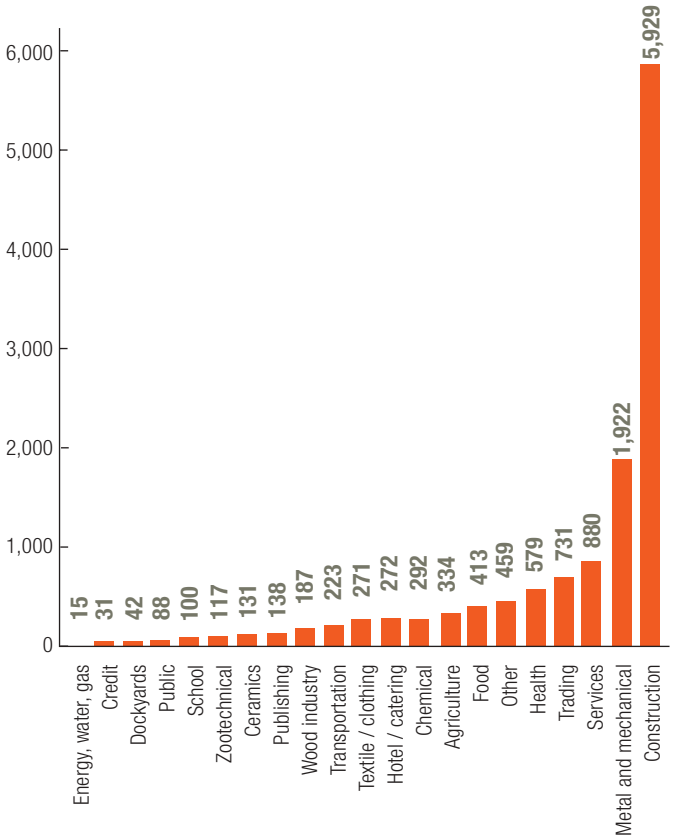
CHILDHOOD VACCINATIONS, 2006 (% of coverage)



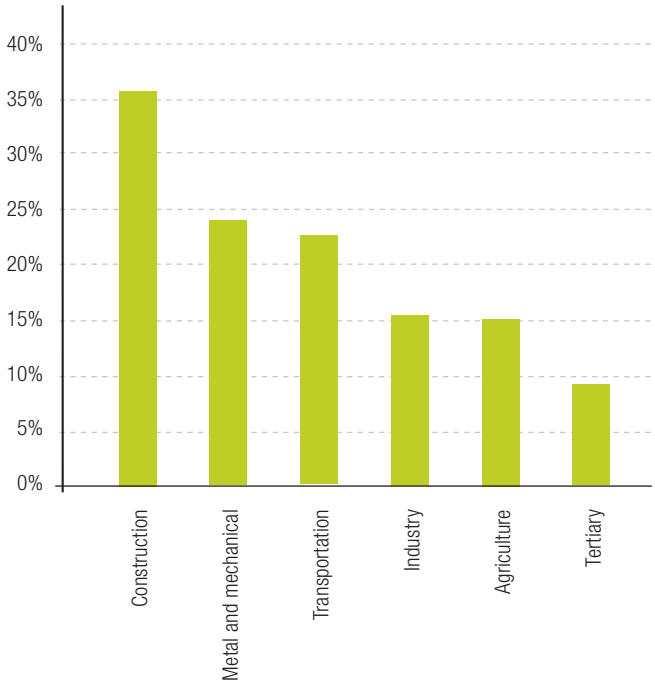
Occupational safety

Every year in Emilia-Romagna, more than 120,000 occupational accidents are reported to the National Insurance Institute for Occupational Accidents (Inail). In 1995 10/100 employed workers reported accidents, in 2006 the ratio decreased to 7.1/100.
In 2006, the Services for prevention and safety in workplaces of the Local Health Trusts inspected 13,154 firms (3.38% of the total) employing 305,979 workers (more than 1.5 million workers in the whole region). Twenty three per cent of the firms inspected were found to be below the safety standard: 91% of them were administratively prosecuted (in 2006, fines amounted to 4 million Euros). For 9% (277 firms), a penal procedure was started. Since some years, Emilia-Romagna has activated a special inspection plan for the construction sector (50,061 firms). In 2006, 5,929 inspections were carried out. Accidents with outcomes of permanent disability decreased from 6 per 1,000 workers in 2000 to 4.15 in 2005 in this sector.
In 2006, an agreement was signed in Ravenna by the port authorities, the firms working in the port and the Local Health Trust to guarantee higher levels of safety. In 2007, an agreement to increase safety in the ceramic sector was signed by ceramic producer association, National Insurance Institute for Occupational Accidents, workers' Unions and Emilia-Romagna Region.
In 2006, 51,629 inspections were carried out on special equipment (high pressure, lighting, electric energy facilities) in private firms as well as in plants for civilian use. The inspections evidenced 3,589 irregular situations (6.5% plants inspected).

FIRMS INSPECTED IN EMILIA-ROMAGNA, 2006



PERCENTAGE OF FIRMS PENALIZED AFTER INSPECTION, 2006



INSPECTIONS FOR SPECIAL EQUIPMENTS, 2006

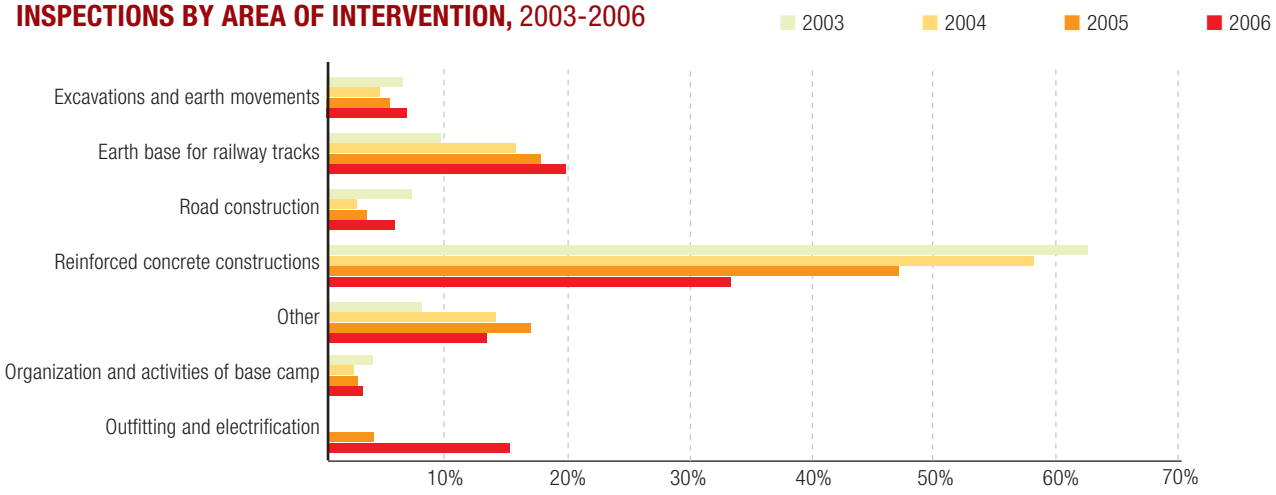
	No. of regular plants	No. of irregular plants	% of irregular plants
High pressure equipments	16,169	894	5.53%
Lifting equipments	23,102	1,558	6.74%
Lifts and service elevators	8,112	552	6.80%
Hydroextractors	115	33	28.70%
Lightning conductors	608	30	4.93%
Earth connection equipments	4,141	173	4.18%
Heating systems	2,239	307	13.71%
Antiexplosion systems	732	42	5.74%
Total	**55,218**	**3,589**	**6.50%**

Occupational safety in large projects: "High speed" Bologna-Milano railway line

Particular attention is dedicated to safety in the construction sites of great infrastructures for transportation. These works evidence the particular need of interventions to guarantee safety and health care to the workers, given the complexity of the works and the characteristics of the areas involved.
Inspections in the construction sites of Bologna-Milano high speed railway line increased in particular for outfitting and electrification (0.1% in 2003 and 15.5% in 2006).
The number and the frequency rate of accidents decreased in 2006, while the rate of severity remained mostly the same.

Examination of the causes of serious accidents (prognosis over 30 days) shows that falls (20.9% in 2004, down to 10% in 2006) and "crushing" accidents (from 17.9% to 2.5%) have decreased, while the phenomena of "sliding" (from 14.9 to 22.5% in 2006) and "collision" (from 5.9% to 25%) continue to be important. Analysis of serious accidents and reports of inspectors led to a strong development of activities for safety, endorsed with a joint technical note by Emilia-Romagna and Tuscany Regions in March 2006.

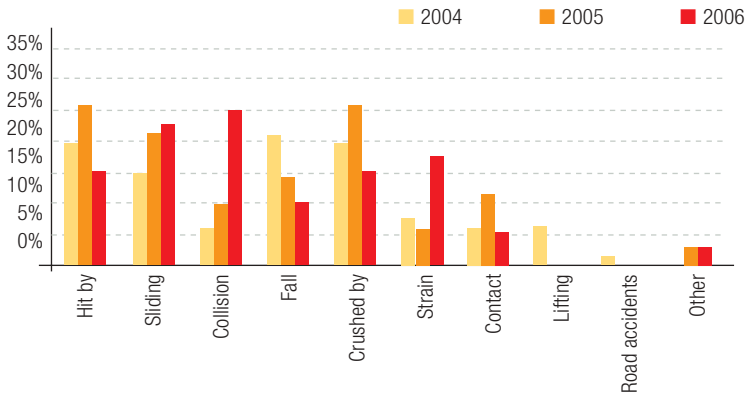
INSPECTIONS BY AREA OF INTERVENTION, 2003-2006



ACCIDENT FREQUENCY AND SEVERITY, 2004-2006

	2004	2005	2006
No. of accidents	296	219	133
No. of serious accidents (with more than 30 day prognosis)	68	71	40
No. of working days missed	7,772	7168	3846
No. of hours worked	6,512,347	5,873,652	3,904,126
Frequency index (accidents / million hours)	45.5	37.29	34.07
Gravity index (days lost / thousand hours)	1.19	1.22	0.99

CAUSES OF SERIOUS ACCIDENTS (with prognosis over 30 days), 2004-2006 (%)



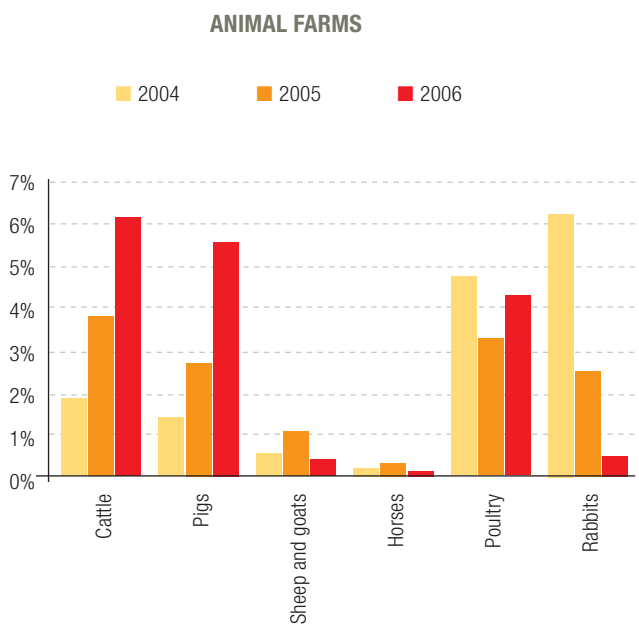
Food safety

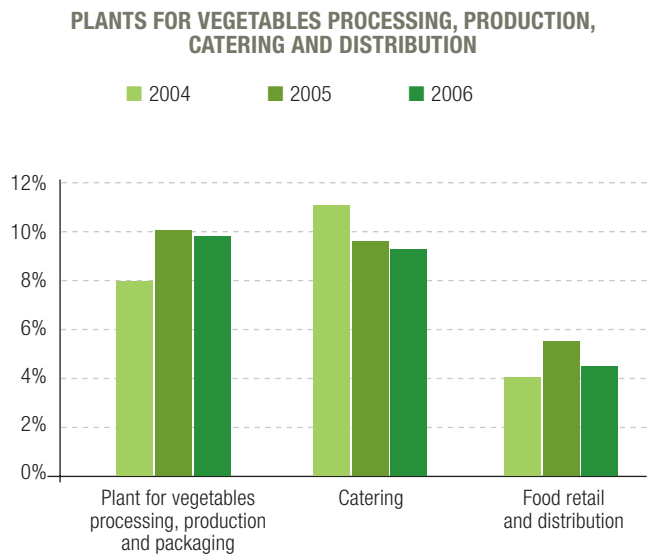
Local Health Trusts control food safety over the entire pathway: from primary zootechnical and agricultural production to transformation plants and food retail companies.
In the 2003-2006 period, more irregularities were found in cattle and pig farms, as inspections of animal health were intensified in accordance with new regulations of the European Union.
Inspections increased also for egg related production and consequently the number of irregularities, following the 2004 national public health emergency due to contaminated baked products.
Systematic inspections are also carried out in plants for processing milk and dairy products, in particular after the discovery in 2003 of aflatoxins in cattle feed and milk. The situation is already under control.
Inspections to verify in particular the correct use of pesticides and fertilizers are carried out in farms.

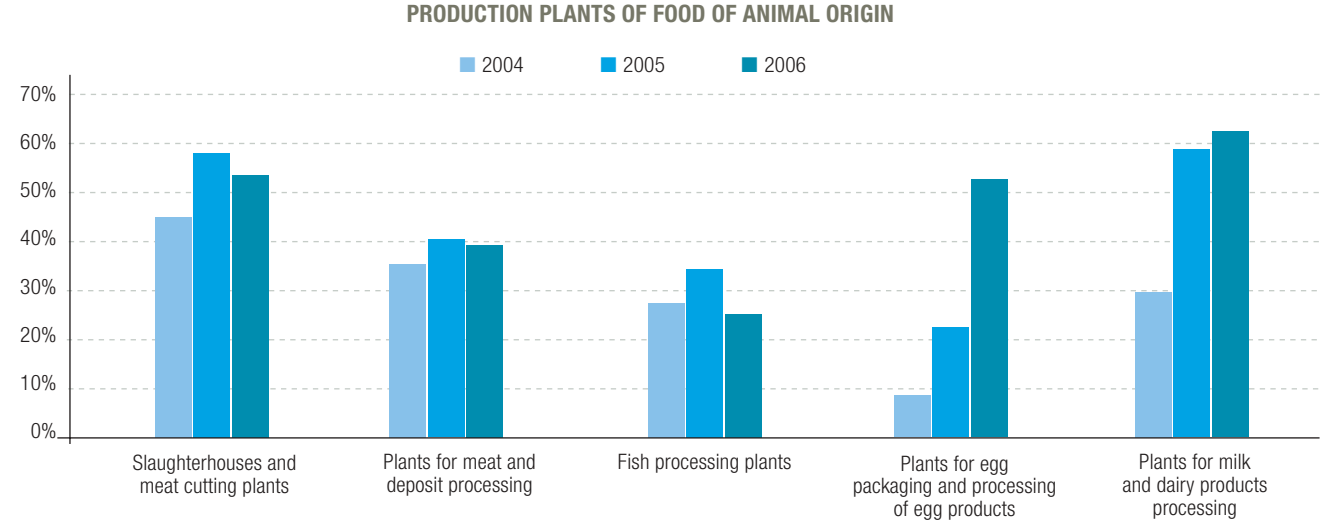
INSPECTIONS IN PLANTS FOR FOOD PROCESSING, 2006

Plants	No. of plants	No. of inspections	No. of irregularities
Cattle farms	9,862	68,811	819
Pig farms	3,559	30,381	199
Sheep and goat farms	3,012	4,414	12
Horse farms	5,719	12,596	7
Poultry farms	3,874	11,462	167
Rabbit farms	697	1,565	3
Slaughterhouses and meat cutting plants	483	50,391	255
Plants for meat and deposit processing	11,154	47,444	446
Fish processing plants	216	5,519	54
Plants for egg packaging and processing of egg products	44	314	23
Plants for milk packaging and dairy products processing	878	9,977	553
Plant for vegetables processing, production and packaging	10,675	1,411	1,069
Catering	37,096	6,713	3,463
Food retail and distribution	14,673	1,548	654

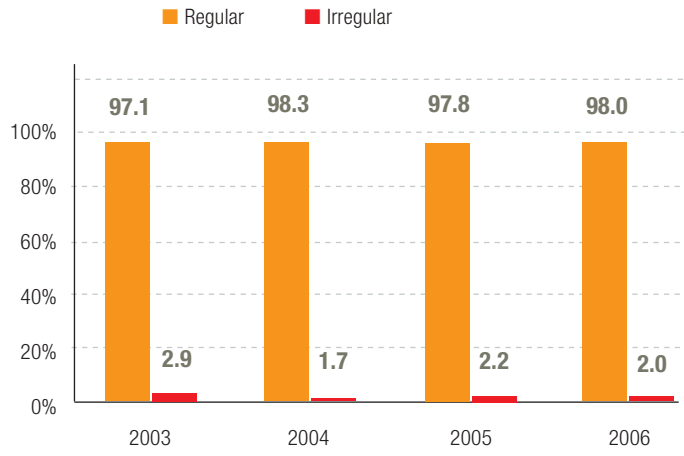
IRREGULARITIES FOUND IN FOOD INDUSTRIES, 2004-2006 (%)



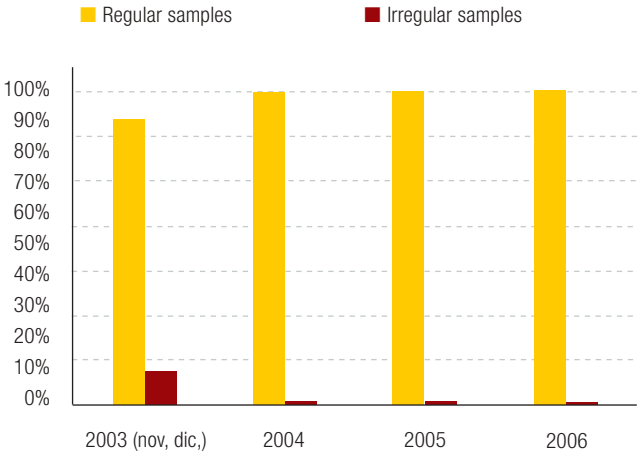




INSPECTION OF PHYTOSANITARY PRODUCTS (pesticides, fertilizers), 2003-2006



INSPECTION FOR AFLATOXINS IN FEED, 2003-2006



Region-University research program

According to Regional Law no. 29/2004, the Regional Health Service has not only a role for care but also for research and education.
A new joint three-year (2007-2009) Region-University research program was activated for enhancing the role of the University Hospital Trusts and is accompanied by a large involvement also of the Local Health Trusts and health personnel and by the development of centres of excellence and professional networks.
The Region is investing 30 million Euros, of which 70% for innovative research, 25% for clinical governance and 5% for training for research and creation of research networks. The funds, promoted with specific tenders, are aimed at:

- contributing to the development of centres/groups of excellence capable of designing and producing technologies/instruments useful for the healthcare activity of the RHS (innovative research), with particular reference to transplants, oncology, advanced diagnostics, neurosciences;
- activating, with similar aims, a special common course of activity in the field of regenerative medicine;
- acquiring knowledge about the benefit-risk profile of technologies and interventions in the entry stage, or already in use, in clinical practice, but for which essential information about the appropriate manners of use is missing;
- encouraging the development of professional networks also capable of doing research (both controlled evaluation and observational) on the most relevant organizational and healthcare questions.

In this phase, a strong designing, orienting and planning role is played by the Departments and by the Boards of Directors of the University Hospital Trust, in which the integration between University and Regional Health Service is particularly relevant.
The selection of the projects follows different stages depending on the degree of complexity of the proposals and its duration, and is supported by Italian and foreign referees. They can intervene in the initial phase to help in adjusting project proposals as well as in the evaluation of complete proposals.
The evaluation of the first cycle of projects for all three areas is going to be completed by the end of 2007.
The Regional Healthcare Agency, which has the role of scientific and operational coordination of this program, together with the General Direction for Health and Social Policies of the Regional Government, is responsible for activating and monitoring the projects, with the supervision of a specially instituted Committee for the program.
More information on the Region-University research program is available on the website of the Regional Healthcare Agency: **http://asr.regione.emilia-romagna.it/**

Research and innovation program (PRI-ER)

A special program (PRI-ER) was also activated in 2005 to support Health Trusts in the development of research and innovations functions as systematic and continuing ordinary activities.
The main purpose is to promote research for the timely transfer of clinical-organizational innovation to the structures of the RHS, with the intention of transforming organizations and personnel from participants to protagonists of a process in which research and innovation are an integral part of the system, and transforming elements of the organization and care management.
Particular attention is given to innovative healthcare technologies, from health interventions to organizational methods, which require further study of their efficacy, potential organizational impact and relative costs in order to plan their timely adoption and appropriate diffusion.
PRI-ER organizes its activity by themes in specific multidisciplinary work groups. PRI-ER also has a supporting infrastructure coordinated by the Regional Healthcare Agency and formed in collaboration with experts from the Health Trusts, and is mainly concerned with the activities of:

- Local ethics committees, to compare and discuss their operational methods and identify critical points in safeguarding aspects that are ethical and significant for research;
- Boards of Directors of Health Trusts, already engaged in documenting the research activities carried out, to plan actions aimed at developing research capacities and governance functions.

A first census of research activities, carried out in the 2002-2004 period, was completed to characterize and quantify the actual commitment of the Health Trusts. The results were published in Dossier no. 144 of the Regional Healthcare Agency and must be considered as an initial contribution to the construction of the infrastructure for research in the Regional Health Service.
The projects started with the PRI-ER program cover various areas:

- oncology: innovation in radiotherapy; appropriate use of oncology drugs, follow-up of patients;
- cardiology: medicated stents or bypasses in patients with multivessel coronary disease;
- cerebrovascular area: integrated care for stroke patients;
- high cost diagnostics: use of PET in oncology; use of multilevel CT scan in coronary disease;
- risk of infection: reduction of mortality rate for severe sepsis.

Many of these projects are developed in collaboration with other Regions in the context of national programs financed by the Ministry of Health (2006 National Research Program for Health; 2007-2009 Special tender for research in oncology) and by the Italian National Drug Agency (2006 Tender for research in pharmaceutical area).
The project areas of research-intervention will be extended to additional important themes for health services and patients, such as mental health and primary care.
PRI-ER is financed by a special fund for innovation that was established with regional resources and the contribution of other subjects including private pharmaceutical companies that subscribe to the general objectives.
More information is available on the website of the Regional Healthcare Agency: **http://asr.regione.emilia-romagna.it/**

Programs for prevention, surveillance and risk management in healthcare

Programs for prevention, surveillance and risk management in healthcare

Patients incur risks when they come in contact with the environment in which care is provided. These risks pertain to the facility (for example, a fall) as well as are linked to care (for example, an organizational misunderstanding, equipment malfunctioning or human error).

Since 1999, Emilia-Romagna has included attention to patient safety among the priorities of the Regional Health Plan, and since then many training, surveillance and improvement initiatives have been developed.

These initiatives include:

- a regional system for gathering reports and complaints from 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;
- techniques that analyze critical points of care processes or study the dynamics of adverse events to evidence critical points to be reviewed;
- introduction of practices and procedures that have proven effective in reducing known risks, such as the introduction of systems for the reliable identification of patients that need surgical operations or transfusions, antibiotics before surgery, selection of patients at risk of falling;
- increased attention to relations with patients, to the point of acquiring the capacity for resolving conflicts and a more respectful management of the administrative aspects of managing accidents, with agreement on guidelines useful to handle the matter in a comprehensive manner, integrating both static and dynamic aspects of care quality (defined by structural and organizational requirements, respectively) as well as methods to control adverse events.

The initiatives that were developed, together with guidelines prepared and spread in 2006, make it possible now to confront the problem, involving the various structures in the Health Trusts that are engaged in safety, care delivery, communication with the public, training, and management of the economic aspects of damage.

Program for surveillance and control of infections correlated with care

The program is based on the knowledge that health care entails risks, but that it is necessary to reduce avoidable risks by promoting safe healthcare practices and continuous evaluation of quality.

The two main objectives are:

- to build surveillance systems that are useful for monitoring this phenomenon;
- to promote the adoption of healthcare measures that have proven effective in reducing the risk of infection transmission during care through guidelines, intervention plans and training of personnel.

The program regards not only public and private hospitals, but also residential facilities, and is based on a network system coordinated at regional level.

The program provides that, in order to be authorized, all healthcare facilities must prepare an operational plan for infections prevention and control with specific protocols and procedures. In addition, high-risk hospital areas, such as surgery and intensive care units, must activate infection surveillance systems to evaluate the outcome of the interventions undertaken. Following the regional guidelines, all Health Trusts have instituted an Infection Control Committee and have identified physicians and nurses to coordinate these activities. The Committees are connected in a regional network and meet periodically to compare experiences and problems and to find solutions.

Active surveillance systems include:

- epidemics and sentinel events. Ongoing at regional level since 2006, this system provides for rapid reporting of sentinel events in healthcare and social care facilities and in the general population;
- surgery and intensive care. Standardised procedures were prepared at regional level. Surveillance in these areas is considered a necessary requirement for accreditation by the Regional Health Service;
- surveillance in laboratories. Activated on an experimental basis in 2004 and fully operational since 2006, this regional surveillance system is based on the transmission of data to a regional center every six months by local hospital laboratories with a high volume of microbiological activity.

For the promotion of safe healthcare practices, specific work groups have been instituted and guidelines or policy documents were elaborated for the following areas: general aspects of hygiene; infections in surgery, in intensive care, in endoscopy, and in residential facilities for the elderly; epidemics and clusters; laboratory surveillance.

Furthermore, conferences, seminars and training courses are organized at regional level for personnel involved in potentially risky healthcare processes.

Specific projects aim at evaluating the impact in health terms of improvement actions in particular care contexts: prevention of infections in residential facilities for the elderly (in 3 Local Health Trusts); correct reprocessing of endoscopes (in all Health Trusts); safe nursing practices in intensive care (in all Health Trusts); promotion of hand hygiene in the context of the World Health Organization campaign “Clean care is safe care” (in 12 Health Trusts).

The programs are coordinated by the Regional Healthcare Agency: **http://asr.regione.emilia-romagna.it/**

Plan to reduce waiting lists for outpatient specialist care and planned hospital admissions

A Regional Plan for reduction of waiting lists for outpatient specialist care (visits and diagnostic) and admissions (in specific areas) was approved by the Regional Government (Resolutions no. 1532/2006 and no. 73/2007), thus implementing national standards.
As required by the Regional Plan, the Local Health Trusts, together with the University Hospital Trusts, presented the local implementation plan which had previously been submitted to the respective Health District Committees and to the Social and Healthcare Territorial Conferences*. They are also committed to creating a stable relationship with the citizens and their representatives, not only to supply correct information on the decisions taken, but above all to create a firm and systematic relationship for analyzing results and simplifying access.

Areas of intervention for outpatient specialist care

The areas of intervention of the Plan on outpatient specialist care concern 41 types of procedures grouped in oncology, cardiovascular area, mother-child health and geriatrics, and 5 types of specialist visits of great impact: dermatology, ophthalmology, otolaryngology, orthopaedics and urology.

Areas of intervention regarding planned hospital admissions

For inpatient and day hospital/day service admissions, the areas of intervention regard oncology (surgical operations, chemotherapy), cardiology (aortocoronary bypass, coronary angioplasty, carotid endarterectomy, coronarography) and geriatrics (hip replacement and cataracts). They also concern specific medical procedures: lung surgery, colon surgery, tonsillectomy, percutaneous liver biopsy, vein ligation and stripping, haemorrhoidectomy, repair of inguinal hernia and decompression of carpal tunnel.

Objectives regarding waiting lists for outpatient specialist care

In Emilia-Romagna, monitoring of waiting lists for outpatient specialist care began in 1999 and covered – constantly through the years – 25% visits and 17% diagnostic tests. Care was delivered within the prescribed waiting times in 80% cases.
The Plan reconfirms maximum waiting times for delivering care: 24 hours for urgent care, 7 days for deferrable urgent care, 30 days for first specialist visits, 60 days for first-access instrumental diagnostics.
In particular, for the 41 types of outpatient specialist care targeted for intervention, the Regional Plan specifies that maximum waiting times must be respected in at least 90% cases.
In their executive plans, the Health Trusts identify the territorial context within which such waiting times must be respected. The same executive plans also contain specific pathways for complex specialist care or care that is delivered in centres of excellence.

Objectives regarding waiting lists for planned hospital admissions

The Plan identifies the areas that group together the types of care to be delivered within maximum waiting times in at least 90% cases as objects of monitoring: oncology (including surgery for breast, prostate, colorectal and cervical cancer and chemotherapy), cardiovascular area (including aortocoronary bypass, coronary angioplasty, carotid endarterectomy, coronarography) and geriatrics (including surgery for cataracts and hip replacement).
Also for admissions, the Plan extends the monitoring system that was already active in Emilia-Romagna since 2000.

The system for booking outpatient specialist care

The offer of outpatient specialist care is made available in each Health Trust through a computerized central booking system: CUP (unified booking centre). CUP provides information about availability of appointments for care and guarantees a system based on transparency and efficiency.

* Social and Healthcare Territorial Conferences are composed by all the mayors of the Municipalities of the area corresponding to a single Local Health Trust, usually a province. They play a central role in promoting and evaluating social and health policies and programs.

2006-2008 Regional Plan for Prevention

The premises for the 2006-2008 Regional Plan for Prevention are contained in the National Agreement between the State and the Regions that was signed in March 2005 and is aimed at defining organic interventions in four areas:

- prevention of cardiovascular disease (including prevention of diabetes and obesity complications),
- oncology screening,
- vaccinations,
- prevention of accidents in everyday life and in workplaces.

As foreseen by the National Agreement, the Plans elaborated by the single Regions were discussed at national level with the Centre for disease prevention and control (Ccm) of the Ministry of Health and the Regions, that has been assigned the functions of coordination and review.
The Plan approved by the Regional Government of Emilia-Romagna (Resolutions no. 1012/2005 and no. 426/2006) contains projects regarding:

- oncology screening,
- vaccinations,
- prevention of diabetes complications,
- diffusion of measures for evaluating cardiovascular risk,
- obesity,
- traffic and home accidents,
- occupational accidents,
- prevention of relapses in cardiovascular patients.

The institutional process of elaborating, adopting and evaluating the Regional Plan for Prevention was complex and outlines the importance of the project and the commitment of the Regional Health Service.
It represents the end point of a long-term strategy that guarantees activities for disease control and prevention, and includes strategies for health promotion. These are based on two fundamental considerations: various factors are important in determining health (from genetic and biologic to environmental, social, economic, to those relative to presence or lack of services, to individual life styles which in turn are strongly influenced by social-economic conditions); to protect health and to overcome inequalities, contributions from many subjects are necessary, also outside the health services.
The implementation of the single projects in the Plan for Prevention requires, as already experienced by the Health Plans carried out in Emilia-Romagna in the years 2000-2004, the active involvement of institutions, local communities, schools, firms, associations, labour unions, mass media and single citizens in the processes.

Program for the Regional Fund for non self-sufficient persons

The 2007-2009 Program for the Regional Fund for people requiring help with daily activities (non self-sufficient persons) was approved by the Regional Government (Resolution no. 509/2007).
The resources allocated by the Region for 2007 – 311 million Euros – are assigned exclusively to the development and qualification of an integrated network of flexible services, evenly distributed in the region and centred on the needs of non self-sufficient people and of caregivers.
The Program was elaborated together with the Regional Inter-institutional Directing Committee for Welfare (where Region and local authorities work together on social and health policies) and was submitted to the discussion and judgement of social subjects on aims, priorities and management of resources.
It is based on the strategies of the new Regional Social and Healthcare Plan. It represents an important part of the development process for the new welfare: Region, local authorities, Local Health Trusts, non profit organizations, volunteer associations, labour unions all accept a mutual commitment to create an integrated system of services.
The first priority identified by the three-year Program is direct and indirect support of home care, with the goal of strengthening services and providing support to the resources of each person, of the family network and the community to keep the person as independent as possible in his/her usual environment.

In particular, the areas of intervention include:
- development and re-organization of integrated home care (health care and social care);
- increase of care allowances for non self-sufficient elderly, with specific attention to those who do not receive an allowance for an accompanying person;
- qualification and regulation of family assistants by promoting their integration in the network of services;
- services of telephone emergency and assistance managed also with volunteers;
- temporary “relief” admissions in residential homes;
- support for informal networks of social solidarity (from “doorman” to social “custodian”);
- reduction of the individual contribution to the costs of social residential services (safe homes, assisted living residences, day centres).

The Program requires an annual plan of activities at Health District level, to be approved by the District Committee with the agreement of the Director of the District. The plan must take into account the indications of the Social and Healthcare Territorial Conference and the guidelines of the Region, and ensures discussion with social institutions, non profit organizations and social services management.

Program for reorganizing Public Trusts for Personal Services (ASP)

The reform of the Public Institutions for Assistance and Charity (IPAB) of Emilia-Romagna lies within the context of the reform established by Regional Law no. 2/2003, with due respect for the State and regional responsibilities defined by the 2001 constitutional reform. IPAB are public organizations, often originating many centuries ago, that arose as a "charitable" response to the needs for assistance of weaker sectors of the population.

In Emilia-Romagna, in the last years IPAB were transformed to adapt to the new and different assistance needs brought on by social-demographic development. However, they remained anomalous because they were not connected to any institutional level of government and to community participation. This led to the decision to transform the IPAB into the new Public Trusts for Personal Services (ASP), which retain a public legal status in the system of institutional and governmental responsibilities but also adopt regulations for changing public entities to private ones.

The process is included in the construction of a new regional and local welfare system based on principles of universalism, equity and solidarity, and capable of guaranteeing uniform and undeniable rights to citizens. The aim is to create a public network of social and health care, residential, semi-residential and home care services that is as homogeneous as possible throughout the region and that can strengthen its capacity for response, together with the services offered by the private sector.

The reform took into account and enhanced the characteristics of the complex health system and, in particular:

- the role of the Region to regulate and govern the system, in close collaboration with the system of local authorities (Municipalities and Provinces);
- recognition and enhancement of the role of the local authorities in defining and building the integrated system of interventions and services, expressed in planning social services activities, in a viewpoint that considers not only the single municipal territory but also a larger area, which normally coincides with the Health District.

Therefore, ASPs are public subjects that manage and deliver social and health care services foreseen by local Health District planning. Municipalities of a single District – constituting the Assembly of partners – perform policy and surveillance functions.

According to the regional planning, ASPs should be referred to a District area, though it is also possible to establish ASP at a sub-District level if this better responds to the local needs and organizational decisions.

The transformation process consists of the following stages:

- preparation of transformation plans by the Health District Committees;
- preparation of transformation specific programs by the IPABs involved in the establishment of the ASPs identified by the plans;
- presentation of requests for changing from public to private entity by the IPABs that think they fulfil the requirements and have chosen this pathway;
- regional evaluation of plans and statutes presented, and communication of evaluation outcomes to the concerned Municipalities and IPAB;
- formal establishment of ASPs by the Region.

In Emilia-Romagna there are 226 IPABs. Fifty of them no longer exist because they either were inactive for decades or made a specific request; 55 asked to become private entities; 121 requested to be transformed into ASP, but as a consequence of unifications or merging they will finally be 49. Three of these 49 were established at the beginning of 2007: ASP "Giorgio Gasparini" in Vignola (Bologna), ASP "Giovanni XXIII" in Bologna and ASP "Ad Personam" in Parma. The other ASPs will be established by the end of 2007.

Education and training in the Regional Health Service

Collaboration with the University

Education and training is an intrinsic function of the healthcare system meant for healthcare personnel through programs of continuing medical education (Ecm) and for students through collaboration with Universities in the region (Bologna, Ferrara, Modena, Reggio Emilia, and Parma) for post-graduate medical specialization schools and for graduate and post-graduate courses for the healthcare professions. In recent years, collaboration for University training has developed remarkably, in particular with the approval of a new agreement protocol between the Region and the Universities.
Furthermore, two Regional Observatories – one for post-graduate Specialist Medical Training and the other for the Nursing, Technical, Rehabilitative and Preventive Healthcare Professions – were created to monitor and promote the quality of training and the contribution of the Regional Health Service, starting from the University Hospital Trusts.

Continuing medical education

The first Italian program for continuing medical education, started in 2002 for all healthcare personnel, ended and the rules for the new program that will begin in 2008 are currently being prepared. The healthcare personnel involved in Emilia-Romagna numbered more than 61,000, including more than 46,000 employees of the Health Trusts, about 3,300 general practice physicians and about 550 paediatricians, plus medical specialists, employees of contracting private facilities, pharmacists and others.

In 2002, the Government of Emilia-Romagna started a regional program (Resolutions no. 1072/2002 and no. 1217/2004) with the establishment of a Regional Commission of experts and a Regional Council for Ecm in which representatives of the professional bodies could express their views. Between 2002 and 2006, more than 42,000 training projects for Ecm proposed by the Health Trusts were accredited at regional level and about 20,000 at national level.
These were mainly "residential" training events (courses, seminars, conferences), but also on-the-job training activities (training, participation in commissions, clinical audits, improvement projects, research projects) that have progressively gained greater importance. Some experimental programs in e-learning were also accredited.
The rules of the regional program do not permit the accreditation of training events directly financed (even partially) by organizations with commercial interests in the health care field, whether profit-making or non profit-making. Sponsorship of training activities, for example of a Health Trust, is possible only if it is for the general plan and not connected to specific events.

Emilia-Romagna was the leading region in a pilot project for the construction of a National Observatory on the Quality of Ecm. The project was financed by the Ministry of Health and included 9 other Regions.
Further information can be found on the website:
http://ecm.regione.emilia-romagna.it

NUMBER OF ON-THE-JOB TRAINING AND RESIDENTIAL TRAINING EVENTS ACCREDITED FOR ECM BY EMILIA-ROMAGNA REGION, 2002-2006

Hub & spoke model for hospital care

For their low frequency or for the complexity of care, high specialty functions are offered only in few hospitals, where patients with particular clinical conditions are transferred from local hospitals.
Planning for high specialty centres is developed at regional level. The organizational model adopted (hub & spoke) is based on the connection between hubs (high specialty centres) and spokes (local hospitals). Access to hub centres can only be requested by specialists at local hospitals.
This model was defined in the Regional Health Plan 1999-2001 and refers to specific disciplines.
The disciplines already implemented are: heart surgery and cardiology, neurosciences, transplants, severe burns, perinatal and paediatric intensive therapies, rehabilitation high specialties, emergency-urgency system, transfusion system and blood plan, rare diseases, genetics.
The regional planning is now concentrating on oncology and high complexity laboratory diagnostics.

118 emergency system

The 118 emergency system of Emilia-Romagna deals with a high number of aid interventions (more than 400,000 in 2006) and with cases at different levels of complexity up to maxi emergencies.
The system is composed of:

- 9 operational centres;
- a network of 305 stations for ambulances and equipped cars with physician and nurse;
- 4 bases for helicopter ambulances.

The operational centres work 24 hours a day; a nurse answers the calling citizen according to standard procedures and protocols with a medical supervision. On the basis of information collected during the phone call, the nurse decides what rescue vehicle should intervene (ambulance, helicopter ambulance, equipped car with physician and nurse).
The calls for health interventions arrive to one of the 9 operational centres and are quickly sorted out to the network of available rescue vehicles; once reached the intervention location, the rescue team decides the best referral hospital on the basis of care needs.
The network of vehicles is directly managed by the Health Trusts, or – with specific agreements – by voluntary associations, such as Italian Red Cross, and by private organizations.
According to the agreed standard, 118 system has to guarantee that rescue vehicles arrive within 8 minutes in the urban areas and within 20 minutes in the rural areas.
The 118 emergency system can actually rely on advanced computer and radio-communication systems that, in some areas, can locate the position of the rescue vehicle.
Recently, Emilia-Romagna Region – first in Italy – has implemented a new radio network with digital technologies that will integrate communication between 118, City Police and Civil Defence Department.
The regional 118 emergency system has its own website: **http://www.118er.it/**

Hub & spoke networks for diagnosis and care of rare diseases

By definition, “rare diseases” affect only small groups of people (fewer than 1 in every 2,000 inhabitants per year).
A National Network for Rare Diseases and a list of about 600 rare disorders classified by pathological branch was established in 2001 at national level with a Ministerial act. Consequently, the Emilia-Romagna Region instituted the Regional Network for Prevention, Diagnosis and Treatment of Rare Diseases.
The Network consists of Centres devoted to specific pathologies.
At present, 4 networks have been activated:

- haemophilia and congenital haemorrhagic diseases;
- hereditary haemolytic anaemia;
- Marfan syndrome;
- glycogenosis.

Beginning in June 2007, an information system for rare diseases – based on the network connection among authorized Centres and Departments for Primary health care – was implemented. Patient’s data input in the system will allow the creation of a Regional Register of rare diseases.
A regional technical group has been charged with consulting about specific problems also related with particular assistance benefits.

HUB & SPOKE NETWORKS FOR THE MARFAN SYNDROME

HUB & SPOKE NETWORKS FOR HEREDITARY HAEMOLYTIC ANAEMIA

HUB & SPOKE NETWORKS FOR GLYCOGENOSIS

HUB & SPOKE NETWORKS FOR CONGENITAL HAEMORRHAGIC DISEASES

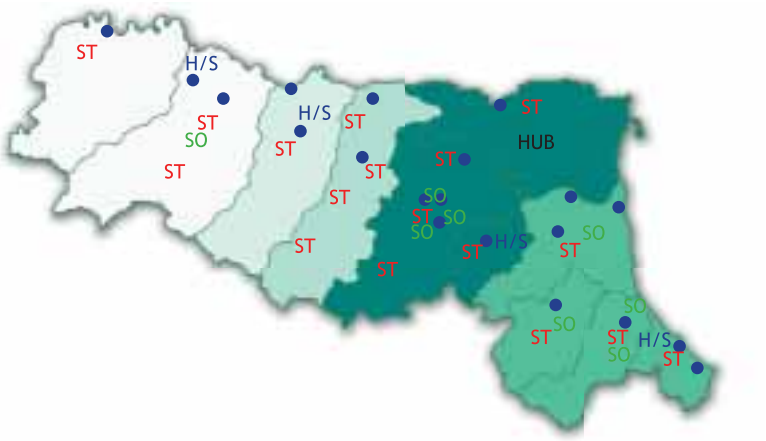
H = Hub centre
S = Spoke centre

Hub & spoke network for major traumas

In Emilia-Romagna every year 2,000-2,500 major traumas are estimated to occur: head traumatism registers the highest incidence (it concerns more than 50% of all major traumas); it is followed by major abdominal injuries, thoracic traumas and rachis myelin injuries.
To respond to the specific care needs of people with major traumas, a network of therapeutic services was realized. It identifies 3 Integrated Systems of Care for Traumatized Patients (SIAT) for the whole region: one for Romagna Area (Bufalini Hospital in Cesena), one for eastern Emilia (Maggiore Hospital in Bologna) and one for western Emilia (University Hospital Trust of Parma – Maggiore Hospital). For each SIAT a hub Trauma centre was identified, connected to the Emergency Departments of the hospitals that are integrated in the system (spoke).
In October 2006, a regional database of major traumas was implemented to monitor paths and outcomes of these patients and to evaluate functionality and efficacy of the SIATs: data registered in the database come from the three SIATs and the hub and spoke centres.
To promote diffusion and sharing of technical and scientific information to all the professionals involved in different ways and moments in the first aid and care of traumatized patients, a project for a dedicated website is being elaborated: it will represent a first experimental informative and training opportunity and it will then be used as a network among professionals.
Internet website:
http://asr.regione.emilia-romagna.it/trauma

Hub & spoke network for severe acquired brain lesions

A severe acquired brain lesion is a brain damage (of traumatic or other origin) that provokes coma and/or sensomotorial, cognitive or behavioural disabilities.
Severe acquired brain lesions represent a relevant health and social problem for their high incidence and prevalence (about 1,300 people every year in Emilia-Romagna, often youths and adults in work age); for the many complex health sequelae (nearly 300 people/year in Emilia-Romagna need further hospitalization for rehabilitation after the acute phase); for the emotional and material impact on family life; for the social consequences for school or job reintegration; for the amount of health and social resources needed.
To respond to the specific care needs of people with severe brain lesions, a network of rehabilitative services was realized, that includes: 1 Complex unit for severe brain lesions (hub) at the University Hospital of Ferrara; 4 Rehabilitation medicine services (H/S) for rehabilitation after the acute phase, that work with the hub centre; 8 Rehabilitation medicine services (SO) where patients are hospitalized after the acute phase, waiting to be transferred to hub/spoke or hub centres; 20 Rehabilitation medicine services for acute patients (SA); 17 Rehabilitation medicine services for de-hospitalization and reinstatement (ST).
In 2004, a regional database of severe acquired brain lesions (GRACER) was implemented at the hub center at the University Hospital Trust of Ferrara to evaluate rehabilitation and needs, patients' paths, outcomes reached at the various centres of the network.
Internet website: **http://www.gracer.it**



Regional hub centre: **HUB**
Hub/spoke centres: **H/S**
Hospital spoke centres: **SO**
Territorial spoke centres: **ST**

The reorganization of Emergency Rooms

Full accessibility and correct use of Emergency Room facilities in a multidimensional logic is a crucial problem. The Regional Resolution no. 264/2003 gives indications to Health Trusts to offer other care paths in alternative to Emergency Room through a better use of existing structures and the implementation of new solutions. Some interventions were identified to improve alternative paths in local Health Districts (Care Continuity Outpatient Departments, Primary Healthcare Units with longer opening hours, specialist outpatient treatment when requested by the general practice physician or paediatrician) and in hospital (nurse triage, intensive short observation, complex outpatient paths and measure of individual participation to costs).

The introduction and reinforcement of the triage function in Emergency Rooms, as established by a national agreement on Guidelines on organizational and functional requirements for emergency-urgency facilities, is one of the most efficacious measures to improve accessibility and to treat patients according to definite criteria that allow an intervention priority list. The attribution of color codes defines the gravity of a pathologic condition and establishes the urgency of treatment and its priority. Standardized implementation of triage techniques was enhanced through the use of specifically trained nurse personnel, as indicated in the regional Guidelines for a homogenous classification of access color codes.

Expenditure sharing measures (Regional Resolution no. 264/2003), that anticipate the introduction of ticket for emergency treatments at national level, are meant to improve appropriateness in accesses, defining the so called white codes as non urgent treatments, that can be considered as normal outpatient treatments but are instead offered at Emergency Rooms.

At the same time, some indications were elaborated in collaboration with professionals to guarantee a homogenous classification of white codes (either in accessing or leaving the Emergency Rooms), in order to favour greater equity and more appropriate use of these facilities.

Regional guidelines on the activities of intensive short observation (OBI) were also approved (Resolution no. 24/2005). The efficacy of this organizational solution to make hospitalization activity more appropriate as far as non programmed accesses are concerned, is based on the possibility for Emergency Room personnel to use appropriate diagnostic and therapeutic instruments and to control the evolution of patient's clinical picture for a short period before deciding to hospitalize, when hospitalization is not clearly necessary from the situation of the person accessing the Emergency Room.

In the past years some intra-hospital paths for critical patients were also elaborated with 118 emergency system personnel and specialists, in particular for traumas, heart attacks and strokes, adopting evidence based models from international experiences.

In 2006 accesses to Emergency Room were 1,774,416 (+2.5% as to 2005); hospitalization was necessary for 14.4% of these accesses (256,280). Accesses in intensive short observation were over 50,000, with an observation average length of 16 hours; the efficacy of a stricter filter amounts to 9,000 fewer hospitalizations than the expected number.

EMERGENCY ROOM TREATMENTS, 2005-2006

	2005		2006	
Health Trusts	No. of accesses	% hospitalization	No. of accesses	% hospitalization
Local Health Trust of Piacenza	108,006	14.7%	111,512	13.9%
Local Health Trust of Parma	36,529	13.7%	36,712	13.8%
Local Health Trust of Reggio Emilia	89,186	11.2%	91,390	10.6%
Local Health Trust of Modena	181,228	12.4%	195,424	13.3%
Local Health Trust of Bologna	222,194	15.3%	219,226	16.0%
Local Health Trust of Imola	63,092	13.5%	64,790	12.5%
Local Health Trust of Ferrara	84,132	14.1%	88,907	13.6%
Local Health Trust of Ravenna	169,834	14.1%	175,509	13.5%
Local Health Trust of Forlì	57,516	12.5%	57,910	13.1%
Local Health Trust of Cesena	77,447	16.4%	80,478	15.8%
Local Health Trust of Rimini	121,901	13.1%	122,003	12.8%
University Hospital Trust of Parma	77,557	20.7%	79,723	19.3%
Hospital Trust of Reggio Emilia	86,801	14.1%	90,189	13.8%
University Hospital Trust of Modena	103,228	16.6%	106,116	12.5%
University Hospital Trust of Bologna	133,362	19.9%	135,958	19.0%
University Hospital Trust of Ferrara	73,302	23.3%	73,759	21.7%
Rizzoli Orthopaedic Institutes Research Hospital of Bologna	44,904	5.3%	44,810	5.4%
Total	**1,730,219**	**15.0%**	**1,774,416**	**14.4%**

Organization of the Health District

The Health District guarantor for the Essential Levels of Care

Regional Health Service reorganization according to the Law no. 29/2004 and the subsequent regional guidelines for the Health Trust's Deed, gives the Health District the role of complete guarantor of the Essential Levels of Care delivery. This means that the District is responsible for planning and evaluating health care provided to citizens. Planning and appraisal are peculiarities of the new role of the Health District, not so much in terms of delivering services, but more of ensuring high-quality health care. In the new organizational model, there is a clear distinction between subjects providing health services and subjects identifying the necessary ones and the way different provisions form a personalized and continuous service.

Reorganization of territorial Departments

Territorial Departments of Local Health Trusts (Primary Healthcare, Public Health and Mental Health Departments) also underwent reorganization.

The Department of Primary Healthcare redefines its structure by hinging on the Primary Healthcare Unit: the Unit gathers services provided by general practitioners, paediatricians, nursing personnel, obstetricians and other professionals working in the territory, in order to ensure health care planning as regards chronicity and access to specialised health care provided by different Departments of the Regional Health Service.

This reorganization aims at integrating professionals operating within the Regional Health Service in the trust organization. Their integration occurs:

- by identifying opportunities for their participation in forming health care policy affecting patients;
- by harmonizing their professional approach with the regional health care orientations.

These are old objectives but the new rules give operative instruments to put them into practice.

Primary health care is also provided by other territorial Departments different from Primary Healthcare. They also underwent reorganization. In addition to the traditional psychiatric approach, the Department of Mental Health aims at favouring mental health preservation and recovery (as well as rehabilitation), by enhancing internal integrations (i.e. addictions or child neuropsychiatry) or external integrations by supporting general practitioners in handling paediatric mental disorders ("G. Leggieri" Program).

Also the Department of Public Health was reorganized to provide health care in cooperation with other Departments. The new role played in the fields of screening, supporting the Health District planning, managing infective emergencies are examples of this reorganization: all these aspects are managed in cooperation with clinical competences found at hospital level.

The new European Union directives require also a change in the role of public health professionals, shifting toward a more responsible level and with larger interprofessional collaboration.

Health District as social and health planning field also for the non self-sufficiency Fund

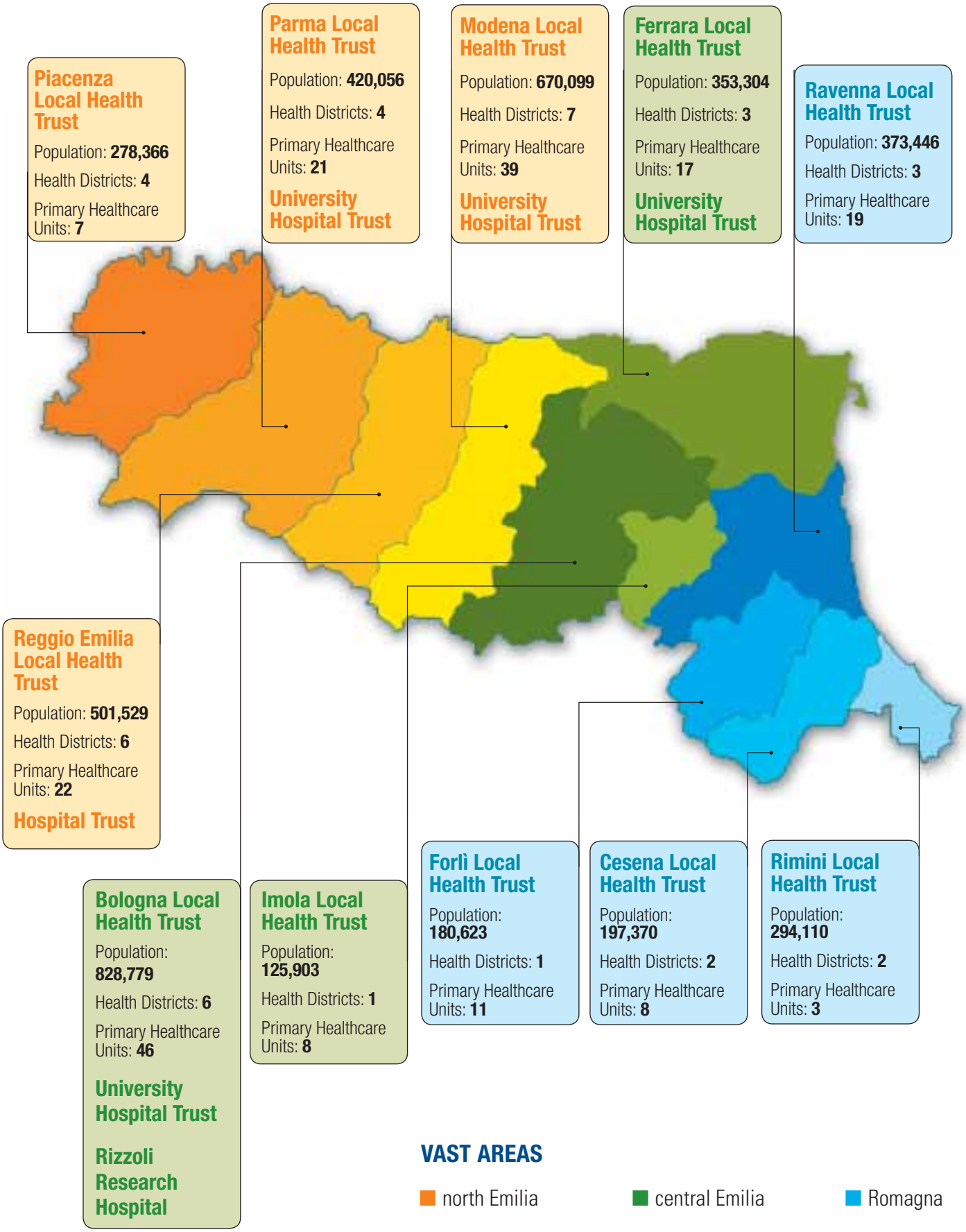
One of the main tasks of the Health District is ensuring appropriate health care to citizens, but also the social planning will be integrated. District planning is approved by the District Committee (consisting of mayors of Municipalities present in the area), together with social planning, including actions related to non self-sufficiency.

This integrated planning activity will start in 2008 according to new Regional Social and Healthcare Plan, where the unification of social and health planning activities is clearly foreseen. Furthermore, the Regional Fund for non self-sufficiency is negotiated and discussed with all the involved subjects (Municipalities, Local Health Trusts, Public Trusts for Personal Services, non profit organizations, etc.) within the District framework to settle and provide health and social interventions in accordance with territorial needs and peculiarities.

In Emilia-Romagna Region there are 39 Health Districts and 201 Primary Healthcare Units.

HEALTH TRUSTS, VAST AREAS AND HEALTH DISTRICTS IN EMILIA-ROMAGNA

2006



Agreement with general practice physicians

On the basis of a national agreement, a contract between the Region and general practice physicians' organizations was adopted in October 2006. The main goal is to allow these physicians to work at best, connected with the Regional Health Service, to reinforce and simplify access to services, to guarantee care appropriateness and continuity.
The regional agreement establishes new organizational procedures and instruments that general practitioners (3.270 on December 31, 2006) can use.
In particular, after years of experimentations that fostered collaboration between general practice physicians, local health services and hospitals, the agreement has defined a new and precise organizational model, according to which general practitioners are fully integrated in the organization of Health Trusts and mainly of Primary Healthcare Units, which are the cornerstone of primary care and the link to other health and social services.
The new organizational model provides for a gradual lengthening of opening hours for outpatient facilities (also through the development of "group medicine" and network with Primary Healthcare Unit), from a minimum of 7 hours per day till 12 hours per day whenever necessary. This implies also wider chances of care from the general practice physician, for example for urgent problems that do not require going to Emergency Rooms (the so called "white codes"), while the physician' fiduciary role with the patient remains fundamental and privileged.
With such an organization, the general practitioner is more integrated with the other professionals of the Health District for the coordination of clinical activities, of care in social and health care residences and in particular of home care to chronic patients.
The Sole Project (online healthcare), which is a telematic network for general practice physicians, has gradually extended (nearly 1,000 are already connected, the others will be by 2008) with both other Health Service physicians to share information on the patient, safeguarding his/her privacy, and with Health Trusts for reports and treatments requests. The Region is supplying the hardware and the software for the project.

Outpatient day service

The outpatient day service represents an organizational and operational model adopted in both hospitals and territorial and outpatient facilities.
At the outpatient day service clinical diagnostic and therapeutic problems are treated, that need integrated and complex multiple procedures, that do not require medical or nurse surveillance or examination for the whole period of single accesses.
The aim is to limit the number of accesses and to reduce the time for getting a diagnosis.
The service modifies the approach to health problems, putting forward a new healthcare model, that is alternative to hospitalization in terms of costs and efficacy.
It also changes procedures for treatment delivery, by concentrating treatments and reducing the number of accesses. In this way, responsibility for the patient starts in the outpatient structure and response times to complex clinical problems are improved. This change is possible also thanks to technological innovations that permit the execution of complex diagnostic and therapeutic treatments in outpatient offices, while keeping the same level of efficacy as similar procedures performed during hospitalization.
In order to implement the service, the simultaneous presence of different specialists in the structure guarantees a multidisciplinary response to the patient's clinical problem.
Medical interventions, diagnostic investigations and complex therapeutic treatments (invasive ones or with specific drugs) are carried out with the involvement of different specialist disciplines in the same location.

Sole Project (online healthcare)

The Sole Project (online healthcare) aims to establish a wide range of telematic services available to most of the health and social structures of the region, such as general practice physicians and paediatricians, nursing domiciliary care, emergency medical services, general outpatients' departments, hospices, mental health centres, family advisory health centres and municipal social services.
The purpose of the project is to create an integrated network at District and Trust levels and among Trusts, in order to simplify, accelerate and enhance the interface between citizens and health services, in particular based on the role of practitioners and paediatricians as clinical reference points and starters of healthcare pathways.

Purposes of the Sole integrated network

The most relevant purposes of the Project are:

- a more comprehensive knowledge by general practitioners and paediatricians of services supplied to their patients in different health services (in order to guarantee continuity of care);
- to ease communication and administrative procedures between general practitioners and paediatricians and Departments of Primary Healthcare;
- to strengthen access to virtual libraries to make the lifelong learning easier to enter and more attractive.

Actions for establishing the Sole integrated network

The key actions put forward are:

- the development of a common infrastructure among computer resources both within and among Local Health Trusts;
- the development of interfaces among offices of general practitioners and paediatricians, nursing staff, District health care centres, etc.;
- the network extension through the telematic connection with every physician's office;
- the development and testing of standardized protocols for communication and sharing of relevant clinical information in order to favour care activities and continuity of care.

Diffusion of the Sole integrated network

The Project has been tested in all the Health Trusts of the Region with about 200 general practitioners. At present, there are approximately 1,000 general practitioners connected to the Sole server through ADSL; by 2008 all practitioners will be connected.
Thanks to this connection, they can:

- send digital prescriptions to the Local Health Trusts, speeding up the medical examination booking process and making phone booking easier for any type of test;
- receive – for each prescription sent electronically – a virtual report and the electronic clinical record of the patient;
- receive the notification of entering and leaving hospital in real time for all patients;
- receive the notification about the choice/repeal of the patients as well as their personal data updating;
- share brief records on diabetic patients with specialists, emergency medical services and diabetes centres;
- share brief records on home care people with specialists, emergency service physicians and nursing staff.

According to the Privacy Act no. 196/2003, patients must consent to the use of their personal data for any transmitted and shared record. Health information collected in the Sole repository will constitute the Regional Clinical Event Index (Irec); physicians can consult the Index online for any of their patients and are therefore authorised to be acquainted with the patients' clinical history.
Internet website: **http://www.progetto-sole.it/**

Regional Observatory for Innovations in Healthcare (ORI)

Health care organizations are continuously spurred to change as a result of the need to acquire innovative diagnostic and treatment technologies, as well as to re-organize and revise the health care structure in order to answer the complex health care needs of their communities.

Both needs are signs of a lively and dynamic system that must be supported and guaranteed. Nevertheless, tendencies towards the change, in particular in the case of technologic innovation, should be supported to promptly discriminate false innovations from the true ones on the one hand, and need to be harmonized with the overall needs of the Regional Health Service on the other hand. This is necessary to guarantee the economic sustainability of the system; to prevent excess or duplication of services; to plan a coherent distribution of technologies to favour accessibility all over the region.

Therefore, the introduction of innovation should be coordinated without inhibiting changes but on the contrary by supporting them, assessing their impact and marking the boundary of the field of application.

The Boards of Directors of Health Trusts have been charged with taking care of the strategic development of the health care organization. These are the bodies in which research initiatives emerging from single health structures should be presented, discussed and selected according to the local strategic policy. The Boards of Directors are therefore responsible for the assessment of the relevance, suitability and impact of the adoption of specific innovations.

Over the last few months, the Regional Healthcare Agency launched the establishment of a Regional Observatory for Innovations in Healthcare (ORI). The latter is not a new body, it is rather a network consisting of personnel of the Regional Agency and expertise available in the Health Trusts, starting from their Boards of Directors.

In short, this initiative should:

- support a rationale adoption of new/innovative technologies in the RHS, through a process that explores their clinical, organizational, educational and research implications;
- identify relevant organizational innovations (i.e. significant changes introduced in single health care contexts to better meet patients' needs) and favour their diffusion to the whole system;
- scan the horizon, to identify earlier new potentially

Regional Observatory for Healthcare Technology

The Observatory for Healthcare Technology provides an overview of the current situation of biomedical technologies in use in Health Trusts. A regional group of experts is responsible for collecting and presenting data regarding the state of the art of healthcare technologies and it is supported by a network of reference points in the Health Trusts.

The database revision occurs every six months and the stream of this database is managed by a specific procedure that foresees 5 check phases and data conditioning. According to this procedure, data should be checked and validated at source by means of a special software provided to the Health Trusts and periodically updated; afterwards, data will be available for an in-depth analysis through indicators which allow the comparison of different regional contexts. Currently, the database consists of 780 biomedical equipment categories (from defibrillators to computed axial tomographs) equivalent to approximately 123,000 items, 106,000 of which belong to the Health Trusts, with a replacement value of 1 billion Euros. Besides the data stream of the biomedical technologies, the Observatory activity has been extended to medical devices.

Internet website:
https://worksanita.regione.emilia-romagna.it/sites/grts

Authorization and accreditation of healthcare, social and health, and social services

Healthcare services

The standards for authorization and institutional accreditation were defined by Emilia-Romagna Regional Government with Resolution no. 327/2004.

The basic criteria is to concretely apply the national Decree no. 299/1999, according to which authorization and accreditation procedures are to be linked and temporarily sequential.

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

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

In particular, the regional Resolution:

- defines authorization and accreditation requirements for health facilities and workers; these requirements are the result of a lengthy confrontation and sharing among professionals and experts working in public and private facilities;
- defines authorization and accreditation procedures, establishing modes and times;
- underlines the need of authorization also for dental surgeries and other professional offices used for diagnostic and/or therapeutic procedures that are particularly complex or dangerous for patients' safety;
- authorizes the beginning of institutional accreditation.

The verification process is active since September 1, 2004; many hospitals, hospices and public psychiatric facilities have been already visited.

In 2005, the accreditation process was extended also to outpatient facilities and dental surgeries (Regulations no. 293 and no. 294/2005).

In 2007, private outpatient and hospitalization facilities – used to integrate public services in order to meet regional citizens' requests for health treatments – are being verified for accreditation.

Social and health, and social services

The accreditation of social and health, and social services started in 2007.

The requirements and procedures for the authorization of these services were fully defined in 1991 and then updated with the regional Regulation no. 564/2000.

In 2007, the Regional Government (Regulation no. 772/2007) approved criteria and guidelines for the accreditation process in order to improve services quality, to offer citizens more choices and to establish a relationship model between public customers and producers based on service contracts. In this way, producers become more responsible and Municipalities and Local Health Trusts assume a more incisive government role.

New regional measures will be prepared to define procedures and requirements for various services and facilities, in particular for those included in the Regional fund for non self-sufficient people: for elderly people, such as nursing homes and day care centres; for disabled adults, such as residential and semi-residential socio-rehabilitative centres; home care for different needs.

The regional Regulation no. 772/2007 establishes that accreditation should depend not only on quality requirements of structures, services and producers, but also on the regional and local planning demands (Regions, Municipalities, Health Trusts).

Services that need to be accredited can be grouped in four care areas:

- elderly people (nursing home, day care centre, residential home, other residential facilities, home care);
- disabled elderly people (residential and semi-residential socio-rehabilitative centre, other residential facilities, home care, protected ateliers);
- psychiatric care (other residential facilities, social and healthcare residential facilities);
- care and living opportunities for minors and people just over 18 years of age (home care for disabled minors, other residential facilities).

Agreement between Region and private hospitals

The agreement between Emilia-Romagna Region and the Private Hospitals Associations (AIOP-ARIS) regulates the relationships both on the financial side (identifying maximum budgets for geographic areas and specific activities) and the qualitative one (determining aims to guarantee full integration among the structures involved in the general care network).
The agreement regulating the relationships concerns access to treatments, control of payments and other general aspects, and considers separately complex specialty activities, heart surgery, neurosurgery, psychiatric care and the other hospitalization activities.
For the first two typologies considered as complex specialties, the agreement establishes maximum regional budgets; for the other activities it establishes local budgets and a total regional budget for treatments offered to citizens not resident in the area where the facility is located.
To avoid any excess production, budget's predefined limit and penalty mechanisms are established through scalar tariff allowances.
Like the preceding ones, also the 2007-2009 agreement is an outline agreement, according to which Health Trusts and private hospitals can define service volumes and types in a more specific way.
Ten years after the implementation of the regional agreements system, there was an effort to redefine local needs through the direct involvement of Local Health Trusts: a new base was determined for budget definition, more realistic and more connected with the real use and integration level of private facilities.
As a consequence, the system of penalty annulment in case of attainment of defined aims – financed through a specific regional fund – is eliminated; but considering the actual use of the fund through the years, it is integrated in the budget.
The quality goals are updated and maintained, and they will affect penalty evaluations at the Joint Commission, a commission that evaluates penalty application and then certifies the final net turnover of facilities.
The agreement, that already allocates the total amount for the three years, represents a step forward toward a deeper integration of private facilities in the Regional Health Service and pushes toward a systematic development of connection paths with Local Health Trusts' services to implement protected discharges also from private facilities.

Vast areas of Emilia-Romagna

The "Vast areas" have been foreseen by the regional planning to encourage optimization of quality and efficiency of technical-logistic services or in the framework of care functions serving populations beyond the Local Health Trust border. Emilia Romagna is divided in three areas: the north Emilia Vast area, the central Emilia Vast area, and the Romagna Vast area *(see p. 52)*.

The north Emilia Vast area

The north Emilia Vast area (AVEN), active since 2005, was established by the Health Trusts of Piacenza, Parma, Reggio Emilia and Modena. They united and integrated their functions in the field of selection and purchasing of goods and services and in the logistic field, to further develop positive experiences of previous joint purchases.
The main field of intervention is about tenders to acquire medical goods – in particular drugs and medical devices – aiming at identifying new tender strategies and the strong involvement of the final users.
Thanks to the help and co-ordination of the Centre for the Evaluation of the Effectiveness of Healthcare (CeVEAS) located in Modena, some technical groups of experts were activated for defining drug selection criteria, carrying out specific evaluations and in-depth analysis and defining strict and shared tender strategies.
The results obtained for drug tenders were good, in terms of discounts, especially regarding drugs put in competition (therapeutic equivalence, presence of generics or more specialties per active principle). But the real added value is to be found in the large cultural prominence of the selection process and the clinicians' involvement and participation. This allows AVEN to plan specific initiatives to determine appropriateness of drug use, as well as initiatives to compare specific realities and thus improve clinical governance.
Also the range of medical devices acquired through AVEN is growing, and a "logistic of drug and medical devices" project – based on a centralized logistic Unit establishment – has been developed.
Additionally, AVEN activity is also represented by the sharing of common pathways for the various professionals involved in purchasing procedures (permanent multiprofessional groups) and in the identification of administrative and healthcare areas of integration (local therapeutic committees, CUP – unified booking centres, Sole Project, analysis of the organizational arrangements and of the healthcare pathways, analysis of the results of the hub& spoke networks, co-operation among Departments of the AVEN Local Health Trusts).
AVEN internet website: **http://www.aven-rer.it**

Central Emilia Vast area

The central Emilia Vast area (AVACE) includes the Health Trusts of Bologna (Bologna and Imola Local Health Trusts, University Hospital Trust of Bologna and Rizzoli Orthopedic Institute Research Hospital of Bologna) and those of Ferrara (Local Health Trust and University Hospital Trust).

The tasks of the Vast area are:

- yearly and long-term planning of procedures;
- reports of the achieved results;
- promotion of modernization projects;
- operative link with Intercent-ER*.

During 2005 and 2006, 69 tenders were held using a joint purchase system; common instruments for procedures management and a training program were developed.

Cost savings resulting from tender procedures have been particularly meaningful: equivalent to 8.9% of the total expenditure in 2005 and to 11.8% in 2006. In particular, the drug tender held in 2006, amounting to 66.5 million Euros, led to 8.6 million cost savings, equivalent to 12.9% of the total expenditure, if compared to the historical expenditure.

In 2007, tender planning widened the type of goods to be purchased: besides drug and other goods, health equipment will also enter this category.

AVACE internet website: **http://avace.ausl.bologna.it/**

* Intercent-ER is the regional agency responsible for managing goods and services purchasing on behalf of the Region, the Health Trusts and, on demand, the local authorities.

The Romagna Vast area

The Romagna Vast area (AVR) includes the Local Health Trusts of Cesena, Forlì, Ravenna and Rimini.

The systematic co-operation between the Social and Healthcare Territorial Conferences and the Health Trusts in the field of planning, organizing and managing functions and services is a peculiarity of AVR.

The planning is based on the following principles:

- avoiding of excess service delivery;
- proximity of service delivery points;
- differentiation of Health Trusts' distinctive vocations in the territory;
- inclusiveness;
- enhancement of professional resources.

Integration is the fundamental principle in the framework of planning; in this context the following dimensions are foreseen:

- the planning level, aimed at identifying functions/services targeted to end-users beyond the Local Health Trust basin; planning their delivery and respective managing system;
- the management and organizational level, aimed at identifying the best way of using the available resources in order to boost the optimum performance of services targeted to citizens;
- the professional level, aimed at spreading high quality health care practices both in organizational and technical terms.

According to these levels, the Social and Healthcare Territorial Conferences identified fields that are suitable for concentration and/or integration, and developed the following integration programs:

- establishment of a single laboratory where also the transfusion service can be found;
- structural concentration of drug logistics (single warehouse);
- functional (and partly structural) integration of the provisioning of services and functions as well as logistics;
- concentration through the functional integration of technical planning and administrative support procedures related to major public construction projects;
- functional integration of clinical engineering and health physics.

AVR internet web site: **http://www.areavastaromagna.it**

Agreement between Ministry of Justice and Region for healthcare in prisons

On the basis of the agreement signed by the Ministry of Justice and the Emilia-Romagna Region, the RHS provides specialist care in prisons and assures pharmaceutical care, support in drug addiction and public health surveillance. Care specialists attend prisoners for approximately 800 hours per month. Three thousands inmates are actually detained in regional prisons, among which 7-8% have significant health problems, especially in terms of drug addiction, mental problems and infectious diseases.

Regarding the most widespread health problems, such as infectious diseases (in particular hepatitis and AIDS) and mental disorders, specialist care is assured in all penitentiary institutes. Interventions concerning less common problems, in particular in the fields of gynaecology, dermatology, ophthalmology, otolaryngology and cardiology, are performed only in largest prisons (in Bologna, Modena and Parma). The agreements do not include dental care.

These activities are monitored thanks to an information system that can also rely on electronic clinical records.

The penitentiary administration will concentrate its own resources on basic health services to guarantee a 24 hour assistance service within the penitentiary institutes.

The agreements represent an important step forward in the process of transferring healthcare responsibilities in prisons to the National Health Service.

Agreement between Region and other bodies on drug addictions

In 2002, Emilia-Romagna Region and other organizations providing care signed a three-year agreement that allowed a significant improvement of quality and appropriateness in residential programs for substance abusers, while controlling expense increase.
After the first three years of implementation, all the agreement goals were reached. The analysis of needs and offer, carried out by Substance abuse services (SerTs) at the Local Health Trusts and service providing bodies at regional and local level, led to a conversion of care paths toward the new needs (cocaine addiction, multi-addicted young people, …) and to a more frequent use of regional facilities instead of extra-regional ones, with great advantages as far as care continuity is concerned. The planned expense limits were also respected.
Considered the positive results achieved, a new agreement was signed for the 2007-2009 period, maintaining most of the previous contents.
The key points are:

- commitment to further increase quality and appropriateness of interventions. In particular, innovative projects and experiences will be evaluated (evening or weekend projects, support in entering a new job, etc.);
- commitment to a further enhancement in collection and common analysis of activity data, also by sharing the information system already used by SerTs;
- participation of service providing organizations in the health and social planning. The different stakeholders will work together to better define the social and healthcare paths (risk and damage reduction, social and professional re-instatement), also through the best ongoing experiences;
- diffusion of procedures for treatment access where a public-private commission evaluates the referrals;
- re-definition of rates and programmed expenses: the rise in rates will be allowed only for those facilities that receive accreditation.

The monitoring on agreement implementation is entrusted to a regional joint Commission, that works with local joint Commissions and produces a yearly report on the work done and proposals.
In 2006, the organizations involved in the agreement accepted 2,138 people, for a total of 291,444 days of presence in the facilities. The number of presences in extra-regional facilities is radically lower: in 2006 135 people were accepted, for a total of 2,903 days.

Organization, management and monitoring of cancer screening programs

The regional screening programs provide free specific controls to men and women in definite age groups or exposed to particular risks for the prevention or early diagnosis of diseases, and when manifested, for prompt intervention with appropriate treatments.
In Emilia-Romagna, breast and cervical cancer screening programs were implemented in 1996 for women respectively between 25 and 64 years of age (more than 1,100,000 women) and between 50 and 69 years (530,000).
In March 2005, a third regional program was started, addressing men and women between 50 and 69 years (more than 1 million) for the prevention and early diagnosis of colorectal cancer.
The three programs (*see p. 31-32*) are planned after peer confrontation among involved professionals with different levels of professional and organizational responsibility.
The programs are coordinated by a regional reference and coordination Centre at the Public Health Service of the Regional Department of Health Policies, which has the role of addressing, verifying and monitoring, using data from the Local Health Trusts.
Quality and outcomes are evaluated with reference to pre-defined indicators and standards.
For epidemiological evaluation, the regional Centre refers to the Romagna Oncology Institute in Forlì through a specific agreement.
The projects on quality control, that involve all local facilities, are led by regional reference centres in Local Health Trusts.
Operational management of the programs at local level is run by the Local Health Trust in close collaboration with the Hospital or University Hospital Trust, if existing. In each Local Health Trust, a program manager (supported sometimes by a professional responsible for the diagnostic-therapeutic processes and always by an epidemiologist) coordinates a multidisciplinary workgroup for each program, with the participation of professionals actively involved in diagnostic-therapeutic pathways.
A Regional Screening Group – including regional and local program managers, epidemiologists, directors of Cancer Population Registers, coordinators of workgroups on quality control, training and communication – meets periodically.
Control and promotion of quality of diagnostic-therapeutic processes, continuing medical education and communication are discussed in specific regional groups using professional audit and peer confrontation.

Information on services: toll free number 800 033 033 and online guide to services

The toll free number 800 033 033

Iformation and communication have a strategic importance for the achievement of the distinctive principles of public health service – universality and fair access to services for all – and the pursuit of the appropriateness in the use and delivery of services.

For the purpose of providing fair access to information – as first step to fair access to services – it is necessary to act in the framework of an integrated system.

These are the basis for the creation of a free and unique Regional Health Service telephone number, which was activated in June 2002 in order to guarantee clear and homogeneous information about health services supplied, the ways of access and the places of delivery all over the region.

The toll free number is available from 8:30 a.m. to 5:30 p.m. from Monday to Friday and from 8:30 a.m. to 1:30 p.m. on Saturday. The call is free of charge all over the country, from both mobile and fixed network.

The Region, thanks to its own information and communication structures and those of the Health Trusts, laid the information and technological foundations for the service management, ensuring its constant and real time updating.

The information service of the toll free number relies on a single database, consisting in 2,300 health service provisions, regional programs, a glossary and a set of standard replies to the frequently asked questions.

Phone calls are collected in a call centre – managed by specially appointed and trained operators – connected through the computer and phone network to the Offices for Relations with the Public of the Health Trusts. This connection allows the call centre to transfer - free of charge - the phone call, if further and more detailed information is necessary.

In the first five years of activity, the services received more than 470,000 calls. More than 70% users were women and people aged between 40 and 50; yet the tools are also used by elderly: one fifth of total calls was made by seniors.

The call centre is generally able to directly answer citizens' questions and needs: as a matter of fact, just one call out of six must be transferred to the Offices for Relations with the Public of the Health Trusts for more specific information.

The toll free number and the testing of phone booking

Beginning March 2007, a new experiment was carried out involving the toll free number of the Regional Health Service, to transfer calls to the phone CUPs (unified booking centres) of the Health Trusts. The latter represent the first step towards the phone booking of specialist visits and diagnostics by means of a single regional access and standardized paths.

In the future, the main challenges for the toll free number will be the coordination with other information points and accesses to social and health services, with particular attention to socially vulnerable groups such as elderly, immigrants and people living in social and economic privation.

Online guide to services

The services offered by the toll free number of the RHS are constantly growing. Using the database, a new "Online guide to services" was created in November 2006 for the call centre and the Offices for Relations with the Public of the Health Trusts. The guide was published in the web portal of the Regional Health Service (**http://www.saluter.it**) and in all the Health Trusts' websites.

Specific information – such as where to go, how to do it, what is needed to use services supplied by the Regional Health Service – that were previously available only at the call centre and at the Health Trusts, have been revised and are now available to less experienced navigators, thanks to the expressly developed search engine and software.

Editorial coordination: Marta Fin

Edited by: Marta Fin, Nicola Quadrelli, Nicola Santolini,
with contributions from the General Direction for Health and Social Policies and from the Regional Healthcare Agency,
Emilia-Romagna Region, Italy

English version: Claudia Fariello, Tania Salandin, Federica Sarti, Marco Biocca, Regional Healthcare Agency, Emilia-Romagna Region, Italy

Graphic project: Tracce - Modena, Italy

Printing: Nuovagrafica - Carpi (Modena), Italy
November 2007

Regione Emilia-Romagna
Assessorato politiche per la salute
Viale Aldo Moro, 21
40127 Bologna, Italy
Tel. +39 051 6397150

http://www.saluter.it
infosaluter@saluter.it

Toll free number of the Regional Health Service 800 033 033

SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

Regione Emilia-Romagna