

Health & Hospitals in Italy

ANNUAL REPORT 2005



For the third year running, the Report on "Hospitals & Health" has played a key role in examining issues concerning healthcare institutions. This year, it was decided to commission an English translation of the abstract so that information would be readily available to the international community. Hospital activity deserves significant attention as it gives rise to a series of flows. Twelve million citizens are hospitalised on average every year into various healthcare institutions (public, private accredited or otherwise); 634 thousand workers offer their expertise on a daily basis and enormous financial resources are allocated to this sector (47 billion euros of public expenditure to which private expenses should be added).

The Report is divided into four sections: highlights of the year, feedback from Italian families who have had experience of the health care system, numerical data and hospital care issues that have been featured in the daily press. This makes it possible to assess the evolution of the healthcare system as well as the public's perception of it.

Once more, this year we are reporting on the slow development of a mixed public and private system. This is highlighted by public opinion as revealed by periodical cyclical surveys. In fact, the public shows an increasing tendency to conceive hospital services to be a single system to be used most effectively according to their needs, regardless of whether they are offered by public or private medical institutions. And they are willing to bear the additional costs as long as they receive a wider choice of services in return.

Furthermore, the three Aiop (Italian Association of Private Hospitals) Indices relating to the development of Italian hospitals have been calculated for the second year running. These are: the Index relating to the development of a mixed system in hospital buildings, the Index relating to public satisfaction about the services that hospitals provide and the Index relating to the public's freedom of choice.

Ermeneia – Studi & Strategie di Sistema is a specialist company that carries out analytical and consulting activities for trade associations and for both public and private customers, including those operating in the healthcare sector, particularly those who are in the process of reviewing their contribution towards economic and social development.

A.I.O.P. Associazione Italiana Ospedalità Privata (Italian Association of Private Hospitals) is a trade association that represents private healthcare institutions, accredited or otherwise. It is present in all Italian regions, employing 65 thousand workers and providing 16% of hospital services in the National Healthcare System.

This Report has been edited by Nadio Delai, in collaboration with Ermeneia – Studi & Strategie di Sistema in Rome and Aiop – Italian Association of Private Hospitalisation. To this end, a technical work group has been established, which is made up of Angelo Cassoni, Filippo Leonardi, Stefano Turchi (Aiop), and Nadio Delai (Ermeneia).

Furthermore, we have been assisted by an Address Committee which is made up of Emmanuel Miraglia, Gabriele Pelissero, Giuseppe Puntin, and Franco Bonanno.

We wish to thank the staff at the national and regional offices for their effort in collecting and organising the Aiop system internal data.

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Note

This text is an abstract of the Report on "Hospitals & Health", whose third edition was presented to the Chamber of Deputies of the Italian Parliament on December 1st 2005.

The primary objective of AIOP (Italian Association of Private Hospitals) is to contribute to a better knowledge of the Italian health system at an international level, thus providing European Institutions, professionals and scholars with several data and assessments, which in some cases, also refer to 2005).

After an introduction written by the Aiop President, Mr Emmanuel Miraglia, Part I of the abstract highlights major health issues which have emerged in the last year and analyses the supply and demand issues, focusing in particular on the quality of services and on citizens' opinions that were expressed in a dedicated survey.

Part II provides a set of indicators concerning equipment, information on hospital activities and expenses. This provides a complete collection of data on the Italian hospital system in its entirety.

Finally, details on the method applied to carry out the survey on Italian families as well as the complete list of contents of the III Report are provided.

Introduction

This Report is now in its third edition, this confirming its predominant role in the hospital sector.

It must be pointed out that more than half the national health expenditure comes from medical institutions and that 12 million people are hospitalised every year in either public, accredited private or non-accredited private institutions, where over 600,000 health workers are employed.

This is a significant issue that requires constant analysis and improvement, to ensure the best results are achieved along with the optimisation of resources.

For this reason, this annual meeting was established in order to further our understanding of the hospital sector's environment both from the demand and the supply perspective, and also to provide extra information to all the people operating in this field such as health workers, decision-makers and opinion-makers.

We believe that all the activities integrated within the medical institutions must be constantly assessed from three complementary perspectives.

The first perspective takes into account the key role played by citizens and the demand for healthcare because at the end of the hospital chain (with its management, staff and financing problems) is the patient, who is the very reason why the structure exists and is even more important than the people working in the sector.

This fact must always be borne in mind besides other important issues that involve human resource management or allocation and use of economic resources.

Consequently, we wanted each Report to include a dedicated survey on families and their experience in the hospital system (the survey is outlined in Part II of the document).

The second perspective from which sector evolution is assessed is the real development of a mixed public and private system, where every element contributes to the improvement of the hospital services supplied.

We wish to give citizens the chance to receive the best possible treatment. It appears that they are not concerned whether the hospital is public or private, but they do expect quality of treatment and a real possibility to choose the medical institutions that fully meet their requirements, without paying any additional costs.

It is clear that a good mixed hospital system should be highly competitive (by ensuring the same treatment conditions both in public and private medical institutions) and at the same time it should establish an effective collaboration in order to deal with any issues concerning citizens in the best possible way.

However, such a complex interaction calls for the impartiality of checks, a system that ensures equal opportunities between the various types of hospitals, forcing them to guarantee the minimum standard levels and to promote achievement of higher standards that can be objectively assessed.

Therefore, Part I highlights a series of details that are used to verify the extent to which a mixed public and private system is developing and to assess the progress made so far by using three specific system indicators.

The third perspective consists in looking at hospital issues beyond the viewpoint of the promoter of the Report.

Naturally Aiop fulfils its representative function and protects the interests of its members. However, another viewpoint has been taken for the purpose of the Report. A general analysis was commissioned to a third party that considers a mixed system made up of the public and private sectors and aims to improve the quality of the healthcare sector in the interest of our country, thus creating an annual event for debate and discussion.

The following pages offer various ways to analyse the hospital sector.

The most important facts signalling the growth of a mixed system, alongside the achievements and the contradictions that still exist are described in Part I:

- 12 million adult citizens hospitalised in Italy over a twelve-month period confirm that their choices are not motivated by the type (public or private) of hospital, but rather by its specialisation, by the quality of the services provided and by its geographical location;*
- cooperation between public and accredited private hospitals emerges at different levels: from the shortening of waiting lists (particularly in the prosthetic field) to rehabilitation.*
- quality is constantly pursued in the accredited private sector. This can be seen clearly in the trend of the average weight and the case-mix index of services supplied, in the number of highly-specialised DRGs, in the use of technologically advanced equipment, in the use of certification procedures for the overall structure and not only for specific wards or for single work-*

ers. All this takes place while public funding to accredited private hospitals is being reduced in terms of quantity and frequency.

However, we must not forget that efficiency in the public sector is not always the same as in the private sector, which is found to be inadequate at times. Two examples raise two key questions.

The first concerns the tendency to reduce the number of beds without reducing the number of staff, which in fact increased by 5 thousand units between 1996 and 2003.

The optimisation of human resources would have allowed for a saving of 4.6 billion euros (provided that the same staff/beds ratio in 1996 was considered as a basis for calculation). This potential saving could drop to 1.2 million euros if we considered the increase actually achieved in medical and nursing staff to extend the provision of healthcare services and we assumed a reduction in the number of the remaining workers.

The second example relates to the reduction in hospitalisation rates, an objective that was confirmed at the State-Region Conference held on March 23rd 2005, which set the ratio of 180 hospitalisations per 1,000 inhabitants (20% of which is for day hospitals).

Data show that our country has a hospitalisation rate of 208.4‰, but a more normal hospitalisation rate for ordinary acute patients of 146.1‰ (predicted 144‰), which is better than many other OECD countries. Therefore, there is a risk of creating distortions. In other words, the number of beds for ordinary acute cases could be reduced by treating patients such as the elderly in day hospitals. Elderly patients, in fact, are often obliged to go to hospital for a few days, rather than benefiting from a single hospitalisation. The hospitalisation rate for day hospitals is 62.3‰, a much higher figure than the 36‰ previously envisaged.

Finally, we must remember that the synthetic indexes provided at the end of Part I of the Report highlight the following:

- a growing average satisfaction level of hospital services as expressed by the interviewed sample, with a marked preference for accredited private hospitals;
- but also a strong, growing demand for a de facto freedom of choice between public and accredited private systems on the part of citizens, that require more information on this subject.

Part II of the Report describes the integral results of the dedicated survey carried out on Italian families and the hospital system (carried out on a national representative sample of 4,000 individuals), which enables a comparison with results obtained in 2003 and 2004.

Part III outlines the structural pattern of the supply of public and private hospital services in order to compile an updated database that could be used as a reference by both health workers and officials

The data provided also include the most recent information made available by the Italian Ministry of Health. Data regarding accredited private hospitals members of Aiop were also added, thus supplying information on members' activities during 2004 and in some cases 2005.

Finally, Part IV is a study based on a review of the press carried out over a twelve-month period, which gives useful insights into the most debated issues on healthcare, with particular reference to public and private hospitals in Italy.

We sincerely hope that this Report on "Hospitals & Health" will contribute to stimulate useful discussions and to bring forward proposals aimed at improving the supply of hospital services in Italy in the interest of citizens.

Emmanuel Miraglia
President of Aiop

Part I

Towards a mixed public and private system

1. *Narrowing the gap*

1.1. **The hospital: a social microcosm**

In the past twelve months, almost 12 million adults have benefited from hospital services provided by both public and private medical institutions. Being admitted to hospital is thus perceived as entering a social microcosm (table 1).

Most patients (10.1 million) suffered from minor illnesses or underwent minor operations, while 1.8 million were affected by serious illnesses or underwent major operations.

The sum total of 21 million people is reached by adding the number of visiting, accompanying or assisting patients (almost 9 million¹) to the number of people being hospitalised. It is a significant number that amounts to 44% of adult Italians entering hospitals over a twelve-month period.

Therefore, hospitals are undoubtedly an important issue in terms of figures and geographical mobility. The search for the most appropriate hospital services is an additional factor: in fact, 1.2 million adults accompanied by their closest relatives need to travel to another city, region or even another country (table 1).

It is worth noting that 9.1 million people (over 75% of those using hospitals over the past twelve months) have established a close and loyal relationship with hospitals, declaring that they would use the same institutions in the future should they need it. Hospitals can therefore be equated to a social mi-

¹ Obtained by a careful calculation as follows:

– At least 3 people visiting/accompanying/assisting patients affected by illnesses or who have undergone major operations (1.8 million patients x 3)	5.4 million
– 1 person (min. quantity) visiting/accompanying/assisting patients affected by diseases or who have undergone minor operations (computable to 1/3 out of a total of 10.1 million units)	<u>3.4 million</u>
Total	8.8 million

crocosm, where choices are made and relationships established on the basis of habit and trust.

Table 1 – Hospital services as "social experience"

Phenomena	Data
1. "User contact" : percentage of Italian adults using hospital services one or more times (public + accredited private + non-accredited private) over the past twelve months	25.0% equal to 11.9 million people aged 18 or over
2. Hospital mobility : percentage of people addressing themselves one or more times to hospitals outside their city, region or abroad.	10.2% equal to 1.2 million people aged 18 or over
3. "Loyalty" : number of people potentially using the same hospitals	76.3% equal to 9.1 million people aged 18 or over

Source: survey provided by Ermeneia – Studi & Strategie di Sistema, 2005

According to the hospital discharge abstracts, that outline the number of patients using such facilities, the flow of people amounts to 12.4 million cases treated over a one-year period (this includes people aged under 18 and elderly patients, who were previously excluded from the survey on families). This shows an average of 6.2 hospitalisation days per capita. (table 2).

Table 2 – The "Social experience" read through the figures of the hospital system (Year 2003)

Activities	Indicators
– Number of discharged patients (HDF)	12.4 million units
– Number of hospitalisation days	76.6 million units
– Number of hospitalisation days per discharged patient	6.2
– Total staff in healthcare institutions	634 thousand units
– Total hospital (public and accredited) expense quota out of the total national public health expense	54.1%
– Public and accredited hospital expense quota over GDP	3.3%

Source: survey provided by Ermeneia – Studi & Strategie di Sistema, 2005

However, in order to understand the social and structural pressure placed by hospitals on the healthcare “machine”, we must also consider the number of people employed (634 thousand) and the relative amount of expenditure in relation to the total amount of public expenditure on healthcare (54.1%) and to the value of GDP (3.3%).

1.2. The steady progress of a mixed system

Structural data related to national hospital supply report the existence of 1,276 public and accredited private medical institutions. All of them confirm different time trends over the years. While the former tend to decrease, due to various factors (obsolete and closing facilities; buildings converted into day hospital facilities or elderly homes), the latter tend to remain stable (about 530 units).

Consequently, the accredited private contribution to services supplied currently involves 41.5% of medical institutions. Because of the reduced number of accredited hospitals, this results in 20.7% of beds, 16.3% of patients, 19.1% of in-hospital days and 11.7% of healthcare workers.

Nevertheless, the most significant aspect is the constantly increasing presence of the private sector over the years: table 3 highlights the steady increase of accredited private hospitals over the years.

This has been made possible by containing total expenditure, since the current rate of expenditure for accredited private hospitals compared to public hospitals has gradually decreased over the past six years, as outlined in the following table:

	Incidence of current expenditure for private hospitals (accredited institutions) over current public expenditure on hospitals
- 1999	8.9%
- 2000	8.4%
- 2001	8.2%
- 2002	7.9%
- 2003	7.9%
- 2004	7.8%

Accredited private hospitals are gradually progressing towards a mixed hospital system, a tendency which is also confirmed by other elements that, though important, are not directly linked to the increase of services supplied by accredited institutions.

The first element consists in the clear agreements between public and accredited private sectors, which aim to shorten waiting lists.

Two notable examples are reported in table 4: Lombardia and Emilia Romagna.

In Lombardia there is evidence of a reduction in waiting time, compared with the average time in 1997 and in 2003; a further improvement occurs in 2005.

Table 3 – The increasing impact of (accredited) private hospitals on the national hospital supply

Case conditions	Data
a) the ratio of the number of private hospitals (accredited medical institutions) to the total number of Italian hospitals is growing	From 36.3% in 1997 to 40.5% in 2001 to 41.2% in 2002 to 41.5% in 2003
b) the ratio of the number of beds in private hospitals (accredited medical institutions) to the number of beds in Italian hospitals is growing	From 17.4% in 1997 to 19.0% in 2001 to 19.7% in 2002 to 20.7% in 2003
c) the increasing ratio of the number of patients in private hospitals (accredited medical institutions) to the total number of patients in Italian hospitals	From 11.8% in 1997 to 14.6% in 2001 to 15.3% in 2002 to 16.3% in 2003
d) the increasing ratio of the number of in-hospital days in private hospitals (accredited medical institutions) to the number of hospitalisation days in Italian hospitals	From 16.3% in 1997 to 17.5% in 2001 to 18.4% in 2002 to 19.1% in 2003
e) the increasing ratio of the number of health workers in private hospitals (accredited medical institutions) to the number of health workers in Italian hospitals	From 10.4% in 1997 to 11.5% in 2001 to 11.6% in 2002 to 11.7% in 2003

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by the Italian Ministry of Health (cf. for item a) table 1 in Part II; for item b) and d) data processing in table 13 in Part III; for item c) data processing in table 15 in Part III and for item e) tables 60 and 63 in Part III

Table 4 – Examples of waiting-list reduction, following the agreements between the Regional Health System and accredited private institutions

Regional examples	Agreements	Average waiting time for 1997	Average waiting time for 2003	Average waiting time for 2005	Reduction % for 1997/2005		
Lombardia (1)	L.R. 31/1997 D.G.R. n° 38133 of 1998	<i>Heart surgery</i>					
		- In public institutions	60 days	20 days	20 days	-66%	
		- In private institutions	35 days	7 days	7 days	-80%	
		<i>Hip replacement</i>					
		- In public institutions	480 days	170 days	158 days	-67%	
		- In private institutions	120 days	50 days	46 days	-62%	
Emilia Romagna (2)	D.G.R. n° 2001 of 30/7/1996	<i>Knee surgery</i>					
		- In public institutions	310 days	85 days	85 days	-73%	
		- In private institutions	90 days	45 days	41 days	-54%	
		<i>Public institutions</i>					
Emilia Romagna (2)	D.G.R. n° 2001 of 30/7/1996	Sant'Orsola University General Hospital	Procedures in extracor- poreal blood circuit: 10/12 months	20 days	15 days	-88%	
		Parma Hospital	Vascular procedures: 2/3 months	30 days	10 days	7 days	-77%
		<i>Private institutions</i> (3)	20 days	11 days	2-10 days	-70%	

(1) By applying the measures mentioned in the table above, the following results can be observed:

- the accredited total number of authorised beds, compared with the previous situation where institutions were only partially recognised by the NHS;
- the adaptable use of the accredited beds within the authorised accredited Operative Units Network

(2) By the Regional Council Act n. 2001 of 30/7/1996, the draft agreement for heart surgery signed on 16/7/96 was endorsed, thus authorising private Institutions to carry out accredited heart surgery activities.

In 1996 private institutions still had not been accredited to perform heart surgery activities.

(3) Average data relating to the following institutions are provided: Maria Cecilia (RA), Hesperia Hospital (MO), Villa Torri (BO) e Villa Salus (RE)

Source: data processing provided by Ermeneia on information supplied by Aiop

In Emilia Romagna a similar trend can be observed with an improvement between 1997-2003 and between 2003-2005.

The overall result shows the success of a "single system" collaboration between accredited private and public sectors in reducing waiting time from a minimum of 54% to a maximum of 88%.

In addition to the afore-mentioned examples, the survey carried out in 2005 by Aiop Regional Representative shows that in nearly half of Italian regions (45% of cases) there are special agreements between accredited private hospitals and the USL (Local Health System). The main objective is to reduce waiting lists through collaboration between public and private systems.

A similar example of a "mixed" hospital system is provided by data relating to prosthetic procedures on hips, knees and shoulders within medical institutions associated with Aiop (table 5). An *ad hoc* survey carried out in these institutions² highlights considerable prosthetic activity in 2004:

- 15,970 hip replacements (+9.6% compared to 2003);
- 17,047 knee procedures (+18.1% compared to 2003);
- 495 shoulder procedures (+40.2% compared to 2003).

A relevant yearly increase in activity can be observed. Moreover, the possibility of a further increase is shown according to dedicated opinion polls. Potentially, the number of procedures could rise by 1/4 and 2/3 (compared to the current situation).

This will only be achieved if "ceilings" are set for accredited medical institutions' activities by the Regional Health Service.

Citizens want to see the development of a mixed hospital system

The 2005 survey on families, described in detail in Part II of this Report, shows that opinions and reactions on this issue are very strong.

Almost 9 out of 10 citizens declared that "when hospitalised, they do not really care whether the hospital is a public or an accredited private one, since other factors are more important, such as the field of specialization required, the quality of services, the distance from home, etc." (table 6).

The interviewees' opinion is biased due to lack of information: only 28.0% of Italians are "fully" aware of the existing regulations that allow them to use both public and accredited private hospitals free of charge, whereas the vast majority (78.6%) demands further information on the current choices on services free of charge provided by both public and accredited private hospitals (table 6).

² During 2005, questionnaires were sent to all 186 orthopaedic institutions: 183 replied.

Table 5 – Current and prospective additional contributions to prosthetic activity (number of procedures) carried out in orthopaedic institutions associated with Aiop. Year 2004

Regions	Hip			Knee			Shoulder		
	Procedures in 2003	Procedures in 2004	Estimated increase %	Procedures in 2003	Procedures in 2004	Estimated increase %	Procedures in 2003	Procedures in 2004	Estimated increase %
– Piemonte	551	903	17.3	682	1,157	18.5	29	86	33.7
– Lombardia	4,568	4,736	23.3	3,864	4,111	22.4	95	101	40.6
– Veneto	1,535	1,717	26.3	1,062	1,445	35.8	38	53	77.4
– Friuli Venezia G.	257	254	13.4	298	273	38.1	-	2	50.0
– Emilia Romagna	1,255	1,475	19.2	1,747	1,999	15.0	44	63	33.3
– Toscana	1,023	974	27.1	864	1,069	24.7	22	59	18.6
– Umbria	108	135	14.8	141	169	26.6	-	3	100.0
– Marche	50	38	57.9	38	39	79.5	1	-	-
– Lazio	1,576	1,754	19.6	1,132	1,236	34.8	51	71	69.0
– Abruzzi	308	359	7.0	637	686	6.6	4	5	100.0
– Campania	1,205	1,315	42.1	1,157	1,461	39.1	28	15	200.0
– Puglia	278	364	15.4	406	545	7.9	9	7	14.3
– Basilicata	30	26	115.4	137	80	125.0	-	-	-
– Calabria	620	607	22.1	608	625	34.9	24	23	30.4
– Sicilia	1,088	1,178	25.4	1,575	1,933	25.0	8	7	357.1
– Sardegna	119	135	22.2	89	219	24.2	-	-	-
North	8,166	9,085	22.3	7,653	8,985	22.8	206	305	43.6
Centre	2,757	2,901	22.4	2,175	2,513	30.6	74	133	85.0
South	3,648	3,984	28.3	4,609	5,549	27.3	73	57	154.4
Italy	14,571	15,970	23.8	14,437	17,047	25.4	353	495	67.5
% Increase in 2003/04		9.6			18.1			40.2	

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by Aiop

Table 6 – A mixed hospital system is emerging in public opinion

Observable facts	Data
1. Choice criterion based on personal requirements versus institutional status: "when hospitalised, people do not really care whether it is a public or an accredited private hospital, other factors are taken into consideration: the presence of a required field of specialization; the quality of services; the distance from home; etc." (opinions recorded as: very strongly + fairly strongly in agreement with)	87.2%
2. Limited awareness of choice availability between public/private systems, at equal costs: number of people who are fully aware of the regulations that allow them to use these institutions, public or accredited private hospitals irrespectively.	28.0%
3. The need for further information on choice opportunities: "little is known about the various possibilities of hospitalisation offered by the accredited private system: The Regional Administration and ASL (Local Health Units) should invest in effective information campaigns for citizens, so that they can enjoy real freedom of choice" (opinions recorded as: very strongly or fairly strongly in agreement with)	78.6%

Source: survey provided by Ermeneia – Studi & Strategie di Sistema, 2005

2. *The growth of the accredited private sector*

2.1. **The private sector, a setting where quality is pursued**

In order to establish a mixed public and private system each component should be cooperative and competitive while always aiming to improve the quality of services.

As far as the accredited private sector is concerned, an indicator of this trend is the "average weight" of the services supplied¹ (table 7).

The increase of this indicator over the years relates to both public and Aiop facilities: the latter have increased by 5 points while public institutions have increased by 4 points, achieving a similar level of services. In fact, in 2003, accredited private institutions reached the average weight of 1.19 compared to 1.22 of public institutions.

Furthermore, there are regional trends, such as in Lombardia and Toscana, where the private sector has overtaken the public sector (Liguria is another good example of this due to the prestige of two highly-specialised accredited hospitals).

The average weight increased by more than 4% in 2002 and 2003, and recorded an additional 1.7% in 2004 (table 8), even taking into account that in

¹ The average weight is a synthetic indicator expressing the level of complexity of selected pathologies (case study). It results from the average of the relative weight for each group of patients (DRG) assessed according to the number of discharged patients. The calculation formula is as follows:

$$\text{Average weight} = \frac{\sum_{g=1}^{492} (a_g \cdot N_{gh})}{\sum_{g=1}^{492} N_{gh}}$$

where: a_g = specific relative weight for each DRG;

N_{gh} = number of discharged patients per DRG in a single hospital or in a group of hospitals.

Table 7 – Quality of services measured according to the "average weight". Years 2001, 2002 and 2003

Regions	2001		2002		2003	
	Public institutions	Aiop private hospitals (accredited institutions)	Public institutions	Aiop private hospitals (accredited institutions)	Public institutions	Aiop private hospitals (accredited institutions)
– Piemonte	1.24	1.29	1.39	1.39	1.45	1.19
– Lombardia	1.23	1.33	1.33	1.41	1.36	1.44
– A.P. of Bolzano	1.05	no data	1.34	n.d.	1.33	1.10
– A.P. of Trento	1.17	n.d.	1.41	n.d.	1.43	1.10
– Veneto(*)	1.24	1.12	1.33	1.15	1.37	1.25
– Friuli Venezia Giulia	1.33	1.12	1.45	1.16	1.48	1.22
– Liguria	1.20	n.d.	1.51	n.d.	1.57	2.96 ^(a)
– Emilia Romagna	1.26	1.35	1.34	1.35	1.37	1.36
– Toscana	1.25	1.27	1.38	1.48	1.44	1.57
– Umbria	1.17	1.07	1.37	1.18	1.39	1.22
– Marche	1.20	0.95	1.40	1.01	1.42	1.06
– Lazio	1.14	1.03	1.24	1.06	1.27	1.11
– Abruzzi	1.07	0.93	1.15	0.94	1.17	1.00
– Molise	1.03	0.88	1.51	0.86	1.53	n.d.
– Campania	1.01	0.97	1.12	1.00	1.17	1.06
– Puglia	1.01	1.05	1.14	1.09	1.18	1.12
– Basilicata	1.04	0.97	1.33	1.01	1.33	n.d.
– Calabria	0.98	0.92	1.32	0.93	1.35	1.06
– Sicilia	1.01	0.93	1.11	0.99	1.15	1.14
– Sardegna	1.05	0.82	1.24	0.83	1.26	0.87
Italy	1.14	1.09	1.18	1.14	1.22	1.19

(*) In Veneto, 4 private hospitals (accredited institutions) associated with Aiop and classified as Usl (Local Health Unit) facilities must be added to public institutions

(a) The high average weight is due to the presence of two accredited institutions, mainly dedicated to highly-specialised activities

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by the Italian Ministry of Health and Aiop

Table 8 – The progress of the activity of private hospitals, (accredited institutions) members of Aiop, following the increase in the "average weight" of services supplied. Years 2001, 2002, 2003 and 2004

Regions	2001 average weight	2002 average weight	2003 average weight	2004 average weight	Variations 2001/2002	Variations 2002/2003	Variations 2003/2004
– Piemonte	1.29	1.39	1.19	1.41	7.8%	-14.4%	18.5%
– Lombardia	1.33	1.41	1.44	1.46	6.0%	2.1%	1.4%
– A.P. of Bolzano	n.d.	n.d.	1.10	1.08	n.d.	n.d.	-1.8%
– A.P. of Trento	n.d.	n.d.	1.10	n.d.	n.d.	n.d.	n.d.
– Veneto	1.12	1.15	1.25	1.33	2.7%	8.7%	6.4%
– Friuli Venezia Giulia	1.12	1.16	1.22	1.21	3.6%	5.2%	-0.8%
– Liguria	n.d.	n.d.	2.96 ^(a)	2.93	n.d.	n.d.	-1.0%
– Emilia Romagna	1.35	1.35	1.36	1.41	0.0%	0.7%	3.7%
– Toscana	1.27	1.48	1.57	1.62	16.5%	6.1%	3.2%
– Umbria	1.07	1.18	1.22	1.34	10.3%	3.4%	9.8%
– Marche	0.95	1.01	1.06	1.01	6.3%	5.0%	-4.7%
– Lazio	1.03	1.06	1.11	1.14	2.9%	4.7%	2.7%
– Abruzzi	0.93	0.94	1.00	1.04	1.1%	6.4%	4.0%
– Molise	0.88	0.86	n.d.	n.d.	-2.3%	n.d.	n.d.
– Campania	0.97	1.00	1.06	1.04	3.1%	6.0%	-1.9%
– Puglia	1.05	1.09	1.12	1.11	3.8%	2.8%	-0.9%
– Basilicata	0.97	1.01	n.d.	n.d.	4.1%	n.d.	n.d.
– Calabria	0.92	0.93	1.06	1.08	1.1%	14.0%	1.9%
– Sicilia	0.93	0.99	1.14	1.15	6.5%	15.2%	0.9%
– Sardegna	0.82	0.83	0.87	0.88	1.2%	4.8%	1.1%
Total	1.09	1.14	1.19	1.21	4.6%	4.4%	1.7%

(a) The high average weight is due to the existence of two accredited institutions, which carry out mostly highly-specialised activities

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by Aiop

many regions accredited private hospitals are required to carry out highly-specialised activities and to exceed certain “ceilings”.

The second performance indicator refers to what is known as a "case mix" index².

In this instance, a similarity can be observed between public and accredited private institutions (in 2003), whose indexes are 0.98 and 1.01 respectively. This confirms a gradual improvement in the quality of the private sector over the years (table 9).

Accredited private institutions in Toscana and Lombardia are in a favourable situation compared to public ones, the same can be said for Liguria (data for this region are provided in table 7).

The third significant indicator of the quality improvement the accredited private system is accomplishing can be inferred by the trend of highly-specialised DRGs (table 10).

As well as comparing public and accredited private systems, both affected by the total number of discharged patients, it is important to point out that the activity of private hospitals is complex and of high quality, and does not involve only pathologies with a low clinical risk factor. This enhances its active, significant role in the entire hospital system.

Performance has also improved within public and accredited private hospitals compared to previous years.

² The average weight is a synthetic indicator expressing the level of complexity of selected pathologies. It outlines the complexity of cases examined in each ward, facility or sector compared to the complexity of cases examined within the national system. Levels of case-mix indexes higher than 1 are associated with a higher level of complexity than the average of the reference system. The calculation formula is the following:

$$\text{Case-mix index} = \frac{\left[\sum_{g=1}^{492} (a_g \cdot N_{gh}) \right] : \sum_{g=1}^{492} N_{gh}}{\left[\sum_{g=1}^{492} (a_g \cdot N_{gr}) \right] : \sum_{g=1}^{492} N_{gr}}$$

where: a_g = specific relative weight per DRG;

N_{gh} = number of discharged patients per DRG in a single hospital or in a group of hospitals;

N_{gr} = number of discharged patients per DRG in the system taken as reference (i.e. regional or national total).

Table 9 – Comparison between public institutions and private hospitals (accredited medical institutions) members of Aiop, according to the "case mix index" of services supplied. Years 2001, 2002 and 2003

Regions	2001		2002		2003	
	Public institutions	Aiop private hospitals (accredited institutions)	Public institutions	Aiop private hospitals (accredited institutions)	Public institutions	Aiop private hospitals (accredited institutions)
– Piemonte	1.09	1.13	1.18	1.20	1.20	0.98
– Lombardia	1.08	1.18	1.13	1.20	1.12	1.19
– A.P. of Bolzano	0.92	n.d.	1.14	n.d.	1.10	0.91
– A.P. of Trento	1.03	n.d.	1.20	n.d.	1.18	n.d.
– Veneto ^(*)	1.09	0.98	1.13	0.99	1.13	1.03
– Friuli Venezia Giulia	1.16	0.98	1.23	0.99	1.22	1.00
– Liguria	1.06	n.d.	1.29	n.d.	1.29	2.47
– Emilia Romagna	1.11	1.19	1.14	1.15	1.13	1.12
– Toscana	1.10	1.11	1.17	1.26	1.19	1.30
– Umbria	1.03	0.94	1.16	1.00	1.15	1.00
– Marche	1.05	0.83	1.19	0.86	1.17	0.88
– Lazio	1.00	0.91	1.05	0.90	1.04	0.92
– Abruzzi	0.94	0.81	0.98	0.80	0.97	0.82
– Molise	0.91	0.77	1.28	0.73	1.26	n.d.
– Campania	0.89	0.85	0.95	0.85	0.96	0.87
– Puglia	0.89	0.92	0.97	0.93	0.97	0.92
– Basilicata	0.91	0.85	1.13	n.d.	1.09	n.d.
– Calabria	0.86	0.81	1.12	0.83	1.11	0.87
– Sicilia	0.88	0.81	0.94	0.86	0.94	0.94
– Sardegna	0.92	0.72	1.06	0.71	1.04	0.72
Total	1.00	0.96	1.01	0.97	1.01	0.98

(*) In Veneto, among public institutions there are also 4 private hospitals (accredited institutions) members of Aiop and classified as Usl facility (Local Health Unit)

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by the Italian Ministry of Health and Aiop

Table 10 – Quality of public and private services as measured by the rate of highly-specialised DRGs^(*)

DRG	Public institutions			Aiop private hospitals (accredited institutions)			
	(incidence on 1,000 discharged patients)			(incidence on 1,000 discharged patients)			
	2001	2002	2003	2001	2002	2003	
104	Heart valves procedures with cardiac catheterisation	0.569	0.706	0.815	1.883	2.196	3.083
105	Heart valves procedures without cardiac catheterisation	1.171	1.336	1.511	1.704	1.380	1.964
106	Coronary bypass with cardiac catheterisation	0.744	0.825	0.845	2.942	2.624	3.560
107	Coronary bypass without cardiac catheterisation	1.561	1.636	1.647	4.097	3.519	4.143
108	Other cardiovascular system procedures	0.407	0.447	0.506	0.661	0.585	0.733
110	Major procedures to circulatory system, with CC	0.984	1.098	1.149	0.986	0.961	1.236
Average incidence		11.401	12.581	13.510	13.698	12.241	16.460

(*) Acute cases in ordinary hospitalisation

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by the Italian Ministry of Health and Aiop

If we take into account the indicators of equipment rather than performance, the following can be observed:

- more advanced and dedicated equipment is available in accredited private hospitals, particularly Haemodialysis Units (HDU), Magnetic Resonance Imaging units (MRI) and Linear Accelerators (LINAC). Given that private institutions (accredited and non-accredited) are equipped with 47.1% of Hyperbaric Chambers, 36.3% of CAT (Computerised Axial Tomograph), 11.3% Haemodialysis Units, 54.8% of Magnetic Resonance Imaging Units and 15.2% of Linear Accelerators compared to public institutions (table 11).
- a constant supply of emergency hospital services provided by the accredited private institutions: currently there are 42 institutions per region, namely 12.6% of accredited beds assigned to this sector (table 12);
- the use of quality certification procedures by the accredited private sector in the entire hospital structure (a safer solution as far as the patient is concerned, when compared to procedures involving single wards) concerns a total of 147 hospitals (92 in 2003) compared with a total of 20 in the public sector. The latter tends to use quality certification procedures in specific wards or services, rather than in the entire hospital structure (table 13).

Even citizens recognise that accredited private hospitals have increased overall quality standards: they declare (77.4% of cases) that by their own experience or by the experience of parents, friends or acquaintances, accredited private hospitals have improved over the years" (table 14).

If we take into account the opinion of people who have used hospital services over the past twelve months, it is clear that they are more satisfied with accredited private hospitals (private clinics included) than with public ones. This is due to a wide range of factors including staff expertise, efficient treatment of patients, prompt delivery of treatment and state-of-the-art of the equipment used (table 14).

2.2. A sound investment of public resources

The trend of public resource transfers financing the accredited private sector can be compared with the steady increase in the quality of services provided by the accredited private sector.

Table 11 – Private sector contribution concerning advanced equipment . Year 2003

Sophisticated equipment	Public institutions	Private hospitals	Non-accredited	$\frac{(b)}{(a)} \times 100$		$\frac{(b) + (c)}{(a)} \times 100$	
	equipment	(accredited institutions)	institutions	(a)		(a)	
	(a)	equipment (b)	(c)	2003	2001	2003	2001
– Hyperbaric Chamber (HC)	34	14	2	41.2	46.0	47.1	48.6
– Computerised Axial Tomograph (CAT)	863	262	51	30.4	30.5	36.3	36.4
– Haemodialysis Unit (HDU)	10,382	1,071	107	10.3	9.7	11.3	10.8
– Magnetic Resonance Imaging unit (MRI)	330	150	31	45.5	42.1	54.8	52.4
– Linear Accelerator (LINAC)	223	23	11	10.3	7.6	15.2	13.6

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by the Italian Ministry of Health

Table 12 – Contribution of accredited private hospitals (Aiop) to emergency hospital services. Year 2005

Regions	Emergency care unit	Trauma Unit	First-aid station	Total number of buildings with T.U.	Total number of buildings linked with 118 network	Rate % on the total number of accredited buildings in the Region	Rate % on the total number of accredited beds in the Region
– Piemonte							
– Lombardia	6	11	-	17	17	29.3	36.6
– A.P. of Bolzano	-	-	-	-	-	-	-
– A.P. of Trento	-	--	-	-	-	-	-
– Veneto	4	-	2	6	6	40.0	62.6
– Friuli Venezia Giulia	-	-	1	1	-	20.0	34.9
– Liguria	-	-	-	-	-	-	-
– Emilia-Romagna	2	-	1	3	2	7.1	8.0
– Toscana	-	-	1	1	-	3.6	4.7
– Umbria	-	-	-	-	-	-	-
– Marche	-	1	-	1	-	7.1	10.7
– Lazio	1	3	-	4	4	4.8	10.8
– Abruzzi	-	-	-	-	-	-	-
– Molise	-	-	-	-	-	-	-
– Campania	2	-	-	2	2	2.8	3.3
– Puglia	-	1	1	2	-	6.7	5.8
– Basilicata	-	-	-	-	-	-	-
– Calabria	-	1	-	1	1	2.6	2.7
– Sicilia	-	4	-	4	4	6.6	6.2
– Sardegna	-	-	-	-	-	-	-
North	12	11	4	27	25	15.5	23.4
Centre	1	4	1	6	4	4.6	9.5
South	2	6	1	9	7	3.9	3.5
Italy	15	21	6	42	36	7.9	12.6

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by Aiop

Table 13 – Public and private hospitals (accredited medical institutions) certified with the ISO 9000 procedure

Regions	Certified private hospitals (accredited and non-accredited medical institutions)		Public hospitals	
	Entire building	Single wards or services	Entire building	Single wards or services
– Piemonte	2	3	1	8
– Valle D'Aosta	-	-	-	1
– Lombardia	26	8	9	78
– A.P. of Bolzano	-	-	-	3
– A.P. of Trento	1	1	-	-
– Veneto	14	3	2	28
– Friuli Venezia G.	-	-	-	3
– Liguria	1	1	2	7
– Emilia Romagna	15	5	1	15
– Toscana	5	4	-	10
– Umbria	3	1	-	-
– Marche	4	1	1	9
– Lazio	13	4	-	4
– Abruzzi	10	-	-	6
– Molise	1	-	-	1
– Campania	12	2	1	11
– Puglia	5	3	1	6
– Basilicata	-	-	-	-
– Calabria	9	8	-	-
– Sicilia	25	7	2	6
– Sardegna	1	-	-	1
Italy	147	51	20	197

Source: data processing provided by Ermeneia on information supplied by Sincert 2005

Table 14 – Quality of services according to citizens

Case	Data			
1. Quality increase according to the public (2004): "by direct or indirect experience (parents, friends, acquaintances), the accredited private hospital has improved over the years".	77.4%			
2. High levels of satisfaction with services received during the last hospitalisation:	Highly satisfied	Fairly satisfied	Total	
– In public hospitals	22.2	61.2	83.4	
– In accredited private hospitals	31.9	62.1	93.0	
– In private clinics	30.2	60.5	90.7	
3. Key factors of satisfaction during the last hospitalisation:	Staff competence	Effective treatment	Acceptable waiting time	Technologic equipment
– In public hospitals	85.6	78.8	58.8	79.7
– In accredited private hospitals	95.6	87.8	81.6	87.5
– In private clinics	90.4	86.2	82.9	87.5

Source: survey carried out by Ermeneia – Studi & Strategie di Sistema, 2005

Starting from values at stable costs, table 15 highlights the development of hospital expenditure (for public and accredited private institutions). This figure remains significantly below the increase of the total public health expenditure: in fact, percentage variations over the years (listed in the first two lines of the second part of the table) show this quite clearly.

However, the difference between the trend in public hospital expenditure (concerning USL facilities and Hospital Enterprises) and accredited private hospitals is even more significant. The comparison between the percentage data in line 3 and 4 in table 15 shows a significant discrepancy which highlights how accredited private hospitals (which were increasing their activity and improving the quality of their services during those years) tend to make use of public resources in moderation, thus recording a negative figure in 2001 and 2002.

As a result, fewer resources were allocated to the accredited private hospital system in 2000, 2001 and 2002 when compared to the GDP trend. The figures then turned positive in 2003 and 2004 (cf. percentage line 7 of table 15).

Table 15 – Funding and costs for public and accredited private systems

Absolute value at steady costs (in million euros)	1999	2000	2001	2002	2003	2004
– Total public health expenditure	56,140	61,061	65,857	66,984	66,729	69,583
– Total hospital expenditure (public + accredited private hospitals)	31,571	34,027	34,608	35,017	35,266	36,575
– Expenditure in USL facilities and hospital enterprises	25,121	27,049	27,829	28,312	28,530	29,609
– Expenditure in private hospitals (accredited institutions)	2,826	2,866	2,778	2,707	2,740	2,836
– GDP	985,253.23	1,015,077.07	1,032,985.00	1,036,944.63	1,039,580.82	1,052,308.33
– Total hospital expenditure (public + accredited private hospitals)/GDP per 100	3.20	3.35	3.35	3.38	3.39	3.48
– Private hospitals (accredited institutions) expenditure/GDP per 100	0.29	0.28	0.27	0.26	0.26	0.27
– USL facilities and hospital enterprises expenditure/Discharged patients	2,658.30	2,916.58	2,979.46	3,068.13	3,151.08	n.d.
– Private hospitals (accredited institutions) expenditure/Discharged patients	1,944.01	1,871.54	1,698.04	1,581.48	1,592.76	n.d.
– Comparison between public and accredited private hospitals on expenditure per discharged patient (% ratio of private to public)	73.1	64.2	57.0	51.5	50.5	n.d.
Percentage variations		2000	2001	2002	2003	2004
– Total public health expenditure		8.8	7.9	1.7	-0.4	4.3
– Total hospital expenditure (public + accredited private hospitals)		7.8	1.7	1.2	0.7	3.7
– Expenditure in USL facilities and hospital enterprises		7.7	2.9	1.7	0.8	3.8
– Expenditure in private hospitals (accredited institutions)		1.4	-3.1	-2.6	1.2	3.5
– GDP		3.0	1.8	0.4	0.3	1.2
– Total hospital expenditure (public + accredited private institutions)/GDP		4.6	-0.1	0.8	0.5	2.5
– Private hospitals (accredited institutions) expenditure/GDP		-1.6	-4.8	-2.9	1.0	2.3
USL facilities and hospital enterprises expenditure/Discharged patients		9.7	2.2	3.0	2.7	n.d.
Private hospitals (accredited enterprises) expenditure/Discharged patients		-3.7	-9.3	-6.9	0.7	n.d.

Source: data processing provided by Ermeneia – Studi & Strategie di Sistema on information supplied by the Italian Ministry of Health and Aiop

Finally, if we consider the cost per discharged patient in the different facilities analysed so far, accredited private hospitals revealed a positive variation in 2003: in fact, a patient costs the National Health Service only 50% of the total cost when he/she is treated in accredited private hospitals rather than in public hospitals (cf. last line of part 1 of table 15). Moreover, the cost/discharged patient ratio in public hospitals has been steadily increasing over the years, exceeding the annual GDP. Conversely, this ratio decreased in the accredited private sector in 2000, 2001 and 2002.

Nevertheless, differences in the working conditions of public and private hospitals must be taken into account as costs for providing geographical medical coverage and specialised services are certainly higher for public hospitals. However, the allocation of public funds to accredited private facilities takes place on the basis of "ex-post" criteria aimed at reducing expenditure.

2.3. Different treatment in public and private sectors

The use of the DRG system is in full use in accredited private hospital enterprises, whereas it has only been partially introduced in the public system. This confirms the use of a different treatment in the two sectors, given that the public sector oversees geographical medical assistance and provides for specialised services. In spite of this, public hospitals could be more efficient if they were to apply a DRG system in full while also exercising an *ad hoc* "rebalancing ratio" to guarantee adequate coverage in specific geographical areas as well as providing specialised services.

In addition, rates granted to the accredited private system include both operating expenses and capital expenditure, whereas in public financing the latter is always added to current expenditure.

Given this situation, relations between accredited private hospitals and the Regional Health Services must be taken into consideration (table 16).

As shown by the data relating to the last twelve months, a "ceiling" was established for services supplied in all Italian regions (both in 2004 and in 2005). If we consider each specific case, a "ceiling" could also be established for:

- hospitalisation services (20% of cases);
- day hospitals (10% of cases);
- both services mentioned above (70% of cases).

In addition, the established "ceiling" is often exceeded and tariff reductions are therefore applied so that Regional Health Services can contain

expenditure. This occurred in 75% of cases in 2005, and in 82% of cases in 2004: this seems to show a slight reduction in the tariff reduction system.

Table 16 – Relation between private hospitals (accredited medical institutions) and Regional Health Services

Type of relation	% over the total number of examined cases	
	Year 2005	Year 2004
– Over the past twelve months, the “ceiling” to services has been adopted	100%	100%
– In case of exceeding “ceiling”, a tariff reduction has been adopted	75%	82%
– Average tariff reduction adopted compared with the full tariff (ranging between 4% and 85% in 2005, with two peaks around 45% and 70%)	43%	n.d.
– A monthly advance payment is allocated according to the turnover of private hospitals (accredited medical institutions)	85% ^(**)	68% ^(***)
– Average advance payment compared to the relative turnover (ranging between 8% and 90% in 2005, but with a peak around 80%)	71%	n.d.
– Delay in invoice payment	80%	82%
– Average delay expressed in months (ranging between 2 and 20 months in 2005, but with a major peak on a 6-month period, concerning 37.6% of surveyed hospitals).	7 months	n.d.
– The <i>factoring</i> procedure has been used or is in the process of being applied to claim due and exact payments	36.8%	n.d.
– An accreditation system has been implemented, according to the Bindi Law (still unfinished)	70%	68%
– Accreditation regulations have been integrated according to the Bindi Law	55%	63%
– A timescale has been set for the completion of structural modernisation	80%	80%
– Required average time for structural modernisation (ranging between 4 and 60 months in 2005, but with a major peak of a 36-month period and over, equal to 73.2%)	42 months	n.d.

(*) Yes, but not regular in 7 of them

(**) In 35% of cases, resources are not allocated regularly

(***) In 37% of cases, resources are not allocated regularly

Source: survey provided by Ermeneia – Studi & Strategie di Sistema, 2005

How big is such a tariff reduction? In 2005, there was an average tariff reduction of 43%, though percentages were different and varied from a minimum of 4% to a maximum of 85%. However, over half of Italian regions showed percentages of 45% and over.

As for funds allocation based on the turnover of accredited private hospitals, a system of monthly advance payment is used, even though there are differences between the regions. In 2005, this system was used in 85% of Italian regions, it became the norm in 50% of cases and was applied occasionally in 35% of the remaining cases (the rate of occasional use has not changed over the years).

The average advance payment compared to the turnover was 71% in 2005, but sometimes this figure can reach and exceed 85% (in 18.7% of cases).

However, average delayed payments are a "normal" procedure: with an incidence of about 80% of cases (a slight reduction has been recorded compared to the previous year), while the average delay can reach 7 months.

The *factoring* procedure has been introduced to overcome the issue of delayed payments. It has been applied to just over a 1/3 of Italian Regions (36.8%). In 1 case out of 4, this procedure is actually active, while in 1 case out of 10 the procedure is still being set up. This system could involve an additional 26% of regions, where the *factoring* procedure has yet to be fully applied.

It is clear that financial flows, as well as diverse tariff systems and "ceilings", force the private system to fall back on the credit system, ultimately affecting the profit and loss statement and reducing incomes deriving from DRGs.

Another different approach concerns the accreditation system used by the Regional Health Services.

In 70% of cases, this procedure has been adopted according to the Bindi Law, but it has only been effectively completed in 10% of cases. Accreditation regulations have been introduced in line with the above-mentioned law in 55% of cases, providing a time scale for structural modernization (in 80% of cases).

The expected time scale for restructuring is nearly 42 months long, a period that can range from 4 to 60 months (the majority of cases, 83.2%, requires 36 months and over).

3. *The difficult rationalisation of the public sector*

3.1. **An unexploited saving potential**

A debate on the possibility of rationalising public expenditure – starting from the ratio of staff to activities performed – can arise from the many regulations that have been introduced over the years to reduce the number of beds, as hospital expenditure amounts to 50% of the National Health Fund.

Since 1985, the following measures outlining standards regarding the reduction of beds per inhabitant are noteworthy:

- Law 595/85: 6.5 beds per 1,000 inhabitants, 1‰ of which is set for rehabilitation;
- Law 412/91: 6.0 beds per 1,000 inhabitants, 0,5‰ of which is set for rehabilitation;
- Law 537/93: 5.5 beds per 1,000 inhabitants, 1‰ of which is set for rehabilitation;
- Law 405/01: 5.0 beds per 1,000 inhabitants, 1‰ of which is set for rehabilitation;
- Agreement State-Regions dated March 23 2005: 4.5 beds per 1,000 inhabitants (rehabilitation and long-stay included);

If we consider the figures relating to 1996 and 2003, we see a drop in the beds/population ratio from 6.7‰ in 1996 to 4.8‰ in 2003, as outlined in the official data on the number of available beds (including day hospitals). The following illustrate such a decline:

	1996	2003
Total public and accredited private beds	385,497	277,977
Population	57,332,996	57,321,070
Beds/Population per 1,000	6.7	4.8

Therefore, the data confirm the tendency to reduce the total number of beds. Theoretically this should cause a staff cut which would reduce expenses, as envisaged in the final stage of the proposed project.

Table 17 shows the trend in the number of staff employed in public medical institutions (hospitals directly managed by USL and Hospital Enterprises) between 1996 and 2003: staff numbers went from 482,004 to 487,192, with an increase of +5,188 units, while the number of beds dropped from 274,251 to 185,871 (-88,380 beds).

Table 17 also shows the results of a hypothetical rationalisation involving a reduction in the number of beds. The year 1996 was set as a reference because it marked the moment when the new system based upon DRGs came into operation for the first time. As a consequence the staff/beds indicator, equal to 1.76, is a recognised starting reference value.

Therefore, if we applied the staff/bed ratio (following qualifications) valid from 1996 to the year 2003, the number of staff would come to 326,674 units (instead of 487,192).

If we were to estimate the unrealized theoretical savings, the corresponding average costs of the contract currently in force should be applied to the various qualifications while taking into account the number of hypothetical redundant personnel compared to standards (160.518 units in total). The resulting value would then be 4,598.0 million euros, as indicated in the last column of table 17.

However, a second theory can be suggested. Assuming that medical and nursing staff was the same as in 1996 and that better assistance per bed was provided, it would be possible to make a saving of 1,200.0 million euros .

3.2. Budget or health care logic?

During the session held on March 23 2005 at the State-Regions Conference it was established in Article 4 that Regions should engage themselves "[...] in taking, by 30.09.2005, measures to promote both the change from ordinary hospitalisation to day hospital and the development of alternative solutions to hospitalisation. Similarly, a reduction in hospital care services should be achieved, while ensuring that hospitalisation rates for ordinary and day hospital admissions are kept at 180 per 1,000 inhabitants (20% of which refers to day hospital) by 2007. Intermediate objectives should also be defined for 2005 and 2006 and these will be subjected to verification".

If we consider the current rate for acute cases in ordinary hospitalisation, today Italy occupies a better position than other European countries (table 18): rates are lower (hence better) than in Germany, Denmark and Belgium, while they are higher (hence worse) than in Ireland or Spain.

Table 17 – Economic value of unfinished rationalisation following the reduction in the number of beds in public hospitals

Qualifications	1996		2003				Missed savings	
	Registered units	Staff/Beds	Expected units	Staff/Beds	Registered units	Staff/Beds	Difference Foreseen/Expected	Estimation (in million euros)
Doctors and dentists	84,695	0.31	57,401	0.31	88,710	0.48	31,309	1,596.7
Nurses	210,561	0.77	142,706	0.77	214,670	1.15	71,964	1,799.1
Other staff	186,748	0.68	126,567	0.68	183,812	0.99	57,245	1,202.2
Total	482,004	1.76	326,674	1.76	487,192	2.62	160,518	4,598.0
Public hospital beds	274,251	-	-	-	185,871	-	-	-

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table 18 – Hospitalisation rates per 1,000 inhabitants in institutions for acute cases in selected OECD countries. Years 2000-2003

	2000	2001	2002	2003
– Belgium	154.31	162.02	159.94	-
– Denmark	188.12	189.42	195.78	197.41
– Germany	199.61	200.60	201.64	-
– Ireland	127.17	129.16	123.10	124.05
– Italy	156.98	154.23	148.92	140.53
– Luxembourg	182.93	179.49	176.27	175.17
– Norway	154.08	159.84	162.63	170.92
– Spain	112.10	108.83	108.93	-
– Sweden	164.58	162.55	160.09	-
– Switzerland	-	-	154.21	154.87

Source: data processing by Ermeneia – Studi & Strategie di Sistema on data provided by OECD – October 2005

Finally, the OECD data outlined in the above-mentioned table coincide with the data provided by the Italian Ministry of Health for each region (table 19).

In this case, variation in hospitalisation rates for acute cases can also be observed in different parts of Italy: it is relatively low in Piemonte, Valle d’Aosta, the Autonomous Province of Trento, Friuli Venezia Giulia and Veneto, whereas it is higher in the Autonomous Province of Bolzano, Abruzzi and Molise.

Noticeably, if this rate also included day hospital admissions as well as rehabilitation and long-stays, the hospitalisation rate would rise from the national average of 146.1 (in 2003) to 215.4, showing an increasing pattern as we move from Northern to Central and Southern Italy. (cf. table 19).

As outlined in table 19, disregarding the low contribution made by rehabilitation and long-stay hospitals, a significant improvement, compared to the hospitalisation rate for acute cases in ordinary hospitalisation, is brought about when taking into consideration day hospital activities (compare the Italian average rate amounting to 146.1 with 208.4, respectively in column 1 and 3 of table 19).

If we consider the regulations set by the State-Regions agreement with regard to optimum standards, it emerges that 80% of the planned ratio of 180 per 1,000 inhabitants could be ascribed to ordinary hospitalisation that is 144/1,000 plus 36 units extra for day hospital (equal to 20%).

The difference between the existing hospitalisation rate for acute cases, which includes day hospital activity in 2003 (208.4) and the target-rate of 180

Table 19 – Hospitalisation rate in relation to the type and length of hospitalisation. Year 2003

Regions	Ordinary hospitalised acute cases (1)		Ordinary and day hospital acute cases hospitalisation (2)		Acute cases and rehabilitation (3)		Acute cases, rehabilitation and long-stay hospitals (4)	
	Hospitalisation rate	Variation	Hospitalisation rate	Variation	Hospitalisation rate	Variation	Hospitalisation rate	Variation
	– Piemonte	111.8	-23,5	170,2	-18,3	177,5	-17,0	179,9
– Valle d'Aosta	115.7	-20.8	161.1	-22.7	161.1	-24.6	161.1	-25.2
– Lombardia	149.1	2.1	211.0	1.3	221.7	3.7	222.9	3.5
– A. P. of Bolzano	180.4	23.4	223.9	7.5	227.9	6.6	231.1	7.3
– A. P. of Trento	115.4	-21.0	162.3	-22.1	176.6	-17.4	183.8	-14.7
– Veneto	130.6	-10.6	191.7	-8.0	196.9	-7.9	199.6	-7.3
– Friuli Venezia Giulia	129.6	-11.3	170.7	-18.1	173.3	-19.0	173.3	-19.6
– Liguria	149.3	2.2	245.7	17.9	251.0	17.4	251.0	16.5
– Emilia Romagna	146.2	0.1	203.7	-2.3	208.0	-2.7	214.9	-0.3
– Toscana	133.7	-8.5	188.9	-9.4	192.0	-10.2	192.7	-10.5
– Umbria	145.1	-0.7	217.5	4.4	222.3	4.0	222.3	3.2
– Marche	138.7	-5.1	183.5	-11.9	185.2	-13.4	187.4	-13.0
– Lazio	154.0	5.4	234.0	12.3	242.5	13.4	243.1	12.9
– Abruzzi	199.7	36.7	263.0	26.2	275.5	28.9	276.4	28.3
– Molise	182.0	24.6	227.3	9.1	231.5	8.3	232.4	7.9
– Campania	143.8	-1.6	203.1	-2.5	205.7	-3.8	207.7	-3.6
– Puglia	166.2	13.8	196.8	-5.6	198.8	-7.0	199.4	-7.4
– Basilicata	126.7	-13.3	183.9	-11.8	185.0	-13.5	185.4	-13.9
– Calabria	147.9	1.2	203.9	-2.1	206.6	-3.3	207.2	-3.8
– Sicilia	158.8	8.7	250.8	20.4	253.0	18.4	253.5	17.7
– Sardegna	157.0	7.5	220.3	5.7	220.6	3.2	221.1	2.6
– North	138.2	-5.4	199.1	-4.5	206.4	-3.4	209.0	-3.0
– Centre	144.7	-0.9	211.5	1.5	217.1	1.5	217.9	1.1
– South	156.8	7.3	218.4	4.8	221.2	3.5	222.2	3.1
– Italy	146.1	-	208.4	-	213.8	-	215.4	-

(1) Rate related to acute cases in ordinary hospitalisation

(2) Rate related to acute cases in ordinary and day hospital

(3) Rate related to acute cases and rehabilitation in ordinary and day hospital

(4) Rate related to the total number of hospitalisations

Source: data processing by Ermeneia – Studi & Strategie di Sistema on data provided by the Italian Ministry of Health – HDF 2003

per 1,000 inhabitants suggests a transfer of services to medical day-care service, as the ratio of day hospital to the total services shows the following:

	Day hospital % activity over the total of acute case services
– USL facilities and Hospital Enterprises	30.0%
– Recognised Institutes (University General Hospitals, Irccs-Hospitalisation and Healthcare, Scientific Institutes, Classified Ecclesiastic Hospitals and USL facilities)	38.9%
– Accredited medical institutions	20.7%

Obviously there is a risk of reducing the number of beds for acute cases in ordinary hospitalisation and shifting patients to day hospitals, as is the case with elderly people, who are forced to attend day hospitals instead of being admitted to hospital for short periods of time.

Moreover, it must be said that if we target quality and proper treatment rather than the need for a reduction in public health expenditure (which could even be attained by setting a maximum number of beds per inhabitant) there are certainly some questions to be asked. For example:

- Which hospitalisation rate is supposed to be "the correct one"?
- Given all types of patients, what hospital services should be included to prevent their transfer from an ordinary hospitalisation to a number of alternative daily hospitalisations?
- As for treatment, how can hospital stays be shortened for the afore-mentioned categories, without developing a parallel and stable local medical care system that ensures regular and adequate health care?

In conclusion, new important issues arise while trying to control expenses. These very issues are linked to the evolution of health care demand. For several reasons (first of all an aging population) these issues arise from the fact that needs and rights to healthcare services must be reinterpreted in the light of budget consolidation, increasing efficiency in healthcare services and a reduction of other expenditures, such as staff expenses (as already explained in Chapter 5).

4. *Differences among the systems*

4.1. **Devolution and citizens' rights**

Healthcare options for the public in relation to their geographical area of reference can be roughly evaluated by using two types of indicators:

- availability of beds to which the number of beds allocated to "medium specialties" has to be added (since the number of beds is not the only relevant data);
- patients' mobility at interregional level, searching for the best hospitalisation solution.

Table 20 outlines the national average reduction in the availability of beds, which is consistent with the trend towards a reduction of hospitalisations, resulting from choices put into practice by the National Health Service. This reduction is more apparent in public hospitals compared with accredited private ones (the former deal more with the Central and Northern parts of the country, the latter with the Central and Southern parts).

Moreover, if we take into account "medium specialties" (cf. the second part of table 20), such as the medical, surgical and rehabilitative fields, with the exclusion of neuropsychiatry, long-stays and other specialties, the situation seems to be more stable compared to the average number of beds available. Even in this case, the weight of accredited private hospitals tends to decrease less compared to public ones, with the usual "facilities exchange": the number of public medical institutions with beds allocated to medium specialties is higher in the Centre and North of Italy, while there are more accredited private institutions in the Centre and South of Italy.

Table 21 compares the "inflows" and "outflows" of interregional mobility which concerns some 900 thousand people per year. Several regions admit patients coming from different areas and others lose local patients. The most "attractive" regions are listed in the following table, with a net value in million euros as a balance between cashed-in and paid services in 2003.

Table 20 – Supply of hospital services in the country. Year 2003

Geographical divisions	Beds		Beds		Beds		Variance compared to national average in public hospitals	Variance compared to national average in accredited private hospitals		
	Population (in public hospitals)		Population (in accredited private hospitals)		Population (in public and accredited private hospitals)					
	Total beds supply (per 1,000 inhabitants)									
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
North	3.53	3.70	0.79	0.79	4.32	4.49	8.1%	7.7	-13.1%	-14.4
Centre	3.34	3.64	1.15	1.20	4.49	4.84	2.5%	5.8	25.6%	31.2
South and Islands	2.89	3.00	0.94	0.93	3.82	3.93	-11.5%	-12.7	2.7%	1.4
Italy	3.26	3.44	0.91	0.92	4.17	4.36	-	-	-	-
	Total beds supply allocated to "medium specialties" ^(a) (per 1,000 inhabitants)									
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
North	3.18	3.35	0.53	0.53	3.72	3.88	6.2%	5.3	-18.9%	-17.1
Centre	3.12	3.43	0.75	0.74	3.87	4.17	4.1%	8.0	13.4%	15.1
South and Islands	2.70	2.83	0.77	0.73	3.47	3.56	-9.9%	-10.9	16.4%	13.4
Italy	3.00	3.18	0.66	0.64	3.65	3.82	-	-	-	-

(a) "Medium specialties" are the medical, surgical and rehabilitative fields, with the exclusion of high specialties, neuropsychiatry and long-stays

Source: data processing by Ermeneia – Studi & Strategie di Sistema on data provided by the Italian Ministry of Health and Aiop

Table 21 – Differences in of healthcare options across the country, assessed according to hospital mobility ^(a). Years 1999-2003

Regions	1999		2000		2001		2002		2003	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
– Piemonte	0.85	1.17	0.85	1.17	0.89	1.13	0.86	1.16	0.86	1.16
– Valle d'Aosta	0.64	1.55	0.53	1.90	0.50	1.98	0.54	1.84	0.53	1.90
– Lombardia	2.22	0.45	2.35	0.43	2.45	0.41	2.59	0.39	2.49	0.40
– A.P. of Trento	0.84	1.20	0.78	1.28	0.75	1.32	0.68	1.46	0.63	1.58
– Veneto	2.07	0.48	1.91	0.52	1.95	0.51	1.91	0.52	1.89	0.53
– Friuli V. Giulia	1.68	0.59	1.54	0.65	1.42	0.70	1.38	0.73	1.41	0.71
– Liguria	1.47	0.68	1.38	0.72	1.28	0.78	1.23	0.81	1.19	0.84
– Emilia Romagna	2.34	0.43	2.17	0.46	2.07	0.48	2.13	0.47	2.22	0.45
– Toscana	2.10	0.48	2.16	0.46	2.14	0.47	2.04	0.49	1.97	0.51
– Umbria	1.58	0.63	1.41	0.71	1.57	0.64	1.67	0.60	1.64	0.61
– Marche	0.98	1.02	1.04	0.96	1.06	0.94	0.98	1.02	0.90	1.11
– Lazio	1.51	0.66	1.47	0.68	1.51	0.66	1.34	0.75	1.35	0.74
– Abruzzi	0.91	1.10	1.05	0.95	1.04	0.96	1.25	0.80	1.34	0.75
– Molise	1.07	0.93	1.04	0.96	1.10	0.91	1.14	0.88	1.09	0.91
– Campania	0.31	3.25	0.33	3.07	0.32	3.16	0.35	2.88	0.37	2.72
– Puglia	0.88	1.13	0.88	1.13	0.82	1.22	0.79	1.27	0.71	1.41
– Basilicata	0.39	2.55	0.44	2.30	0.42	2.39	0.44	2.29	0.44	2.26
– Calabria	0.29	3.44	0.29	3.50	0.30	3.35	0.29	3.43	0.28	3.53
– Sicilia	0.91	1.10	0.20	5.12	0.26	3.91	0.28	3.59	0.29	3.42
– Sardegna	0.48	2.10	0.48	2.07	0.40	2.52	0.47	2.11	0.52	1.92

Data related to the Autonomous Province of Bolzano have not been provided as they are strongly biased by migration (notably Austria)

(a) Mobility has been provided in percentage of acute patients mobility, calculated on the interregional mobility matrixes

Source: data processing by *Ermeneia – Studi & Strategie di Sistema* on data provided by the Italian Ministry of Health

	Inflow index ^(a)	Profit balance (in million euros) between cashed-in and paid services ^(b)
1 st place: Lombardia	2.49	+406.7
2 nd place: Emilia Romagna	2.22	+249.8
3 rd place: Toscana	1.97	+85.2
4 th place: Veneto	1.89	+112.3
5 th place: Lazio	1.35	+51.1

(a) Cf. table 21

(b) Source: data provided by the Department of National Health Fund, 2005

The following table lists in decreasing order the regions where patients mobility to other areas was higher in 2003, the relative net value in million euros based on a balance between paid and cashed-in services is also provided.

	Outflow index ^(a)	Debit balance (in million euros) between paid and cashed-in services ^(b)
1 st place: Calabria	3.53	-192.5
2 nd place: Sicilia	3.42	-203.9
3 rd place: Campania	2.72	-263.7
4 th place: Basilicata	2.26	-56.8
5 th place: Sardegna	1.92	-49.7

(a) Cf. table 21

(b) Source: data provided by the Department of National Health Fund, 2005

What is the citizens' view regarding devolution and its consequences on health protection measures?

Table 22 highlights a confident attitude about devolution, since interviewees feel (in 84.2% of cases) it will be possible to receive the same quality of services – and even better – in the future. Only a small group (15.8%) has a negative view on devolution.

In general, to compensate any decline in quality standards or to meet patients' need to receive *ad hoc* treatment, the opportunity to use hospital facilities outside their own region is always guaranteed and its additional costs are covered by the Regional Health Service. Only 1/5 of Italians claims to be aware of this opportunity, while 43.2% has a vague idea of its existence.

Such opportunity is known to a total of 2/3 of Italians though this does not necessarily mean that patients are able to use extra-regional facilities in case of need.

Table 22 – Health protection and devolution

Cases	Data
– Expected consequences of devolution in the health sector	– Better services: 26.8%
	– Services equal to present: 57.4%
	– Services worse than present: 15.8%
– Awareness of the possibility of using extra-regional hospital services (with the support of Regional Health System for additional costs)	21.8%
– Option of being hospitalised in a different region in case of severe illness	39.6%

Source: data processing by Ermeneia – Studi & Strategie di Sistema, 2005.

However, in case of severe illness the motivation to search for the most adequate hospital facility could easily induce patients to travel outside their region: 39.6% of interviewees are willing to take this option (considering the use of non local, national and foreign facilities). Nevertheless, this percentage could increase considerably (52.6%) if we take into account those who could not express an opinion. Furthermore, this view has grown over the years, as in 2004 percentages were 30.3% and 40.0% respectively. These data confirm that people are increasingly aware when choosing the best options for their individual needs.

4.2. The slow evolution of hospital systems in Europe

Each Country has developed its own hospital system in accordance with long-established traditions, government institutions, welfare policies and various social contexts.

Nevertheless, a joint process is taking place at times encouraged by views expressed by international organisations (such as the World Health Organisation and the European Union) as well as by representative bodies (such as UEHP – European Union of Private Hospitals). It has also been encouraged by a real need to rebalance financing methods and to improve control on hospitalisation costs.

It is in this reality that the DRGs system (*Diagnosis Related Groups*) has spread from the U.S.A. to Canada, Australia and other industrialised countries. The system has gradually been introduced in Europe and in Italy. The law regulating the use of DRGs for the first time dates back to 1994, before being introduced by other countries (though today the system has been fully applied to the private sector operating within the boundaries of the N.H.S and only partially to the public sector).

Due to the diverse national realities, the current situation is quite heterogeneous, as shown in table 23.

On the whole, it is clear that the DRG system is setting off a sort of "long wave" rippling effect everywhere, also sustained by the growing transnational mobility of patients. If this occurs, it is necessary to define the price of the service that has to be refunded by the National Health System of the patient's home Member State.

The fact that some countries are organised in many Regional Health Services (like Germany and Italy) further increases the need for a DRG system, which would simplify inter-regional refunds of hospital services provided in case of mobility within national borders.

It is evident that the above-mentioned factors (an improved financing system, more efficient cost control and support to citizens' freedom of choice with regard to the increasing trend in hospital mobility) would call for a detailed review of the application of a DRG system and/or of methods of analysis, in line with the common interest of National Health Systems to set up a better ratio of quality of hospital services to costs.

Table 24 outlines a further comparison between national realities following the *devolution* issue. This brings about the need to dispose of common means ensuring:

- the fulfilment of citizens' basic needs, in spite of the local reality (in Italy this refers back to what is known as Essential Levels of Healthcare);
- a generally approved method that recognises costs paid by the various hospitals and consequently defines the best financing systems.

Table 23 – The progressive introduction of DRGs in various countries

Country	Year of introduction	Application procedures
Austria	1996 - 2002	<p>In Austria the DRG system was introduced in 1996 and called LFK, following an extensive Government review of all treated cases according to the ICD 9 coding system. In 2002, the system was applied to private hospitals. In contrast with the public sector, where the 9 Provinces allocate funds according to specific "points", the Fund for the private sector allocates resources to all Austrian private hospitals, according to the same "point" value-based system. The value of the point compared to public hospitals, only amounts to 30% of Social Security funds. Private hospitals like public ones are obliged to register hospitalised patients in line with the central system guidelines. Since 2005, an initial increase in the global funding for the private sector has been envisaged, thus boosting the point value (by 5% per point). To obtain the same resource allocated to public hospitals, private hospitals should renounce their management autonomy. 90% of private hospital patients are covered by a private insurance. These insurances make up for 70% of income, and doctors' fees.</p>
Belgium	2006	<p>Running expenses are funded as follows: 50% from the Government ("budget for financial resources") and 45% from the deduction on doctors' fees. <i>Forfeit</i> amounts have been established, they cover part of day hospitals and dialysis expenses. Each hospital has its specific budget funding that covers, at a flat rate, hospitalisation in shared rooms. This allocation increasingly based on "<i>justified</i>" activity, according to the national average length of hospital stays by DRG (APR-DRG version 15.0). In this instance, the case-mix index related to hospital pathologies is taken into account. <i>Therefore it is not a budget (or cost) set for each pathology</i>, and DRGs are simply used to estimate the average length of hospital stays.</p>
France	2004 -2005	<p>By 2006, a percentage of doctors' fees regarding the 26 most frequent surgical pathologies will be financed on a lump-sum basis. It is not yet certain whether these are resources allocated in advanced according to an estimated funding programme.</p> <p>Some twenty years ago, the French model of DRGs (GHS) was progressively introduced in the public and later in the private sector to monitor activities and costs. In 2003, it was established by law their prompt application as a method for tariff-making both in private and public sectors. By January 1 2004, this system was progressively introduced in the public sector and staggered over a 8-year period. In 2012, hospitals will be remunerated via this system, with the exclusion of "missions of general interest" which will remain subjected to a "full allocation" system. As to the private sector, by March 1 2005, medical institutes will be paid according to DRG (GHS). Each medical institute has a specific coefficient calculated to offset the abrupt change caused by the turnover of the old tariff-making system. Public and private sector tariffs are decided on a national level. A convergence is forecasted within 8 years, but it seems unlikely as public sector tariffs are all-inclusive, while private sector tariffs do not include doctors' fees, considered freelancers' fees.</p>

(Cont. from previous page) Table 23 – The progressive introduction of DRG in various countries

Country	Year of introduction	Application procedures
Italy	1995	<p>The legislation introduced in April 1994 did not provide for experimental phases and left the formulation of local tariffs to the Regions. These tariffs are theoretically valid for both the public and private sectors and based upon cost analysis and the U.S. Medicare DRG classification system. In this first phase, maximum tariffs established by the Ministry of Health could indeed be used as a reference. They were then updated in 1997 and are currently in force after being adapted by some Regions. This has resulted in a remuneration system where tariff values are at times slightly different at national level, and only applied to accredited private institutions. One national tariff list is exclusively set up for the compensation of interregional hospital mobility.</p>
United Kingdom		<p>DRGs are not used in the Public sectors in Great Britain, although there are reports concerning testing activities in Wales. Conversely the Public sector employs "Health Resource Groups" (HRG), which are homogeneous resource categories, only used for the central level financing and NOT for single cases.</p> <p>The Private sector (insurance based) strongly objects to DRGs, because they specifically focus on "diagnosis", in spite of resources and costs for single cases. If hospitals were paid by "diagnosis", they should share part of the financial risks and act as if they were insurance companies! These companies, on the other hand, assign a value to the work carried out for each clinical procedure (NOT to the diagnosis), considering surgeons, anaesthesiologists and hospitals separately. These relative "values" are negotiated at central level along with professional bodies and are organised in a grid system. "Weights" within this grid are the same ones used during negotiations by the regions or by the groups of hospitals in order to assign a monetary value that will be refunded by insurance. Doctors may decide to charge more, but they should expect opposition. The system is widely known as "procedure planning".</p> <p>When payments are made within the EU, they tend to be based upon full refunding (private sector) or upon negotiated contracts - by procedure or by "cost & volume" (public sector). As DRGs are not applied, nor wanted, it is impossible to make a comparison with other countries.</p> <p>As for specific contracts with the private sector, as suppliers are based everywhere, the aim is to agree on the "right cost" that suits all possible situations, rather than referring to the average historical costs that calls for more arbitrary margins.</p>

Source: survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table 24 – Different types of devolution in various countries

Country	Central and local competences
Austria	<p>The system has been applied, following a trial period in 19 public hospitals where data on 300,000 patients were collected. On the basis of this evidence, 1,200 homogeneous cost groups have been established (a part refers to the length of hospital stay and another one refers to both specific medical (technical) and diagnostic treatments and to methods. In addition, local authorities (Provinces) have introduced the so-called "steering points". Virtually, such decision was taken by the Financing Funds of these Local Authorities (a committee chaired by the Chief Executive of the province). The afore-mentioned criteria are the main reasons for the multiplication of points, related to the services supplied by the hospitals. The weight of the point is also established by the provincial committee and can differ from one hospital to another in a town or province. As for private hospitals, where this system was introduced in 2002, only the part of the point related to the average length of hospital stay and of more important medical treatment (MEL) is considered relevant. Every year an update of homogeneous cost groups is carried out on the basis of data provided by hospitals, while for emerging methods, the decision of medical associations and universities is taken into account. Social security covers for a fixed fee to treat in-patients in each province on a yearly basis. Therefore the value of points decreases, as the number of patients and points increases. Provinces have to cover the difference directly and this situation can lead to a change in the planning and the structure of hospitals and services in the province. Social security financial contribution only increases when revenues from insured staff rise.</p>
Belgium	<p>The process of federalisation of Belgium had an impact on the hospital system: the awareness that hospitals are subjected to multiple levels of responsibility, despite a single federal legislation. The Federal Authority is competent for hospital <i>financing</i> and for outlining planning and accreditation <i>rules</i>. On the contrary Regional authorities are responsible for medical institutions accreditation (in compliance with federal legislation), <i>managing individual files</i>, enforcing <i>current federal legislation on planning and accreditation</i> and <i>allocating grants</i> for construction and redecoration.</p>
France	<p>Since 1996, hospital full authority was decentralised and delegated to Regional Hospital Agencies, whose Chief Executive is appointed by the Minister of Health. The Chief Executive has significant powers in terms of planning and is helped by an Executive Committee that represents State bodies and Health Insurance. This role included a certain degree of freedom in deciding hospital tariffs and "overall equipment", however the introduction of a tariff-making method based upon national rates has significantly reduced the CEO margins for manoeuvre. Accreditation is now a national procedure, subject to the authority of a specific Agency, which is also responsible for evaluating medical files.</p>

(Cont. from previous page) **Table 24 – Different types of devolution in various countries**

Country	Central and local competences
Italy^(a)	<p>The main guiding principles are given by the State: Basic Levels of Health Care at national level and general guidelines for hospital equipment. Regions are responsible for health care according to the Italian legislative system. Regions set their tariffs, define modalities for hospital accreditation and determine the necessary technological equipment and organisation of both public and private institutions.</p>
United Kingdom	<p>In the public sector, various types of devolution are under testing procedures. In the United Kingdom (England, Wales, Scotland and Northern Ireland) these are currently in progress in the NHS areas which have separate political responsibilities and a number of similar rights. The estimated budget is planned by the concerned area and financial allocations are granted afterwards following half-independent "funds" for acute case services, first aid, mental health, ambulances, etc. The aim is an effective management and budget control which are tailored to patients. Standards are set at central level.</p> <p>In the private sector, decisions are made by insurance companies and groups of hospitals at national level (the UK is the most active market for private insurance companies). Some Insurance companies have accredited a number of hospitals, which are similar to a network of "favourite suppliers" that offer a good coverage to people insured in the UK. The HMO system (used in the U.S.A.) has not been adopted. Therefore people insured by company "X" can use hospitals of company "Y" and vice versa. Hospital standards are established at central level.</p> <p>Sometimes, the public sector entrusts responsibilities (through a negotiated contract) to private sector suppliers – for example to find substitute medical staff during night duty or to assist patients who need specific treatment. The expense can then be transferred through private financing schemes and activity contracts, similar to grants.</p> <p>When the public sector buys services from other EU Countries, a main Regional Fund is created in order to manage agreements (these agreements must be honoured by other Funds). A Fund has been implemented for existing and new EU members</p>

(a) Attribution of competence, provided for the 1947 Constitution, was implemented by the National Health System in 1978. The powers and competence of Regions have been reinforced with the Law n.3 of 18/10/01.

Source: survey by Ermeneia – Studi & Strategie di Sistema, 2005

5. *A set of indicators for the supply and demand of hospital services*

As for last year, a set of indicators was established to monitor the existence and performance of a mixed public/private system.

It has been mentioned several times – also in this Report – that this system tends to reflect reality rather than a set of regulations.

However, the gradual progression of a mixed system is clearly evident by:

- a steady growth of the relevant weight of the accredited private sector (facilities, beds, patients, in-hospital days and staff);
- a growth in the quality of public and private hospital services as perceived by citizens (where the private sector is rapidly catching up);
- a growth in citizens' freedom of choice with regard to the hospital facilities they intend to use.

As for the three above-mentioned trends, a dedicated index has been established to measure, on a yearly basis, the evolution of a mixed hospital system, where the following factors play a key and parallel role:

- greater freedom of choice for citizens;
- equal conditions of service supply and higher chances for private medical institutions to compete with public ones (with regard to tariff-making, financing policies and a strict service evaluation);
- greater geographical integration of the different services supplied, similarly to what is already occurring for reduction of waiting time, hospitals stays in rehabilitation and prosthetic activities.

The following table outlines the first of these three Indexes which measure the quantitative growth of the accredited private sector compared to the public one, on the basis of data related to supply (table 25).

As outlined in the above table, 5 quality components and 1 quantity element have been used in order to define the Index. The quality element is predominant because its weight is 2.5-10 times greater than the previously considered factors.

Table 25 – Definition of an Aiop Index on the progression of a mixed public/private system

Index components	2005 (data 2003)	2004 (data 2002)	2003 (data 2001)
1) The ratio of the number of private hospitals (accredited medical institutions) to the total number of Italian hospitals	41.5	41.2	40.5
2) The ratio of the number of beds in private hospitals (accredited medical institutions) to the total number of beds in Italian hospitals	20.7	19.7	19.0
3) The ratio of the number of patients in private hospitals (accredited medical institutions) to the total number of patients in Italian hospitals	16.3	15.3	14.6
4) The ratio of the number of in-hospital days in private hospitals (accredited medical institutions) to the total number of in-hospital days in Italian hospitals	19.1	18.4	17.5
5) The ratio of the number of health workers in private hospitals (accredited medical institutions) to the number of workers in Italian hospitals	11.7	11.6	11.5
6) The average weight of services offered in private hospitals (accredited medical institutions) associated with Aiop (multiplied by 100)	119.0	114.0	109.0
Aiop Index/1 on offer (by accredited hospitals and services)	228.3	220.2	212.1

Source: survey by *Ermeneia – Studi & Strategie di Sistema*, 2005

The final result (228.3 in 2005) confirms an increasing trend compared to the past two years (220.2 in 2004 and 212.1 in 2003). This demonstrates the progressive strengthening of the accredited private sector and a partial re-balancing of the public one.

The second Index was subsequently defined with the purpose of recording citizens satisfaction levels with regard to hospital services previously used.

The following issues clearly affect the answers that contribute to the definition of the indicators:

- laying the foundations for quality in both public and private institutions;
- the increase in the quality of services, mainly in the accredited private hospitals that are now dealing with highly-specialised DRGs, are equipped with state-of-the-art instruments, manage the prosthetic activity in rehabilitation and enter agreements with the Public Sector to shorten waiting lists;
- the increasing awareness on the part of families, who have now learnt to use the hospital system as a whole, be it public or private.

Given the above-mentioned issues, three types of public opinion – expressed during the period under examination – were selected to define the Index (table 26). These are as follows:

- the level of satisfaction expressed by people who have actually been hospitalised over the past twelve months;
- the common practice of choosing the same facilities over and over again among people who have been hospitalised over the past twelve months;
- the level of satisfaction with Italian hospitals expressed by the general national sample, and not just by those who have been hospitalised over the past twelve months.

This information has been related to a (theoretical) highest positive evaluation equal to 100% of satisfaction, and then calculated per 1,000 to define a more comprehensible Index. The result shows a high level of satisfaction for each type: public hospitals, accredited private hospitals and private clinics, with an Index fluctuating between 723.7 and 828.7.

However, the highest value is by far the one concerning private hospitals (accredited medical institutions). The same has occurred over the past two years (although a slight decrease was recorded in 2004).

In addition, a slight reduction in the satisfaction index regarding private clinics should be noted as it follows last year's trend.

Finally, the third Index was calculated (table 27) to measure the freedom of choice and preferences as perceived by citizens. Eight elements have contributed to this calculation:

- the knowledge of choice opportunities (1 + 2);

Table 26 – Definition of a citizens' satisfaction Index on hospital services

Index components	2005	2004	2003	(theoretical) maximum % reachable
1) satisfaction expressed by people who have used hospital services over the past twelve months (opinion Very + Fairly satisfied ^(a))				
▪ in public hospitals	83.4	84.3	81.5	100.0
▪ in private hospitals (accredited medical institutions)	94.0	91.4	88.2	100.0
▪ in private clinics	90.7	84.6	93.2	100.0
2) the tendency to repeatedly use the same medical institutions ^(a) :				
▪ public hospitals	78.1	75.7	75.5	100.0
▪ private hospitals (accredited medical institutions)	74.9	66.7	74.5	100.0
▪ private clinics	60.7	76.8	75.5	100.0
3) Satisfaction level on Italian hospitals expressed by the general national sample (and not just by people who have been hospitalised over the last twelve months) ("Very + Fairly in agreement with") ^(a) :				
▪ public hospitals	66.0	65.9	67.0	100.0
▪ private hospitals (accredited medical institutions)	79.7	79.3	82.0	100.0
▪ private clinics	65.7	69.1	67.5	100.0
Gross total:				
▪ public hospitals	227.5	225.9	224.0	300.0
▪ private hospitals (accredited medical institutions)	248.6	237.4	244.7	300.0
▪ private clinics	217.1	230.5	236.2	300.0
Aiop Index/2 on demand (satisfaction on hospital services) ^(c)				
▪ public hospitals	758.3	753.0	746.7	1,000.0
▪ private hospitals (accredited medical institutions)	828.7	791.3	815.7	1,000.0
▪ private clinics	723.7	768.3	787.3	1,000.0

(a) Sub-sample with recorded experience of hospital services over the past twelve months

(b) General sample, with/without recorded experience of hospital services over the past twelve months

(*) Gross total weighed on 1,000

Source: survey by *Ermeneia – Studi & Strategie di Sistema*, 2005

Table 27 – Definition of an Index according to the freedom of choice of hospital services as requested by citizens

Indicator components	Answer in %		Maximum (theoretical) reachable %
	2005	2004	
1. Awareness of choice options, at equal costs: "yes, definitely" ^(a)	28.0	25.6	100.0
2. Use of the choice options: average between public and private (accredited) hospitals and non-accredited private hospital "I have taken into consideration all possibilities in advance" ^(b)	23.9	25.4	100.0
3. Availability within the local area of a wide choice range of public and private (accredited) hospitals and option to choose what is required: (opinion "Very strongly + Fairly strongly in agreement with") ^(a)	63.8	64.4	100.0
4. Willingness to use non-local health care to obtain optimal treatment: "I would look for a hospital outside my town" ^(a)	56.5	54.9	100.0
5. Importance of reasons attributed to healthcare rather than hospital type (public or private): "accredited private hospitals are now part of the hospital system: when you need to be hospitalised it does not matter whether it is a public or an accredited private institution, other factors are more relevant, such as the presence of specialisations, quality of services, distance from home, etc. (opinion "Very strongly + Fairly strongly in agreement with")	86.3	87.2	100.0
6. Demand for hospitals organised in a "mixed system": "it is right that the National Health Service uses at its best all the hospital facilities in the area in order to allow citizens to choose on the basis of their needs" ^(a)	76.0	72.0	100.0
7. Information on choice options: "there is little awareness about the various hospitalisation options offered by the accredited private sector therefore the Region or USL (Local Health Units) should invest in advertising campaigns to support citizens' free choice" (opinion "Very strongly + Fairly strongly in agreement with")	78.6	79.3	100.0
8. Willingness to pay additional costs in order to obtain freedom of choice: "it would be important if citizens had the option to choose between public and private (accredited hospitals, with an equal availability of specialties in both sectors, even if this involves paying more taxes or paying higher direct costs both in public or private medical institutions" ^(a)	37.9	39.3	100.0
Gross total	451.0	448.1	800.0
Aiop Index/3 on the freedom of choice perceived by citizens^(*)	563.8	560.1	1.000.0

(a) General sample with recorded experience of hospital services during the past twelve months

(a) Sub-sample with recorded experience of hospital services during the past twelve months

(*) Previous gross total compared to 1,000

Source: survey by Ermeneia – Studi & Strategie di Sistema, 2005

- the availability within the geographical area of a real choice of public and accredited private hospitals (3);
- the willingness to use non-local healthcare facilities (4);
- the quality of services regarded as the key element, regardless of the hospital being public, accredited private or non-accredited (5);
- the explicit demand for a homogeneous hospitalisation system (6);
- the demand for more information in order to exercise freedom of choice (7);
- and finally, the willingness to bear additional costs in order to benefit from a wider range of choice between public or (accredited) private hospitals within the area (8).

All these data have been weighed on 1,000 in order to create a more comprehensible abstract value as in the previous case, thus obtaining an Index of 563.8 for 2005 which indicates a slight increase compared to the values of 2004. This proves that the public is increasingly willing to use various options as regards healthcare.

Part II

Italian hospital system through indicators

1. *Structural data*

1.1. **The presence of public and accredited private medical institutions**

An overview of the past five years (1999-2003) shows that the total number of public and private accredited hospitals has decreased by 5.1% (from 1,344 to 1,276 units). The main reasons are:

- a reduction of directly managed hospitals in the public sector (-10.9%) and a complete shutdown of residual mental health facilities;
- a slight decrease (-0.2%) over the same period (1999-2003) in the number of accredited private medical institutions. These, however, have generally remained unvaried, 530 units, in fact, are currently running (in contrast with the 746 units in public medical institutions that have been steadily decreasing over the past years).

The ratio of public to private hospitals (accredited medical institutions) is 58.5% and 41.5% respectively, as confirmed by average national data (table S/4). However, a difference has emerged at local level:

- in the North, accredited private hospitals are outnumbered by the public ones;
- in the Centre and particularly in the South, the situation is the opposite: the number of private medical institutions is rising while the number of public ones is decreasing.

If we consider the public/private ratio per region, we can easily notice where public institutions are the majority and where a balanced proportion – “quasi mixed system” – between private and private sector is reached (table S/4):

- public medical institutions are mainly concentrated in the Autonomous Province of Trento and in several regions such as Valle d’Aosta, Veneto, Friuli Venezia Giulia, Liguria, Umbria, Marche, Molise, Puglia, Basilicata and Sardegna;

- a “quasi-mixed system” (where the different medical institutions are more balanced) is emerging significantly in Piemonte, Lombardia, Emilia Romagna, Lazio, Campania and Calabria.

1.2. Bed distribution

If we take into account the number of beds instead of the number of public or private medical institutions, it emerges that in Italy there were 236,000 beds in 2003. By considering this total over a stable time span it appears that 79% of beds are in the public sector and 21% in the accredited private one (table S/5).

Bed distribution for public institutions is higher in Northern Italy, whereas in the Centre and in the South the same is true for private medical institutions.

As a matter of fact, percentage data in table S/5 show a slight decrease in the number of beds in the public sector in both Northern and Southern Italy. At the same time, we can record an increase in the number of beds in the private sector: a trend that is confirming the progression towards a "mixed system", mentioned so many times in this Report.

As to bed distribution per Region (as shown by the percentage data in table S/5), we notice that public supply is higher in Veneto (92.7%), Liguria (98.2%), Umbria (92.1%), Molise (88.7%), Basilicata (96.9%). On the contrary, bed supply in accredited medical institutions is higher mainly in Emilia Romagna (23.7%), Lazio (33.5%), Abruzzi (28.2%), Campania (36.1%) and Calabria (32.3%).

Within the accredited private sector, Aiop members supply over 42,000 beds out of a total of over 50,000, a significant percentage of 84.2% (table S/6).

The regional distribution of accredited medical institutions members of Aiop (data updated to 2005) highlights a nosological concentration as shown by the following figures (table S/7):

- in the multi-specialist field (200 institutions out of 472);
- in the surgical field (91 institutions out of 472);
- in the neuropsychiatric field (58 institutions out of 472);
- in the rehabilitative field (46 institutions out of 472);
- in the long-stay patients field (26 institutions out of 472).

Conversely, if we consider the different types of activity (cf. tables S/8 and S/9) within institutions members of Aiop (for 2005), the highest occurrence on a national level regards the surgical field, medical field, rehabilitative field, neuropsychiatric field and long-stays field in decreasing order (reference is made to private hospitals – accredited institutions).

1.3. Medical equipment

The status of technical and biomedical equipment for diagnosis and treatment is shown in table S/10 (public medical institutions), in table S/11 (accredited medical institutions) and in table S/12 (non-accredited medical institutions).

In order to understand the list of structural data on the technical and biomedical equipment mentioned in the above tables, a specific table is included and explained in paragraph 1.3 of Part I ("The steady progression of a system logic").

The aim was to demonstrate the extent to which private hospitals contribute to offering advanced technological services within the emerging "mixed system".

Table S/10 (public medical institutions) shows how most of the necessary high-tech equipment (Hyperbaric Chamber - HC, Computerized Axial Tomograph - CAT, Haemodialysis Unit - HDU, Magnetic Resonance Imaging unit - MRI and Linear Accelerator - LINAC) is mainly located in hospitals in Northern Italy, except for the number of Hyperbaric Chambers which is larger in Southern Italy.

Table S/11 shows how private medical institutions "compensate" for this situation by providing significant quantities of technical and biomedical equipment in the South, rather than in other areas of the country (Hyperbaric Chamber, Computerized Axial Tomograph, Haemodialysis Unit, Magnetic Resonance Imaging unit and Linear Accelerator).

Table S/1 – Variation in the number of public and private medical institutions (accredited medical institutions)

	1999		2000		2001		2002		2003	
	a.v.	%	a.v.	%	a.v.	%	a.v.	%	a.v.	%
– Hospital enterprises	98	7.3	98	7.4	100	7.6	102	7.9	98	7.7
– Directly managed hospitals	599	44.6	573	43.4	567	43.3	541	42.1	534	41.8
– University hospitals	10	0.7	10	0.8	10	0.8	11	0.8	11	0.9
– Scientific institutes	49	3.6	49	3.7	49	3.7	49	3.8	50	3.9
– Classified church-run hospitals	39	2.9	38	2.9	38	2.9	38	3.0	38	3.0
– USL facilities	15	1.1	14	1.1	12	0.9	12	0.9	14	1.1
– Research agencies	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1
– <i>Partial total amount</i>	813	60.5	785	59.4	778	59.5	755	58.7	746	58.5
– Private hospitals (accredited medical institutions)	531	39.5	536	40.6	530	40.5	531	41.3	530	41.5
Gross total	1,344	100.0	1,321	100.0	1,308	100.0	1,286	100.0	1,276	100.0

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/2 – Variation in the number of public and accredited private medical institutions (increase %)

	2000/1999	2001/2000	2002/2001	2003/2002	2003/1999
– Hospital enterprises	0.0	2.0	2.0	-3.9	0.0
– Directly managed hospitals	-4.3	-1.0	-4.6	-1.3	-10.9
– University hospitals	0.0	0.0	10.0	0.0	10.0
– Scientific institutes	0.0	0.0	0.0	2.0	2.0
– Classified church-run hospitals	-2.6	0.0	0.0	0.0	-2.6
– USL facilities	-6.7	-14.3	0.0	16.7	-6.7
– Research agencies	0.0	0.0	0.0	0.0	0.0
– <i>Partial total amount</i>	-3.4	-0.9	-3.0	-1.2	-8.2
– Private hospitals (accredited medical institutions)	0.9	-1.1	0.2	-0.2	-0.2
General total	-1.7	-1.0	-1.7	-0.8	-5.1

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/3 – Public medical institutions and accredited private medical institutions per region. Year 2003 (a.v.)

Regions	Hospital enterprises	Directly managed hospitals	University hospitals	Scientific institutes	Classified church-run hospitals	USL facilities	Research agencies	Total	Private hospitals (accredited institutions)
– Piemonte	7	25	-	2	6	5	-	45	39
– Valle d'Aosta	-	1	-	-	-	-	-	1	-
– Lombardia	29	1	-	18	6	1	-	55	57
– A. P. of Bolzano	-	7	-	-	-	-	-	7	6
– A. P. of Trento	-	11	-	-	2	-	-	13	5
– Veneto	2	61	-	1	8	4	-	76	17
– Friuli Venezia Giulia	3	12	1	2	-	-	-	18	5
– Liguria	3	10	-	3	2	-	-	18	2
– Emilia Romagna	5	22	-	1	-	1	-	29	43
– Toscana	4	36	-	3	-	-	1	44	29
– Umbria	2	9	-	-	-	-	-	11	5
– Marche	4	30	-	3	-	-	-	37	12
– Lazio	5	52	3	7	8	2	-	77	85
– Abruzzo	-	22	-	-	-	-	-	22	13
– Molise	-	6	-	1	-	-	-	7	3
– Campania	8	51	2	2	3	-	-	66	71
– Puglia	2	61	-	4	2	-	-	69	26
– Basilicata	2	7	-	-	-	-	-	9	1
– Calabria	4	32	-	1	-	-	-	37	38
– Sicilia	17	49	3	1	1	1	-	72	60
– Sardegna	1	29	2	1	-	-	-	33	13
North	49	150	1	27	24	11	-	262	174
Centre	15	127	3	13	8	2	1	169	131
South	34	257	7	10	6	1	-	315	225
Italy	98	534	11	50	38	14	1	746	530

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table S/4 – Public medical institutions and accredited private medical institutions per region. Year 2003/2002 (% composition)

Regions	2003								2002		Total of public medical institutions	
	Hospital enterprises	Directly managed hospitals	University hospitals	Scientific institutes	Classified church-run hospitals	USL facilities	Research agencies	Total of public medical institutions	Private hospitals (accredited)	Total of public medical institutions		Private hospitals (accredited)
– Piemonte	8.3	29.8	-	2.4	7.1	6.0	-	53.6	46.4	53.1	46.9	100.0
– Valle d'Aosta	-	100.0	-	-	-	-	-	100.0	-	100.0	-	100.0
– Lombardia	25.9	0.9	-	16.1	5.4	0.9	-	49.1	50.9	50.9	49.1	100.0
– A. P. of Bolzano	-	53.8	-	-	-	-	-	53.8	46.2	53.8	46.2	100.0
– A. P. of Trento	-	61.1	-	-	11.1	-	-	72.2	27.8	73.7	26.3	100.0
– Veneto	2.2	65.6	-	1.1	8.6	4.3	-	81.7	18.3	82.6	17.4	100.0
– Friuli V. Giulia	13.0	52.2	4.3	8.7	-	-	-	78.3	21.7	79.2	20.8	100.0
– Liguria	15.0	50.0	-	15.0	10.0	-	-	90.0	10.0	90.0	10.0	100.0
– Emilia R.	6.9	30.6	-	1.4	-	1.4	-	40.3	59.7	47.5	52.5	100.0
– Toscana	5.5	49.3	-	4.1	-	-	1.4	60.3	39.7	61.6	38.4	100.0
– Umbria	12.5	56.3	-	-	-	-	-	68.8	31.3	68.8	31.3	100.0
– Marche	8.2	61.2	-	6.1	-	-	-	75.5	24.5	74.5	25.5	100.0
– Lazio	3.1	32.1	1.9	4.3	4.9	1.2	-	47.5	52.5	46.6	53.4	100.0
– Abruzzo	-	62.9	-	-	-	-	-	62.9	37.1	62.9	37.1	100.0
– Molise	-	60.0	-	10.0	-	-	-	70.0	30.0	77.8	22.2	100.0
– Campania	5.8	37.2	1.5	1.5	2.2	-	-	48.2	51.8	47.5	52.5	100.0
– Puglia	2.1	64.2	-	4.2	2.1	-	-	72.6	27.4	72.0	28.0	100.0
– Basilicata	20.0	70.0	-	-	-	-	-	90.0	10.0	90.0	10.0	100.0
– Calabria	5.3	42.7	-	1.3	-	-	-	49.3	50.7	49.3	50.7	100.0
– Sicilia	12.9	37.1	2.3	0.8	0.8	0.8	-	54.5	45.5	54.3	45.7	100.0
– Sardegna	2.2	63.0	4.3	2.2	-	-	-	71.7	28.3	71.7	28.3	100.0
North	11.2	34.4	0.2	6.2	5.5	2.5	-	60.1	39.9	61.7	38.3	100.0
Centre	5.0	42.3	1.0	4.3	2.7	0.7	0.3	56.3	43.7	56.1	43.9	100.0
South	6.3	47.6	1.3	1.9	1.1	0.2	-	58.3	41.7	58.0	42.0	100.0
Italy	7.7	41.8	0.9	3.9	3.0	1.1	0.1	58.5	41.5	58.8	41.2	100.0

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table S/5 – Beds used for hospital stays per region in public and private accredited medical institutions. Year 2003

Regions	2003					2002		
	Public medical institutions ⁽¹⁾		Private hospitals (accredited medical institutions)		Total	Public medical institutions	Private hospitals (accredited institutions)	Total
	Beds	% on the total	Beds	% on the total		% on the total	% on the total	
– Piemonte	13,790	79.5	3,554	20.5	17,344	80.7	19.3	100.0
– Val d'Aosta	425	100.0	-	-	425	100.0	-	100.0
– Lombardia	30,132	78.3	8,357	21.7	38,489	79.1	20.9	100.0
– A. P. of Bolzano	1,937	86.2	309	13.8	2,246	86.2	13.8	100.0
– A. P. of Trento	1,811	78.4	498	21.6	2,309	80.7	19.3	100.0
– Veneto	17,920	92.7	1,418	7.3	19,338	93.7	6.3	100.0
– Friuli Venezia Giulia	4,500	88.0	616	12.0	5,116	88.9	11.1	100.0
– Liguria	5,419	98.2	102	1.8	5,521	98.6	1.4	100.0
– Emilia Romagna	14,266	76.3	4,421	23.7	18,687	76.0	24.0	100.0
– Toscana	11,478	84.3	2,139	15.7	13,617	86.0	14.0	100.0
– Umbria	2,569	92.1	219	7.9	2,788	92.5	7.5	100.0
– Marche	4,822	85.1	841	14.9	5,663	85.1	14.9	100.0
– Lazio	17,593	66.5	8,881	33.5	26,474	66.3	33.7	100.0
– Abruzzo	4,219	71.8	1,654	28.2	5,873	75.6	24.4	100.0
– Molise	1,435	88.7	183	11.3	1,618	93.9	6.1	100.0
– Campania	11,264	63.9	6,376	36.1	17,640	66.8	33.2	100.0
– Puglia	13,602	87.6	1,930	12.4	15,532	88.0	12.0	100.0
– Basilicata	1,853	96.9	60	3.1	1,913	97.5	2.5	100.0
– Calabria	6,891	67.7	3,291	32.3	10,182	60.5	39.5	100.0
– Sicilia	14,242	77.5	4,135	22.5	18,377	78.9	21.1	100.0
– Sardegna	5,703	79.9	1,434	20.1	7,137	80.7	19.3	100.0
North	90,200	82.4	19,275	17.6	109,475	83.4	16.6	100.0
Centre	36,462	75.1	12,080	24.9	48,542	75.9	24.1	100.0
South	59,209	75.6	19,063	24.4	78,272	76.5	23.5	100.0
Italy	185,871	78.7	50,418	21.3	236,289	79.6	20.4	100.0

(1) Please see table S/3

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table S/6 – Private hospitals (accredited institutions) operating within the National Health Service, divided per region – Institutions and beds. Year 2003

Regions	Aiop		Aris		Other		Total	
	Institutes	Beds	Institutes	Beds	Institutes	Beds	Institutes	Beds
– Piemonte	29	2,558	5	557	5	439	39	3,554
– Lombardia	34	5,209	13	1,398	10	1,750	57	8,357
– A. P. of Bolzano	2	131	2	80	2	98	6	309
– A. P. of Trento	2	260	3	238	-	-	5	498
– Veneto	16	1,298	-	-	1	120	17	1,418
– Friuli Venezia G.	5	616	-	-	-	-	5	616
– Liguria	2	102	-	-	-	-	2	102
– Emilia Romagna	42	4,367	-	-	1	54	43	4,421
– Toscana	20	1,591	9	548	-	-	29	2,139
– Umbria	4	159	1	60	-	-	5	219
– Marche	10	701	2	140	-	-	12	841
– Lazio	68	7,741	5	392	12	748	85	8,881
– Abruzzo	10	1,064	1	70	2	520	13	1,654
– Molise	1	48	-	-	2	135	3	183
– Campania	68	6,207	-	-	3	169	71	6,376
– Puglia	23	1,810	-	-	3	120	26	1,930
– Basilicata	1	60	-	-	-	-	1	60
– Calabria	37	3,241	-	-	1	50	38	3,291
– Sicilia	54	3,846	-	-	6	289	60	4,135
– Sardegna	13	1,434	-	-	-	-	13	1,434
North	132	14,541	23	2,273	19	2,461	174	19,275
Centre	102	10,192	17	1,140	12	748	131	12,080
South	207	17,710	1	70	17	1,283	225	19,063
Italy	441	42,443	41	3,483	48	4,492	530	50,418
%	83.2	84.2	7.7	6.9	9.1	8.9	100.00	100.00

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health, registry office 2003

Table S/7 – Regional distribution of medical institutions members of Aiop selected according to main specialisation field. Year 2005

Regions	Multi-specialist		Medical		Surgical		Neuropsychiatric		Long-stays		Rehabilitative		Elderly homes (RSA) ^(a)		Total private institutions		Rehabilitation centres	
	Accr.	Non-accr.	Accr.	Non-Accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.
– Piemonte	12	2	-	-	-	-	7	-	4	-	7	-	-	-	30	2	1	-
– Lombardia	26	4	2	-	4	2	1	-	-	-	4	3	3	-	40	9	2	-
– A. P. of Bolzano	1	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	1	-
– A. P. of Trento	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	-	1	-
– Veneto	11	2	1	-	2	1	4	-	-	-	3	-	-	-	21	3	-	-
– Friuli V. Giulia	4	-	-	-	-	-	-	-	-	-	1	-	-	-	5	-	-	-
– Liguria	1	1	-	-	-	-	1	-	-	1	1	-	-	-	3	2	1	-
– Emilia Romagna	23	2	1	-	1	1	6	-	3	-	7	-	-	-	41	3	1	-
– Toscana	7	1	1	-	5	1	3	-	4	-	-	-	-	-	20	2	-	-
– Umbria	2	1	-	-	2	-	-	-	-	-	-	-	-	-	4	1	-	-
– Marche	8	-	-	-	-	-	2	-	-	-	-	-	-	-	10	-	1	-
– Lazio	21	14	7	-	9	4	11	-	10	-	10	-	12	-	80	18	5	-
– Abruzzo	7	-	-	-	1	-	-	-	-	-	2	-	-	-	10	-	1	-
– Molise	1	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	1	-
– Campania	29	-	2	-	22	1	8	-	4	-	4	-	-	1	69	2	2	-
– Puglia	9	2	8	-	3	1	3	-	-	-	-	1	-	-	23	4	4	-
– Basilicata	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-
– Calabria	15	-	4	-	9	-	5	-	-	-	4	-	5	-	42	-	3	-
– Sicilia	17	-	3	-	26	-	7	-	-	-	1	-	-	-	54	-	1	-
– Sardegna	6	-	2	-	5	-	-	-	-	-	-	-	-	-	13	-	-	-
North	78	11	4	-	7	4	19	-	8	1	25	3	3	-	144	19	7	-
Centre	38	16	8	-	16	5	16	-	14	-	10	-	12	-	114	21	6	-
South	84	2	19	-	68	2	23	-	4	-	11	1	5	1	214	6	12	-
Italy	200	29	31	-	91	11	58	-	26	1	46	4	20	1	472	46	25	-

^(a) Residenze Sanitarie Assistenziali

Source: Aiop

Table S/8 – Regional bed distribution in medical institutions members of Aiop according to the type of activity. Year 2005

Regions	High speciality		Medical		Surgical		Neuropsychiatric		Long-stays		Rehabilitative		Elderly homes (RSA) ^(a)		Total		Rehabilitation centres	
	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.
	– Piemonte	7	12	456	163	450	255	552	63	456	18	789	62	-	-	2,710	573	40
– Lombardia	218	25	1,688	145	2,617	297	68	30	33	20	1,407	201	213	-	6,244	718	120	-
– A. P. of Bolzano	-	-	45	-	-	11	-	-	44	2	42	2	-	-	131	15	74	-
– A. P. of Bolzano	-	-	-	-	-	-	-	-	130	34	140	22	-	-	270	56	49	-
– Veneto	-	15	584	175	770	332	309	48	108	7	451	48	-	-	2,222	625	-	-
– Friuli V. G.	-	13	258	1	340	114	-	-	-	-	72	30	28	-	698	158	-	-
– Liguria	15	-	22	19	15	70	28	2	-	14	65	12	-	-	145	117	25	-
– Emilia Romagna	91	10	1,153	22	1,519	119	590	-	548	-	763	-	-	-	4,664	151	70	-
– Toscana	17	-	308	60	646	130	135	-	281	-	303	18	-	-	1,690	208	-	-
– Umbria	-	-	25	-	166	50	-	-	-	-	-	-	-	-	191	50	-	-
– Marche	-	-	299	61	295	171	94	24	55	-	-	-	-	-	743	256	40	-
– Lazio	42	86	1,636	527	2,025	899	946	25	1,504	50	2,432	74	1,747	-	10,332	1,661	413	-
– Abruzzo	-	10	312	161	454	191	100	-	-	-	154	132	-	-	1,020	494	70	-
– Molise	-	-	123	4	40	-	-	-	-	-	45	-	-	-	208	4	200	-
– Campania	135	22	1,212	251	2,816	581	901	67	465	25	790	127	50	-	6,369	1,073	76	-
– Puglia	42	124	1,007	104	596	173	95	-	15	10	95	189	-	-	1,850	600	495	35
– Basilicata	-	-	-	-	60	-	-	-	-	-	-	-	-	-	60	-	-	-
– Calabria	57	-	1,036	106	1,349	105	444	37	80	2	407	2	219	-	3,592	252	124	1
– Sicilia	111	-	1,549	6	1,947	10	174	-	-	-	289	-	-	-	4,070	16	85	-
– Sardegna	-	30	622	75	793	140	-	-	139	22	-	-	-	-	1,554	267	-	-
North	331	75	4,206	525	5,711	1,198	1,547	143	1,319	95	3,729	377	241	-	17,084	2,413	378	70
Centre	59	86	2,268	648	3,132	1,250	1,175	49	1,840	50	2,735	92	1,747	-	12,956	2,175	453	0
South	345	186	5,861	707	8,055	1,200	1,714	104	699	59	1,780	450	269	-	18,723	2,706	1,050	36
Italy	735	347	12,335	1,880	16,898	3,648	4,436	296	3,858	204	8,244	919	2,257	-	48,763	7,294	1,881	106

^(a) Residenze Sanitarie Assistenziali

Source: Aiop

Table S/9 – Regional bed distribution in medical institutions members of Aiop according to the type of activity and region. Year 2005 (% composition)

Regions	High specialty		Medical		Surgical		Neuropsychiatric		Long-stays		Rehabilitative		Elderly homes (RSA) ^(a)		Total	
	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.	Accr.	Non-accr.
– Piemonte	0.3	2.1	16.8	28.4	16.6	44.5	20.4	11.0	16.8	3.1	29.1	10.8	-	-	100.0	100.0
– Lombardia	3.5	3.5	27.0	20.2	41.9	41.4	1.1	4.2	0.5	2.8	22.5	28.0	3.4	-	100.0	100.0
– A. P. of Bolzano	-	-	34.4	-	-	73.3	-	-	33.6	13.3	32.1	13.3	-	-	100.0	100.0
– A. P. of Bolzano	-	-	-	-	-	-	-	-	48.1	60.7	51.9	39.3	-	-	100.0	100.0
– Veneto	-	2.4	26.3	28.0	34.7	53.1	13.9	7.7	4.9	1.1	20.3	7.7	-	-	100.0	100.0
– Friuli V. G.	-	8.2	37.0	0.6	48.7	72.2	-	-	-	-	10.3	19.0	4.0	-	100.0	100.0
– Liguria	10.3	-	15.2	16.2	10.3	59.8	19.3	1.7	-	12.0	44.8	10.3	-	-	100.0	100.0
– Emilia Romagna	2.0	6.6	24.7	14.6	32.6	78.8	12.7	-	11.7	-	16.4	-	-	-	100.0	100.0
– Toscana	1.0	-	18.2	28.8	38.2	62.5	8.0	-	16.6	-	17.9	8.7	-	-	100.0	100.0
– Umbria	-	-	13.1	-	86.9	100.0	-	-	-	-	-	-	-	-	100.0	100.0
– Marche	-	-	40.2	23.8	39.7	66.8	12.7	9.4	7.4	-	-	-	-	-	100.0	100.0
– Lazio	0.4	5.2	15.8	31.7	19.6	54.1	9.2	1.5	14.6	3.0	23.5	4.5	16.9	-	100.0	100.0
– Abruzzo	-	2.0	30.6	32.6	44.5	38.7	9.8	-	-	-	15.1	26.7	-	-	100.0	100.0
– Molise	-	-	59.1	100.0	19.2	-	-	-	-	-	21.6	-	-	-	100.0	100.0
– Campania	2.1	2.1	19.0	23.4	44.2	54.1	14.1	6.2	7.3	2.3	12.4	11.8	0.8	-	100.0	100.0
– Puglia	2.3	20.7	54.4	17.3	32.2	28.8	5.1	-	0.8	1.7	5.1	31.5	-	-	100.0	100.0
– Basilicata	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-
– Calabria	1.6	-	28.8	42.1	37.6	41.7	12.4	14.7	2.2	0.8	11.3	0.8	6.1	-	100.0	100.0
– Sicilia	2.7	-	38.1	37.5	47.8	62.5	4.3	-	-	-	7.1	-	-	-	100.0	100.0
– Sardegna	-	11.2	40.0	28.1	51.0	52.4	-	-	8.9	8.2	-	-	-	-	100.0	100.0
North	1.9	3.1	24.6	21.8	33.4	49.6	9.1	5.9	7.7	3.9	21.8	15.6	1.4	-	100.0	100.0
Centre	0.5	4.0	17.5	29.8	24.2	57.5	9.1	2.3	14.2	2.3	21.1	4.2	13.5	-	100.0	100.0
South	1.8	6.9	31.3	26.1	43.0	44.3	9.2	3.8	3.7	2.2	9.5	16.6	1.4	-	100.0	100.0
Italy	1.5	4.8	25.3	25.8	34.7	50.0	9.1	4.1	7.9	2.8	16.9	12.6	4.6	-	100.0	100.0

^(a) Residenze Sanitarie Assistenziali

Source: Aiop

Table S/10 – Technical and biomedical equipment for diagnosis and treatment in public medical institutions. Year 2003

Regions	HC	EE	CAT	HDU	ACCA	MON	MRI	OT	RU	PM	MRU	LINAC	RCT	AIA	CGC	AM	SL	ADC
– Piemonte	-	617	75	949	221	2,278	26	482	378	743	205	17	143	332	31	639	868	106
– Valle d'Aosta	-	23	1	26	10	110	3	13	8	29	6	-	2	26	2	13	48	2
– Lombardia	2	1,530	141	1,713	410	5,090	49	1,057	856	1,829	414	42	291	658	74	1,047	2,823	223
– A.P. of Bolzano	-	121	6	89	19	444	4	62	38	175	28	-	12	4	4	106	449	13
– A.P. of Trento	-	63	4	165	31	338	3	97	37	305	15	4	14	37	1	71	310	14
– Veneto	-	765	72	774	217	2,731	33	856	418	1,532	213	23	114	289	33	648	1,630	118
– Friuli V. G.	-	189	21	276	61	692	8	219	83	369	57	8	39	91	8	145	419	40
– Liguria	1	191	24	254	80	898	13	217	173	278	86	6	46	86	14	208	342	50
– Emilia Romagna	1	782	60	788	201	2,380	18	693	442	1,445	184	13	133	396	26	656	1,449	228
– Toscana	4	686	60	780	168	2,042	24	531	235	827	134	16	117	361	51	479	1,052	76
– Umbria	-	185	16	279	41	367	6	140	104	188	35	5	37	83	3	139	277	24
– Marche	-	270	22	446	78	783	18	199	154	293	64	6	60	183	17	212	420	60
– Lazio	1	682	97	917	203	2,611	42	564	409	1,064	244	24	154	350	42	633	1,046	166
– Abruzzo	-	136	20	269	104	512	8	136	114	154	60	6	39	110	8	115	197	43
– Molise	1	53	7	93	39	160	3	46	35	49	17	-	26	40	6	39	78	16
– Campania	7	455	58	361	210	1,673	13	440	308	644	191	21	165	241	73	505	524	120
– Puglia	3	489	52	920	242	1,476	23	355	327	643	138	17	127	248	31	377	578	173
– Basilicata	-	63	8	139	28	284	1	70	20	76	25	-	30	28	3	64	129	19
– Calabria	1	203	30	379	81	520	6	145	133	201	50	6	66	106	9	138	262	58
– Sicilia	10	524	64	477	212	1,962	15	557	339	697	223	7	166	229	28	636	861	170
– Sardegna	3	233	25	288	96	813	14	161	160	266	71	2	66	97	23	147	254	49
North	4	4,281	404	5,034	1,250	14,961	157	3,696	2,433	6,705	1,208	113	794	1,919	193	3,533	8,338	794
Centre	5	1,823	195	2,422	490	5,803	90	1,434	902	2,372	477	51	368	977	113	1,463	2,795	326
South	25	2,156	264	2,926	1,012	7,400	83	1,910	1,436	2,730	775	59	685	1,099	181	2,021	2,883	648
Italy	34	8,260	863	10,382	2,752	28,164	330	7,040	4,771	11,807	2,460	223	1,847	3,995	487	7,017	14,016	1,768

HC: Hyperbaric Chamber, EE: Ecotomographic Equipment, CAT: Computerised Axial Tomograph, HDU: Haemodialysis unit, ACCA: Automated Clinical Chemistry Analyser, MON: Monitor, MRI: Magnetic Resonance Imaging unit, OT: Operating table, RU: Radiologic Unit, PM: Pulmotor, MRU: Mobile Radioscopic Unit, LINAC: Linear Accelerator, RCT: Remote-controlled table for X-ray apparatus, AIA: Automated Immunoassay Analyser, CGC: Computerised Gamma Camera, AM: Anesthesia Machine, SL: Shadowless Lamp, ADC: Automated Differential Cell counter.

Source: data processing provided by *Ermeneia* on information supplied by the Italian Ministry of Health

Table S/11 – Technical and biomedical equipment for diagnosis and treatment in accredited private medical institutions. Year 2003

Regions	HC	EE	CAT	HDU	ACCA	MON	MRI	OT	RU	PM	MRU	LINAC	RCT	AIA	CGC	AM	SL	ACD
– Piemonte	1	64	14	2	31	205	13	54	66	62	34	2	32	36	1	65	80	40
– Lombardia	2	307	49	155	105	959	38	251	193	254	89	8	77	93	3	288	437	69
– A.P. of Bolzano	-	6	2	-	3	15	2	7	12	3	3	-	5	1	1	7	8	3
– A.P. of Trento	-	8	1	-	1	5	-	4	8	1	3	-	3	1	-	3	3	5
– Veneto	-	29	5	-	8	30	5	24	32	17	9	-	12	14	-	24	26	14
– Friuli V. G.	-	17	3	-	3	34	3	16	13	5	7	-	6	10	-	16	14	8
– Liguria	-	6	-	-	1	3	-	4	2	8	2	-	2	1	-	3	5	1
– Emilia R.	1	81	20	29	33	271	15	98	96	112	43	2	45	33	3	108	127	31
– Toscana	-	40	2	-	25	121	1	55	31	54	22	1	18	10	8	56	69	16
– Umbria	-	6	2	-	8	36	-	17	5	7	6	-	4	2	2	17	21	5
– Marche	-	35	3	-	10	64	2	19	26	17	12	-	14	9	2	21	23	10
– Lazio	1	95	27	481	58	405	22	103	141	77	74	1	68	53	9	110	133	73
– Abruzzo	-	26	7	15	16	51	6	28	21	20	13	-	19	13	-	28	35	10
– Molise	-	8	3	1	2	22	1	4	4	15	3	-	3	2	1	6	7	3
– Campania	2	165	43	140	58	451	14	185	119	194	66	1	64	62	19	226	247	74
– Puglia	1	71	16	153	25	140	7	46	40	67	25	-	28	25	2	60	65	29
– Basilicata	-	2	1	-	-	1	-	2	2	2	1	-	1	1	-	2	4	-
– Calabria	2	84	21	1	30	155	6	76	48	54	33	2	32	23	5	82	87	39
– Sicilia	3	96	35	16	43	281	11	152	105	153	49	6	52	34	8	167	187	53
– Sardegna	1	37	8	78	14	56	4	30	21	21	14	-	11	10	2	28	40	14
North	4	518	94	186	185	1,522	76	458	422	462	190	12	182	189	8	514	700	171
Centre	1	176	34	481	101	626	25	194	203	155	114	2	104	74	21	204	246	104
South	9	489	134	404	188	1,157	49	523	360	526	204	9	210	170	37	599	672	222
Italy	14	1,183	262	1,071	474	3,305	150	1,175	985	1,143	508	23	496	433	66	1,317	1,618	497

HC: Hyperbaric Chamber, EE: Ecotomographic Equipment, CAT: Computerised Axial Tomograph, HDU: Haemodialysis unit, ACCA: Automated Clinical Chemistry Analyser, MON: Monitor, MRI: Magnetic Resonance Imaging unit, OT: Operating table, RU: Radiologic Unit, PM: Pulmotor, MRU: Mobile Radioscopic Unit, LIINAC: Linear Accelerator, RCT: Remote-controlled table for X-ray apparatus, AIA: Automated Immunoassay Analyser, CGC: Computerised Gamma Camera, AM: Anesthesia Machine, SL: Shadowless Lamp, ADC: Automated Differential Cell counter.

Source: data processing provided by Aiop on data supplied by the Italian Ministry of Health

Table S/12 – Technical and biomedical equipment for diagnosis and treatment in non-accredited private medical institutions. Year 2003

Regions	HC	EE	CAT	HDU	ACCA	MON	MRI	OT	RU	PM	MRU	LINAC	RCT	AIA	CGC	AM	SL	ACD
– Piemonte	-	13	4	1	12	68	4	29	15	25	9	-	9	6	-	36	36	9
– Lombardia	-	28	7	4	12	131	4	59	50	42	12	-	10	12	1	57	64	10
– A.P. of Bolzano	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
– A.P. of Trento	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Veneto	-	3	-	-	-	9	-	8	4	3	4	-	4	-	-	8	8	1
– Friuli V. G.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Liguria	-	8	3	-	1	30	1	23	8	10	5	-	6	1	-	20	21	5
– Emilia R.	-	11	2	-	2	39	2	19	10	7	6	-	5	3	-	15	27	3
– Toscana	-	10	3	-	4	30	1	13	4	10	4	-	3	6	1	14	14	5
– Umbria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Marche	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Lazio	2	72	25	72	36	219	17	108	78	86	44	8	40	22	17	128	130	37
– Abruzzo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Molise	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Campania	-	3	4	12	1	7	-	13	7	12	2	1	4	1	-	17	20	3
– Puglia	-	10	3	18	7	37	2	12	13	15	2	1	4	4	-	12	19	7
– Basilicata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Calabria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
– Sicilia	-	4	-	-	-	4	-	4	-	5	-	1	-	-	-	5	7	-
– Sardegna	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North	-	63	16	5	27	277	11	138	87	87	36	-	34	22	1	136	156	29
Centre	2	82	28	72	40	249	18	121	82	96	48	8	43	28	18	142	144	42
South	-	17	7	30	8	48	2	29	20	32	4	3	8	5	-	34	46	10
Italy	2	162	51	107	75	574	31	288	189	215	88	11	85	55	19	312	346	81

HC: Hyperbaric Chamber, EE: Ecotomographic Equipment, CAT: Computerised Axial Tomograph, HDU: Haemodialysis unit, ACCA: Automated Clinical Chemistry Analyser, MON: Monitor, MRI: Magnetic Resonance Imaging unit, OT: Operating table, RU: Radiologic Unit, PM: Pulmotor, MRU: Mobile Radioscopic Unit LINAC: Linear Accelerator, RCT: Remote-controlled table for X-ray apparatus, AIA: Automated Immunoassay Analyser, CGC: Computerised Gamma Camera, AM: Anesthesia Machine, SL: Shadowless Lamp, ADC: Automated Differential Cell counter.

Source: data processing provided by Aiop on data supplied by the Italian Ministry of Health

2. *Activity data*

2.1. **In-hospital days and occupancy rate**

Table S/13 highlights a decrease in the number of available beds: from 271,000 in 1999 to 233,000 in 2003, with a reduction of -13.9%. This drop has mainly affected the public sector rather than the accredited private one: -16.4% compared to -3.0% during the same period (table S/14).

At the same time, there was also a drop in the number of in-hospital days: from 75 million in 1999 to 65 million in 2003, with a decrease of -14.1%. In addition to this, the difference is more significant for public medical institutions (-16.4%) than for private ones (-2.7%).

The average length of stay corresponds to 7.7 days and is higher for accredited private medical institutions (8.9 days): table S/15 highlights this result, which is mainly affected by long-stays and rehabilitation. This figure would vary if acute patients were taken into account: furthermore, there would be a drop to 6.9 days in the public sector, as pointed out in table S/16, and to 6.2 days in the private one as shown in table S/18.

The total occupancy rate in the hospital sector peaked at 75.9% in 2003 (compared to 76.2% in 2002), with higher percentages for hospital enterprises (80.7%), for I.R.C.C.S.¹ (81.2%) and for classified church-run hospitals (82.7%).

If we take into account only acute hospitalisation, we can observe that the average length of stay remained unaltered between 2002 and 2003 for public medical institutions (table S/16) and decreased slightly for private institutions (table S/18). On the other hand, during the same period, the occupancy rate dropped both in public and private medical institutions (table S/18).

¹ Istituti di Ricovero e di Cura a Carattere Scientifico (Hospitalisation and Healthcare Scientific Institutes)

2.2. Types of hospitalised and discharged patients

Table S/20, which shows data based on the analysis of hospital discharge abstracts (HDA), highlights that in 2003 12.8 million patients were discharged, 1.8 million of these (equal to 14.5%, compared to 14.3% in 2002) were hospitalised in private accredited institutions or otherwise.

The number of in-hospital days is 66.2 million in the public sector, and 13.6 million in the private one, (with a ratio of 17.2% to the total in the private sector, compared to 17.0% in 2002).

The number of discharged patients and in-hospital days, shown by type of institution, activity and hospitalisation, proves that private hospitals (accredited medical institutions) contribute significantly in rehabilitation and long-stay activities (cf. tables S/21 and S/22).

2.3. The prevalent DRGs

Results from the processing of hospital discharge abstracts in 2003 refer only to the analysis of the entire hospital sector without differentiating between public and private systems.

Since both the Italian Ministry of Health and Aiop regional offices disclosed data on public medical institutions (table S/23) and associated private institutions (table S/24) respectively, Aiop was once again in a position to compare the two sectors and anticipate the data related to the accredited private sector for 2004.

In the above-mentioned tables, the top 60 DRGs are listed. They have been chosen according to the highest number of discharged patients and are related to acute patients in ordinary hospitalisation, both for all public hospitals and private hospitals (accredited medical institutions). A further geographical division in Northern, Central and Southern Italy has been provided for private hospitals (tables S/25, S/26 and S27).

Table S/28 refers to acute patients hospitalised in public and private day hospitals, with reference to the top 30 DRGs with the highest number of discharged patients. Table S/29 and S/30 show in which DRGs patients needing rehabilitative care were classified, both in public and private hospitals (in 2003) and particularly in the case of private hospitals (accredited institutions) members of Aiop (in 2004).

If we consider the data relating to both public and private sectors, the most common DRG is childbirth with 324,975 discharged patients in 2003 (over

322,000 in 2002) and with an incidence of 3.8% on the total number of cases (3.6% in 2002) (table S/23).

Conversely, in 2004, in private hospitals (accredited medical institutions), knee procedures came first (with 38,079 cases, equal to 5.9% of the total in the sector).

As for complexity indicators, please refer to paragraph 1.2 of Part I of the Report, where a comparison between public medical institutions and accredited medical institutions is provided.

2.4. Activities classified by major diagnostic categories

Tables S/31 to S/35 show data retrieved from hospital discharge abstracts, which were also used in the previous tables. However, in this case they have been published by the Italian Ministry of Health as a list of Major Diagnostic Categories where DRGs are grouped.

As for acute patients in ordinary hospitalisation, the data reported in table S/31 show that diseases and disorders of the circulatory system decrease to 1,208,502 cases in 2003, compared to 1,252,614 cases in 2002; diseases and disorders of the musculoskeletal system and connective tissue amounted to 1,002,431 cases in 2003 (compared to 1,051,639 in 2002).

Data in table S/31 also show that the most significant average length of stay (exceeding 6.7 days over the total number) is related to HIV infections (14.2 days), relevant multiple trauma (13.9 days) and mental disorders (13.4 days).

Day hospital activities show significant figures for eye diseases and disorders (with 433,029 discharged patients), myeloproliferative diseases and disorders and poorly differentiated neoplasms (361,467) (table S/32).

As for rehabilitative activities in ordinary hospitalisation, table S/33 shows that diseases and disorders of the musculoskeletal system and connective tissue (with 106,817 cases) are at the top of the list, followed by diseases and disorders of the nervous system (with 61,924 cases) and finally diseases and disorders of the circulatory system (with 41,889 cases).

With regard to rehabilitative hospitalisation in day hospitals (table S/34), the highest figures concern the same diagnostic categories, the order, however, is different: at the top of the list, there are diseases and disorders of the nervous system (17,559 cases), followed by diseases and disorders of the musculoskeletal system and connective tissue (11,402 cases) and finally diseases and disorders of the cardiovascular system (7,086 cases).

2.5. Activities classified by specialty

A further method for analysing data related to hospital activity considers the variable of specialties, as listed in tables S/36 to S/59.

All information supplied and the corresponding indicators offer a complete database for 2003. It can be used for information and/or further analysis, as it compares the activity of all accredited medical institutions with the activity of the institutions members of Aiop, both nationally (table S/36) and locally (tables S/37, S/38 and S/39)

Table S/13 – Beds, in-hospital days and occupancy rate

	1999			2000			2001			2002			2003		
	Beds	In-hospital days	O.R. %	Beds	In-hospital days	O.R. %	Beds	In-hospital days	O.R. %	Beds	In-hospital days	O.R. %	Beds	In-hospital days	O.R. %
Public institutions	220,932	62,495,081	78.1	212,165	59,502,860	77.7	206,702	58,122,908	78.4	197,465	55,972,766	77.7	184,796	52,234,308	77.4
Accredited Private inst.	49,874	12,678,721	73.0	47,583	12,062,698	72.8	48,338	12,365,521	72.2	48,305	12,595,531	71.4	48,366	12,332,008	69.9
Total	270,806	75,173,802		259,748	71,565,558		255,040	70,488,429		245,770	68,568,297		233,162	64,566,316	
	%	%		%	%		%	%		%	%		%	%	
Public institutions	81.6	83.1		81.7	83.1		81.0	82.5		80.3	81.6		79.3	80.9	
Accredited Private inst.	18.4	16.9		18.3	16.9		19.0	17.5		19.7	18.4		20.7	19.1	
Total	100.0	100.0		100.0	100.0		100.0	100.0		100.0	100.0		100.0	100.0	

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/14 – Annual increase of activity, beds and in-hospital days

	2000/1999		2001/2000		2002/2001		2003/2002		2003/1999	
	Beds	In-hospital days	Beds	In-hospital days	Beds	In-hospital days	Beds	In-hospital days	Beds	In-hospital days
Public institutions	-4.0	-4.8	-2.6	-2.3	-4.5	-3.7	-6.4	-6.7	-16.4	-16.4
Accredited Private inst.	-4.6	-4.9	1.6	2.5	-0.1	1.9	0.1	-2.1	-3.0	-2.7
Total	-4.1	-4.8	-1.8	-1.5	-3.6	-2.7	-5.1	-5.8	-13.9	-14.1

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/15 – Public and accredited private medical institutions – Activity data. Year 2003

Type of institution	2003					2002	
	Beds	Hospitalisations	Days	ALOS	Occupancy %	ALOS	Occupancy %
– Hospital enterprises	65,738	2,584,327	19,355,617	7.5	80.7	7.4	80.0
– Directly managed hospitals	93,604	3,586,007	25,413,034	7.1	74.4	7.0	75.4
– University hospitals	5,903	199,292	1,649,928	8.3	76.6	8.2	78.4
– I.R.C.C.S. (Hospitalisation and Health-care Scientific Institute)	10,714	368,559	3,174,372	8.6	81.2	8.7	79.5
– Classified church-run hospitals	6,925	266,814	2,089,816	7.8	82.7	7.8	81.2
– USL facilities	1,795	52,515	522,349	9.9	79.7	9.3	74.4
– Research agencies	117	3,556	29,192	8.2	68.4	8.4	68.0
– Total of public institutions	184,796	7,061,070	52,234,308	7.4	77.4	7.3	77.7
– Accredited private medical institutions	48,366	1,377,980	12,332,008	8.9	69.9	9.0	72.8
Total of public and accredited private medical institutions	233,162	8,439,050	64,566,316	7.7	75.9	7.6	76.2

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table S/16 – Hospitalisation activity for acute cases (*) in public hospitals, per region. Year 2003 and comparison with 2002

Regions	Beds used	Number of hospitalisations	Number of in-hospital days	2003			2002		
				ALOS	Occupancy rate (%)	Hospitalisation rate (per 1,000 inhab.)	ALOS	Occupancy rate (%)	Hospitalisation rate (per 1,000 inhab.)
– Piemonte	11,744	409,397	3,308,639	8.1	79.7	96.8	8.0	78.3	102.3
– Valle d'Aosta	425	13,889	123,818	8.9	79.7	114.9	9.4	85.5	119.8
– Lombardia	26,641	1,087,336	7,670,993	7.1	79.3	119.4	7.1	78.6	126.4
– A. P. of Bolzano	1,904	78,132	513,576	6.6	74.2	167.2	6.5	76.6	176.4
– A. P. of Trento	1,572	52,945	403,224	7.6	70.4	109.6	7.3	70.7	121.2
– Veneto	15,475	564,705	4,455,343	7.9	79.9	123.4	7.9	78.7	129.5
– Friuli V.G.	4,284	136,065	1,085,225	8.0	71.6	114.2	7.8	67.4	124.7
– Liguria	5,090	190,206	1,488,328	7.8	81.6	121.0	7.7	77.1	158.3
– Emilia R.	12,440	510,602	3,430,467	6.7	76.7	126.7	6.9	77.6	129.9
– Toscana	11,116	427,306	3,187,219	7.5	79.8	121.5	7.4	77.7	134.4
– Umbria	2,425	107,618	703,722	6.5	79.6	129.0	6.6	79.0	141.4
– Marche	4,513	177,397	1,266,585	7.1	79.3	119.5	7.0	81.0	135.0
– Lazio	16,223	655,828	4,980,104	7.6	86.1	127.4	7.7	91.1	132.8
– Abruzzo	4,051	183,847	1,195,275	6.5	81.5	144.4	6.5	82.6	169.9
– Molise	1,222	52,407	381,006	7.3	85.5	163.2	7.0	86.6	180.6
– Campania	10,858	541,665	3,277,411	6.1	84.2	94.6	5.9	81.8	108.8
– Puglia	12,858	590,417	3,539,488	6.0	80.4	146.7	5.8	78.7	162.3
– Basilicata	1,766	59,407	411,542	6.9	64.1	99.5	6.6	72.6	132.9
– Calabria	6,812	210,963	1,291,708	6.1	68.7	105.1	6.1	79.9	117.3
– Sicilia	13,647	638,161	3,672,510	5.8	75.7	128.3	5.7	78.0	142.2
– Sardegna	5,621	209,613	1,455,226	6.9	73.2	128.0	7.0	68.7	129.3
North	79,575	3,043,277	22,479,613	7.4	78.6	118.1	7.4	77.6	126.2
Centre	34,277	1,368,149	10,137,630	7.4	82.8	124.6	7.4	84.6	134.3
South	56,835	2,486,480	15,224,166	6.1	78.2	120.9	6.0	78.8	135.4
Italy	170,687	6,897,906	47,841,409	6.9	79.1	120.3	6.9	79.2	131.1

(*) The following specialties are excluded: 22 - Residual mental health facilities, 28 – Spinal care unit, 56 – Functional recovery and rehabilitation, 60 – Long-stay patients, 75 – Neurological rehabilitation. Percentage covered: 98.6% of the institutions equipped with critical case wards

Source: data supplied by the Italian Ministry of Health

Table S/17 – Hospitalisation activity for non critical cases (*) in public hospitals, per region. Year 2003 and comparison with 2002

Regions	Beds used	Number of hospitalisations	Number of in-hospital days	2003		2002	
				ALOS	Occupancy rate (%)	ALOS	Occupancy rate (%)
– Piemonte	1,994	20,292	579,349	28.6	88.1	28.9	89.6
– Lombardia	3,306	45,671	1,018,536	22.3	88.3	21.7	88.1
– A. P. of Bolzano	33	496	11,958	24.1	98.8	24.0	94.2
– A. P. of Trento	239	3,856	77,035	20.0	88.2	20.5	48.3
– Veneto	2,393	27,470	683,749	24.9	83.0	23.8	81.1
– Friuli V.G.	192	1,795	52,868	29.5	77.4	29.4	83.1
– Liguria	312	4,345	99,516	22.9	103.7	24.0	88.4
– Emilia Romagna	1,820	22,206	794,350	35.8	121.3	35.5	118.0
– Toscana	354	4,974	107,424	21.6	90.1	22.8	74.5
– Umbria	130	1,775	39,905	22.5	83.8	21.1	70.6
– Marche	245	2,274	60,264	26.5	70.3	25.5	81.0
– Lazio	1,194	8,406	383,312	45.6	89.6	46.9	83.5
– Abruzzo	151	3,255	48,471	14.9	92.0	15.6	65.0
– Molise	209	1,278	44,247	34.6	88.9	36.7	93.0
– Campania	322	4,386	103,664	23.6	90.0	20.3	98.4
– Puglia	459	4,496	106,031	23.6	78.5	24.1	88.2
– Basilicata	75	692	18,949	27.4	69.5	28.7	79.4
– Calabria	62	743	14,729	19.8	65.3	17.9	62.4
– Sicilia	569	4,291	133,579	31.1	66.3	30.3	65.3
– Sardegna	50	463	14,963	32.3	84.7	39.1	76.5
North	10,289	126,131	3,317,361	26.3	95.4	25.8	93.0
Centre	1,923	17,429	590,905	33.9	87.3	34.3	80.9
South	1,897	19,604	484,633	24.7	79.3	24.0	81.2
Italy	14,109	163,164	4,392,899	26.9	90.5	26.4	87.3

(*) The following specialties are included: 22 - Residual mental health facilities, 28 – Spinal care unit, 56 – Functional recovery and rehabilitation, 60 – Long-stay patients, 75 – Neurological rehabilitation. Percentage covered: 98.6% of the institutions equipped with critical case wards

Source: data supplied by the Italian Ministry of Health

Table S/18 – Hospitalisation activity for critical cases (*) in private hospitals (accredited medical institutions), per region. Year 2003 and comparison with 2002

Regions	Beds used	Number of hospitalisations	Number of in-hospital days	2003			2002		
				ALOS	Occupancy rate (%)	Hospitalisation rate (per 1,000 inhab.)	ALOS	Occupancy rate (%)	Hospitalisation rate (per 1,000 inhab.)
– Piemonte	1,855	54,127	496,782	9.2	74.5	12.8	10.0	81.1	11.6
– Lombardia	6,066	257,055	1,181,788	4.6	54.5	28.2	4.7	59.9	30.6
– A. P. of Bolzano	122	1,564	25,554	16.3	57.4	3.3	20.1	91.9	4.5
– A. P. of Trento	-	-	-	-	-	-	-	-	-
– Veneto	793	27,101	244,370	9.0	85.5	5.9	8.5	83.6	7.2
– Friuli V. Giulia	526	10,598	64,485	6.1	34.1	8.9	5.4	34.2	9.9
– Liguria	37	1,793	10,444	5.8	77.3	1.1	5.7	86.9	1.3
– Emilia R.	3,166	75,113	567,451	7.6	53.0	18.6	7.8	54.4	19.3
– Toscana	1,350	25,646	175,710	6.9	37.7	7.3	6.6	41.2	8.4
– Umbria	207	6,933	28,740	4.1	39.8	8.3	4.5	42.9	8.8
– Marche	501	18,521	110,303	6.0	62.5	12.5	6.0	54.1	12.7
– Lazio	4,049	112,725	1,045,192	9.3	73.4	21.9	9.0	74.3	23.7
– Abruzzo	631	29,475	154,730	5.2	74.7	23.1	5.6	74.1	18.2
– Molise	93	3,787	20,918	5.5	61.6	11.8	5.8	66.4	9.0
– Campania	4,514	198,892	1,148,625	5.8	72.5	34.7	5.9	74.0	38.6
– Puglia	1,703	69,577	384,076	5.5	63.5	17.3	5.7	64.6	17.8
– Basilicata	60	1,913	9,944	5.2	45.4	3.2	6.4	55.9	3.2
– Calabria	2,345	67,341	421,188	6.3	51.6	33.5	6.2	56.6	39.3
– Sicilia	4,076	145,177	773,790	5.3	53.8	29.2	5.3	64.0	30.9
– Sardegna	1,385	42,452	256,668	6.0	52.6	25.9	6.1	56.1	27.7
North	12,565	427,351	2,590,874	6.1	60.5	16.6	6.2	64.8	17.6
Centre	6,107	163,825	1,359,945	8.3	67.2	14.9	8.1	67.6	16.2
South	14,807	558,614	3,169,939	5.7	62.4	27.2	5.8	64.0	29.1
Italy	33,479	1,149,790	7,120,758	6.2	60.5	20.1	6.3	64.3	21.5

(*) The following specialties are excluded: 22 - Residual mental health facilities, 28 – Spinal care unit, 56 – Functional recovery and rehabilitation, 60 – Long-stay patients, 75 – Neurological rehabilitation. Percentage covered: 98.6% of the institutions equipped with critical case wards

Source: data supplied by the Italian Ministry of Health

Table S/19 – Hospitalisation activity for non critical cases (*) in private hospitals (accredited institutions) per region. Year 2003 and comparison with 2002

Regions	Beds used	Number of hospitalisations	Number of in-hospital days	2003		2002	
				ALOS	Occupancy rate (%)	ALOS	Occupancy rate (%)
– Piemonte	1,835	17,968	565,406	31.5	84.4	32.6	85.1
– Lombardia	2,291	41,331	823,400	19.9	99.3	19.6	98.9
– A. P. of Bolzano	182	2,758	81,142	29.4	122.1	28.5	99.2
– A. P. of Trento	-	-	-	-	-	-	-
– Veneto	272	5,194	115,325	22.2	117.8	20.6	99.5
– Friuli V.G.	90	1,181	26,866	22.7	81.8	21.6	91.0
– Liguria	65	866	12,407	14.3	93.1	14.9	90.4
– Emilia Romagna	1,226	18,722	418,034	22.3	96.5	21.5	95.4
– Toscana	591	6,470	169,361	26.2	78.5	27.2	79.0
– Umbria	12	318	3,594	11.3	82.1	10.5	95.0
– Marche	275	2,026	81,290	40.1	87.7	39.7	118.0
– Lazio	4,331	26,706	1,413,224	52.9	90.6	53.8	91.4
– Abruzzo	323	4,367	98,597	22.6	98.6	22.7	97.6
– Molise	90	373	8,395	22.5	25.6	-	-
– Campania	1,274	10,570	434,159	41.1	94.0	41.0	95.9
– Puglia	122	1,276	43,550	34.1	97.8	32.6	96.3
– Calabria	822	6,393	264,937	41.4	90.1	40.0	90.4
– Sicilia	301	4,777	96,396	20.2	87.7	18.3	87.3
– Sardegna	124	826	38,867	47.1	85.9	52.6	84.0
North	5,961	88,020	2,042,580	23.2	96.3	22.9	94.0
Centre	5,209	35,520	1,667,469	46.9	89.2	47.4	91.4
South	3,056	28,582	984,901	34.5	92.1	34.8	93.5
Italy	14,226	152,122	4,694,950	30.9	92.8	31.2	92.5

(*) The following specialties are included: 22 - Residual mental health facilities, 28 – Spinal care unit, 56 – Functional recovery and rehabilitation, 60 – Long-stay patients, 75 – Neurological rehabilitation. Percentage covered: 98.6% of the institutions equipped with critical case wards

Source: data supplied by the Italian Ministry of Health

Table S/20 – Hospital Discharge Abstract (HDA): recorded activity, national total for public and private institutions – Discharged patients and in-hospital days. Year 2003

	Cases			Days		
	Public inst.	Private inst.	Total	Public inst.	Private inst.	Total
– Acute cases – Ordinary hospitalisation	7,156,866	1,286,605	8,443,471	49,331,829	7,262,613	56,594,442
– Acute cases – Day hospital	3,250,570	322,814	3,573,384	9,028,019	605,868	9,633,887
– Rehabilitation – Ordinary hospitalisation	126,868	134,046	260,914	3,257,837	3,624,165	6,882,002
– Rehabilitation – Day hospital	39,819	13,782	53,598	419,798	222,534	642,332
– Long-stays	53,826	40,447	94,273	1,370,726	1,496,640	2,867,366
– Healthy newborns ⁽¹⁾	323,104	55,144	378,248	1,094,107	193,567	1,287,674
Total	10,951,053	1,852,838	12,803,888	64,502,316	13,405,387	77,907,703

(1) Classified in the DRG 391

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/21 – Number of discharged patients per type of medical institution, activity and hospitalisation. Year 2003

Type of institute	Acute cases				Rehabilitation					
	Ordinary hospitalisation		Day hospital		Ordinary hospitalisation		Day hospital		Long-stays	
	Number	%	Number	%	Number	%	Number	%	Number	%
– Hospital enterprises	2,621,220	31.0	1,257,368	35.2	38,510	14.8	15,713	29.3	8,785	9.3
– Directly managed hospitals	3,617,138	42.8	1,411,325	39.5	34,249	13.1	11,053	20.6	38,585	40.9
– University hospitals	240,630	2.8	220,073	6.2	945	0.4	887	1.7	-	-
– I.R.C.C.S. (Hospitalisation and Healthcare Scientific Institute)	348,255	4.1	223,028	6.2	36,229	13.9	10,340	19.3	4,670	5.0
– Classified church-run hospitals	280,164	3.3	114,979	3.2	11,522	4.4	487	0.9	1,065	1.1
– Institutions qualified as USL facilities	45,903	0.5	23,743	0.7	5,413	2.1	1,336	2.5	721	0.8
– Research agencies	3,556	0.0	412	0.0	-	-	-	-	-	-
– Private hospitals (accredited institutions)	1,218,940	14.4	317,871	8.9	129,410	49.6	13,728	25.6	40,425	42.9
– Private hospitals (non-accredited institutions)	67,665	0.8	4,943	0.1	4,636	1.8	54	0.1	22	0.0
Total	8,443,471	100.0	3,573,742	100.0	260,914	100.0	53,598	100.0	94,273	100.0

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/22 – In-hospital days per type of institution, activity and hospitalisation. Year 2003

Type of institute	Acute cases				Rehabilitation					
	Ordinary hospitalisation		Day hospital		Ordinary hospitalisation		Day hospital		Long-stays	
	Number	%	Number	%	Number	%	Number	%	Number	%
– Hospital enterprises	18,662,587	33.0	3,606,804	37.4	841,786	12.2	150,512	23.4	252,564	8.8
– Directly managed hospitals	24,161,964	42.7	3,994,793	41.5	870,990	12.7	151,767	23.6	1,033,911	36.1
– University hospitals	1,916,987	3.4	609,023	6.3	29,398	0.4	3,793	0.6	-	0.0
– I.R.C.C.S. (Hospitalisation and Healthcare Scientific Institute)	2,304,335	4.1	459,114	4.8	1,021,867	14.8	81,809	12.7	22,211	0.8
– Classified church-run hospitals	1,944,305	3.4	296,574	3.1	323,240	4.7	3,812	0.6	32,050	1.1
– Institutions qualified Local Health Units facilities	312,459	0.6	60,553	0.6	170,556	2.5	28,105	4.4	29,990	1.0
– Research agencies	29,192	0.1	1,158	0.0	-	-	-	-	-	-
– Private hospitals (accredited institutions)	7,000,168	12.4	600,201	6.2	3,490,655	50.7	217,693	33.9	1,494,988	52.1
– Private hospitals (non-accredited institutions)	262,445	0.5	5,667	0.1	133,510	1.9	4,841	0.8	1,652	0.1
Total	56,594,442	100.0	9,633,887	100.0	6,882,002	100.0	642,332	100.0	2,867,366	100.0

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/23 – Total number of public and private hospitals: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases. Year 2003

Rank	DRG	Discharges			% of total days	Average length of stay	Average length of stay – Trimmed data	
		Total number	%	Cumulative %				
1	373	Vaginal delivery w/o complicating diagnosis	324,975	3.8	3.8	2.1	3.7	3.4
2	127	Heart failure & shock	190,340	2.3	6.1	3.0	9.0	8.6
3	371	Cesarean section w/o cc	182,541	2.2	8.3	1.7	5.4	5.0
4	183	Esophagitis, gastroent & misc digest disorders age >17 w/o cc	134,501	1.6	9.9	1.1	4.7	4.6
5	410	Chemotherapy w/o acute leukemia as secondary diagnosis	125,081	1.5	11.3	0.8	3.7	3.1
6	14	Specific cerebrovascular disorders except tia	123,310	1.5	12.8	2.3	10.4	10.1
7	39	Lens procedures with or without vitrectomy	116,574	1.4	14.2	0.4	2.0	1.9
8	359	Uterine & adnexa proc for non-malignancy w/o cc	116,554	1.4	15.6	1.0	5.0	4.9
9	88	Chronic obstructive pulmonary disease	113,959	1.3	16.9	1.8	8.8	8.4
10	209	Major joint & limb reattachment procedures of lower extremity	113,775	1.3	18.3	2.5	12.7	12.3
11	430	Psychoses	101,547	1.2	19.5	2.9	16.4	14.3
12	222	Knee procedures w/o cc	98,794	1.2	20.6	0.5	2.7	2.6
13	112	Percutaneous cardiovascular procedures	98,783	1.2	21.8	0.9	5.3	5.0
14	243	Medical back problems	92,226	1.1	22.9	1.0	6.0	5.8
15	162	Inguinal & femoral hernia procedures age >17 w/o cc	87,517	1.0	23.9	0.4	2.9	2.8
16	184	Esophagitis, gastroent & misc digest disorders age 0-17	80,827	1.0	24.9	0.4	3.1	2.9
17	198	Cholecystectomy w/o c.d.e. w/o cc	77,303	0.9	25.8	0.8	5.6	5.4
18	381	Abortion w d&c, aspiration curettage or hysterotomy	74,146	0.9	26.7	0.2	1.8	1.4
19	139	Cardiac arrhythmia & conduction disorders w/o cc	72,936	0.9	27.5	0.5	4.1	4.0
20	87	Pulmonary edema & respiratory failure	72,519	0.9	28.4	1.2	9.7	9.0
21	379	Threatened abortion	66,368	0.8	29.2	0.5	4.5	4.0
22	15	Transient ischemic attack & precerebral occlusions	65,318	0.8	30.0	0.8	6.9	6.6
23	316	Renal failure	64,470	0.8	30.7	1.1	9.5	9.1
24	467	Other factors influencing health status	63,307	0.7	31.5	0.4	3.5	2.9
25	89	Simple pneumonia & pleurisy age >17 w cc	61,770	0.7	32.2	1.3	11.8	11.3
26	125	Circulatory disorders except ami, w card cath w/o complex diag	60,240	0.7	32.9	0.4	3.6	3.2
27	82	Respiratory neoplasms	56,132	0.7	33.6	1.1	10.8	10.4
28	134	Hypertension	54,674	0.6	34.2	0.6	6.1	5.9
29	202	Cirrhosis & alcoholic hepatitis	54,266	0.6	34.9	1.0	10.1	9.6
30	119	Vein ligation & stripping	53,483	0.6	35.5	0.2	2.1	2.0
31	55	Miscellaneous ear, nose, mouth & throat procedures	52,745	0.6	36.1	0.3	3.2	3.0
32	390	Neonate w other significant problems	51,817	0.6	36.7	0.4	4.1	3.8

(Cont. from previous page) **Table S/23 – Total number of public and private hospitals: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases. Year 2003**

Rank	DRG		Discharged			% of total days	Average length of stay	Average length of stay – Trimmed data
			Total number	%	Cumulative %			
33	389	Full term neonate w major problems	50,967	0.6	37.4	0.5	5.8	5.1
34	143	Chest pain	50,813	0.6	38.0	0.3	3.5	3.4
35	140	Angina pectoris	49,633	0.6	38.5	0.5	5.9	5.6
36	070	Otitis media & uri age 0-17	49,529	0.6	39.1	0.3	3.3	3.2
37	324	Urinary stones w/o cc	48,649	0.6	39.7	0.3	3.9	3.7
38	158	Anal & stomal procedures w/o cc	48,483	0.6	40.3	0.3	3.3	3.2
39	138	Cardiac arrhythmia & conduction disorders w cc	46,892	0.6	40.8	0.5	6.2	6.0
40	323	Urinary stones w cc, &/or esw lithotripsy	46,044	0.5	41.4	0.3	4.0	3.7
41	098	Bronchitis & asthma age 0-17	45,821	0.5	41.9	0.3	4.2	4.1
42	215	Back & neck procedures w/o cc	45,472	0.5	42.5	0.5	6.6	6.3
43	167	Appendectomy w/o complicated principal diag w/o cc	45,455	0.5	43.0	0.3	4.1	4.0
44	203	Malignancy of hepatobiliary system or pancreas	45,437	0.5	43.5	0.8	9.7	9.4
45	254	Fracture, sprn, strn & disl of uparm,lowleg ex foot age >17 w/o cc	44,719	0.5	44.1	0.3	3.2	2.9
46	225	Foot procedures	44,518	0.5	44.6	0.3	3.5	3.3
47	231	Local excision & removal of int fix devices except hip & femur	44,461	0.5	45.1	0.3	3.4	3.0
48	219	Lower extrem & humer proc except hip,foot,femur age >17 w/o cc	44,271	0.5	45.6	0.6	8.0	7.7
49	395	Red blood cell disorders age >17	43,887	0.5	46.2	0.7	9.0	8.8
50	012	Degenerative nervous system disorders	43,880	0.5	46.7	0.7	9.3	8.9
51	211	Hip & femur procedures except major joint age >17 w/o cc	42,358	0.5	47.2	0.9	11.8	11.4
52	182	Esophagitis, gastroent & misc digest disorders age >17 w cc	41,790	0.5	47.7	0.5	7.1	6.8
53	369	Menstrual & other female reproductive system disorders	41,580	0.5	48.2	0.2	2.9	2.6
54	189	Other digestive system diagnoses age >17 w/o cc	41,566	0.5	48.7	0.3	4.4	4.1
55	122	Circulatory disorders w ami w/o c.v. comp disch alive	41,480	0.5	49.2	0.6	7.9	7.7
56	065	Dysequilibrium	40,217	0.5	49.6	0.4	5.0	4.9
57	311	Transurethral procedures w/o cc	40,217	0.5	50.1	0.3	4.6	4.4
58	294	Diabetes age >35	39,715	0.5	50.6	0.5	7.7	7.6
59	060	Respiratory infections & inflammations age >17 w/o cc	38,977	0.5	51.0	0.1	2.0	1.9
60	364	Dilatation & curettage, conization except for malignancy	38,591	0.5	51.5	0.2	2.4	2.1
Total (top 60 DRGs)			4,348,220	51.5		45.7		
Grand total			8,443,471	100.0				

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/24 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases. Year 2004

Rank	DRG	Discharged			% of total days	Average length of stay	In - hospital days	
		Total number	%	Cumulative %				
1	222	Knee procedures w/o cc	38,079	5.9	5.9	2.4	2.2	83,762
2	371	Cesarean section w/o cc	33,573	5.2	11.0	4.4	4.6	152,810
3	39	Lens procedures with or without vitrectomy	33,528	5.2	16.2	1.4	1.4	47,681
4	209	Major joint & limb reattachment procedures of lower extremity	30,533	4.7	20.9	8.1	9.2	281,850
5	410	Chemotherapy w/o acute leukemia as secondary diagnosis	26,657	4.1	25.0	2.0	2.6	69,248
6	373	Vaginal delivery w/o complicating diagnoses	23,381	3.6	28.6	2.3	3.5	81,665
7	430	Psychoses	22,851	3.5	32.1	21.0	32.0	731,500
8	112	Percutaneous cardiovascular procedures	21,077	3.2	35.4	2.1	3.4	72,061
9	119	Vein ligation & stripping	19,287	3.0	38.4	0.9	1.6	30,688
10	359	Uterine & adnexa proc for non-malignancy w/o cc	19,175	3.0	41.3	2.1	3.9	74,378
11	162	Inguinal & femoral hernia procedures age >17 w/o cc	18,922	2.9	44.2	1.3	2.4	45,691
12	125	Circulatory disorders except ami, w card cath w/o complex diag	16,588	2.6	46.8	1.3	2.7	45,414
13	127	Heart failure & shock	16,502	2.5	49.3	4.5	9.4	155,062
14	183	Esophagitis, gastroent & misc digest disorders age >17 w/o cc	16,251	2.5	51.8	2.3	4.9	80,405
15	225	Foot procedures	13,957	2.2	54.0	1.0	2.5	35,082
16	381	Abortion w d&c, aspiration curettage or hysterotomy	13,525	2.1	56.1	0.3	0.9	11,591
17	243	Medical back problems	12,407	1.9	58.0	2.5	7.1	88,240
18	88	Chronic obstructive pulmonary disease	11,880	1.8	59.8	3.4	10.0	118,898
19	158	Anal & stomal procedures w/o cc	11,742	1.8	61.6	1.0	2.8	33,161
20	215	Back & neck procedures w/o cc	11,208	1.7	63.4	1.4	4.4	48,932
21	231	Local excision & removal of int fix devices except hip & femur	10,465	1.6	65.0	0.8	2.6	26,768
22	467	Other factors influencing health status	10,330	1.6	66.6	0.8	2.7	28,211
23	134	Hypertension	9,105	1.4	68.0	1.6	6.3	56,955
24	198	Cholecystectomy w/o c.d.e. w/o cc	8,961	1.4	69.3	1.1	4.2	37,943
25	379	Threatened abortion	8,397	1.3	70.6	1.2	4.8	40,237
26	323	Urinary stones w cc, &/or esw lithotripsy	8,349	1.3	71.9	0.8	3.3	27,308
27	55	Miscellaneous ear, nose, mouth & throat procedures	7,059	1.1	73.0	0.5	2.2	15,829
28	139	Cardiac arrhythmia & conduction disorders w/o cc	6,982	1.1	74.1	1.0	4.9	34,201
29	223	Major shoulder/elbow proc, or other upper extremity proc w cc	6,967	1.1	75.2	0.5	2.5	17,541
30	211	Hip & femur procedures except major joint age >17 w/o cc	6,963	1.1	76.2	1.0	5.1	35,684
31	229	Hand or wrist proc, except major joint proc, w/o cc	6,906	1.1	77.3	0.3	1.5	10,600
32	227	Soft tissue procedures w/o cc	6,906	1.1	78.4	0.5	2.6	17,887

(Cont. from previous page) **Table S/24 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases. Year 2004**

Rank	DRG	Discharged			% of total days	Average length of stay	In - hospital days	
		Total number	%	Cumulative %				
33	189	Other digestive system diagnoses age >17 w/o cc	6,292	1.0	79.3	0.8	4.5	28,603
34	339	Testes procedures, non-malignancy age >17	6,268	1.0	80.3	0.4	2.2	13,973
35	270	Other skin, subcut tiss & breast proc w/o cc	6,220	1.0	81.3	0.2	1.2	7,185
36	15	Transient ischemic attack & precerebral occlusions	6,167	1.0	82.2	1.2	7.0	42,895
37	364	Dilatation & curettage, conization except for malignancy	5,859	0.9	83.1	0.3	2.0	11,625
38	12	Degenerative nervous system disorders	5,740	0.9	84.0	1.8	10.7	61,169
39	294	Diabetes age >35	5,730	0.9	84.9	1.3	8.1	46,563
40	311	Transurethral procedures w/o cc	5,662	0.9	85.7	0.6	3.8	21,246
41	234	Other musculoskelet sys & conn tiss o.r. proc w/o cc	5,584	0.9	86.6	0.4	2.8	15,604
42	131	Peripheral vascular disorders w/o cc	5,254	0.8	87.4	1.0	6.4	33,806
43	143	Chest pain	5,184	0.8	88.2	0.6	4.0	20,842
44	245	Bone diseases & specific arthropathies w/o cc	5,180	0.8	89.0	1.3	8.4	43,696
45	167	Appendectomy w/o complicated principal diag w/o cc	4,943	0.8	89.8	0.5	3.5	17,400
46	14	Specific cerebrovascular disorders except tia	4,918	0.8	90.5	1.3	9.5	46,555
47	6	Carpal tunnel release	4,766	0.7	91.3	0.2	1.2	5,687
48	60	Tonsillectomy &/or adenoidectomy only, age 0-17	4,695	0.7	92.0	0.3	1.9	8,971
49	47	Other disorders of the eye age >17 w/o cc	4,664	0.7	92.7	0.3	2.0	9,247
50	428	Disorders of personality & impulse control	4,599	0.7	93.4	3.8	28.8	132,416
51	324	Urinary stones w/o cc	4,539	0.7	94.1	0.5	3.8	17,287
52	369	Menstrual & other female reproductive system disorders	4,397	0.7	94.8	0.3	2.3	10,252
53	130	Peripheral vascular disorders w cc	4,396	0.7	95.5	1.0	8.1	35,802
54	219	Lower extrem & humer proc except hip,foot,femur age >17 w/o cc	4,384	0.7	96.1	0.7	5.4	23,767
55	206	Disorders of liver except malig,cirr,alc hepa w/o cc	4,337	0.7	96.8	0.8	6.2	26,884
56	395	Red blood cell disorders age >17	4,186	0.6	97.5	1.1	8.9	37,219
57	479	Other vascular procedures w/o cc	4,177	0.6	98.1	0.4	3.7	15,323
58	182	Esophagitis, gastroent & misc digest disorders age >17 w cc	4,136	0.6	98.7	0.9	7.3	30,326
59	138	Cardiac arrhythmia & conduction disorders w cc	4,130	0.6	99.4	0.8	7.1	29,434
60	17	Nonspecific cerebrovascular disorders w/o cc	4,033	0.6	100.0	1.4	11.8	47,706
Total (top 60 DRGs)			648,953	63.8				3,478,766
Grand total			1,017,470					6,097,212

Source: data processing provided by Ermenea on information supplied by Aiop

Table S/25 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases in Northern Italy. Year 2004

Rank	DRG	North						
		Discharged			% of total days	Average length of stay	In - hospital days	
		Total number	%	Cumulative %				
1	222	Knee procedures w/o cc	22,622	6.3	6.3	1.6	1.6	35,909
2	209	Major joint & limb reattachment procedures of lower extremity	16,834	4.7	11.0	6.0	7.8	130,633
3	119	Vein ligation & stripping	12,257	3.4	14.4	0.7	1.2	14,742
4	112	Percutaneous cardiovascular procedures	10,527	2.9	17.3	1.8	3.6	38,195
5	430	Psychoses	9,605	2.7	20.0	13.8	31.4	301,218
6	225	Foot procedures	8,380	2.3	22.3	0.8	2.0	16,540
7	162	Inguinal & femoral hernia procedures age >17 w/o cc	7,644	2.1	24.4	0.5	1.4	11,049
8	39	Lens procedures with or without vitrectomy	7,065	2.0	26.4	0.2	0.5	3,396
9	215	Back & neck procedures w/o cc	6,790	1.9	28.3	1.2	3.7	25,113
10	231	Local excision & removal of int fix devices except hip & femur	6,633	1.8	30.1	0.6	2.0	13,132
11	359	Uterine & adnexa proc for non-malignancy w/o cc	6,103	1.7	31.8	0.8	2.7	16,501
12	127	Heart failure & shock	5,981	1.7	33.5	2.6	9.4	56,486
13	125	Circulatory disorders except ami, w card cath w/o complex diag	5,926	1.6	35.1	0.8	2.9	17,413
14	223	Major shoulder/elbow proc, or other upper extremity proc w cc	4,766	1.3	36.4	0.4	2.0	9,544
15	158	Anal & stomal procedures w/o cc	4,697	1.3	37.7	0.4	1.9	8,818
16	229	Hand or wrist proc, except major joint proc, w/o cc	4,392	1.2	38.9	0.2	1.1	4,829
17	373	Vaginal delivery w/o complicating diagnoses	4,085	1.1	40.1	0.6	3.3	13,657
18	211	Hip & femur procedures except major joint age >17 w/o cc	4,069	1.1	41.2	0.6	3.4	13,632
19	227	Soft tissue procedures w/o cc	3,919	1.1	42.3	0.3	1.7	6,799
20	198	Cholecystectomy w/o c.d.e. w/o cc	3,803	1.1	43.4	0.6	3.5	13,178
21	234	Other musculoskelet sys & conn tiss o.r. proc w/o cc	3,752	1.0	44.4	0.4	2.4	9,102
22	410	Chemotherapy w/o acute leukemia as secondary diagnosis	3,201	0.9	45.3	0.5	3.3	10,568
23	428	Disorders of personality & impulse control	3,080	0.9	46.1	4.2	29.5	90,889
24	88	Chronic obstructive pulmonary disease	3,059	0.8	47.0	1.8	12.6	38,455
25	183	Esophagitis, gastroent & misc digest disorders age >17 w/o cc	2,989	0.8	47.8	0.8	5.6	16,692
26	479	Other vascular procedures w/o cc	2,594	0.7	48.5	0.4	3.4	8,771
27	243	Medical back problems	2,531	0.7	49.2	0.8	6.5	16,384
28	12	Degenerative nervous system disorders	2,518	0.7	49.9	1.1	9.3	23,340
29	467	Other factors influencing health status	2,436	0.7	50.6	0.2	2.0	4,869
30	5	Extracranial vascular procedures	2,415	0.7	51.3	0.5	4.8	11,593
31	107	Coronary bypass w/o cardiac cath	2,365	0.7	52.0	1.2	11.1	26,309
32	478	Other vascular procedures w cc	2,356	0.7	52.6	0.7	6.1	14,261

(Cont. from previous page) Table S/25 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases in Northern Italy. Year 2004

Rank	DRG		North					
			Discharged			% of total days	Average length of stay	In - hospital days
			Total number	%	Cumulative %			
33	219	Lower extrem & humer proc except hip,foot,femur age >17 w/o cc	2,306	0.6	53.2	0.4	4.1	9,374
34	55	Miscellaneous ear, nose, mouth & throat procedures	2,301	0.6	53.9	0.2	1.7	3,810
35	14	Specific cerebrovascular disorders except tia	2,203	0.6	54.5	1.0	9.5	21,006
36	15	Transient ischemic attack & precerebral occlusions	2,166	0.6	55.1	0.7	6.7	14,496
37	139	Cardiac arrhythmia & conduction disorders w/o cc	2,163	0.6	55.7	0.4	4.3	9,290
38	371	Cesarean section w/o cc	2,103	0.6	56.3	0.4	4.6	9,652
39	311	Transurethral procedures w/o cc	2,084	0.6	56.9	0.3	2.9	6,106
40	6	Carpal tunnel release	2,058	0.6	57.4	0.1	0.5	1,099
41	266	Skin graft &/or debrid except for skin ulcer or cellulitis w/o cc	2,007	0.6	58.0	0.1	1.0	2,007
42	339	Testes procedures, non-malignancy age >17	1,981	0.6	58.5	0.1	1.4	2,860
43	104	Cardiac valve procedures w cardiac cath	1,966	0.5	59.1	1.2	13.5	26,626
44	60	Tonsillectomy &/or adenoidectomy only, age 0-17	1,948	0.5	59.6	0.1	1.4	2,676
45	87	Pulmonary edema & respiratory failure	1,850	0.5	60.1	1.1	13.1	24,218
46	124	Circulatory disorders except ami, w card cath & complex diag	1,795	0.5	60.6	0.4	5.1	9,111
47	337	Transurethral prostatectomy w/o cc	1,741	0.5	61.1	0.4	4.5	7,826
48	365	Other female reproductive system o.r. procedures	1,630	0.5	61.6	0.1	0.9	1,507
49	294	Diabetes age >35	1,545	0.4	62.0	0.5	7.4	11,382
50	8	Periph & cranial nerve & other nerv syst proc w/o cc	1,526	0.4	62.4	0.1	1.8	2,797
51	323	Urinary stones w cc, &/or esw lithotripsy	1,519	0.4	62.9	0.2	3.4	5,223
52	89	Simple pneumonia & pleurisy age >17 w cc	1,515	0.4	63.3	0.9	12.6	19,139
53	130	Peripheral vascular disorders w cc	1,486	0.4	63.7	0.5	7.9	11,683
54	131	Peripheral vascular disorders w/o cc	1,458	0.4	64.1	0.4	6.3	9,149
55	335	Major male pelvic procedures w/o cc	1,453	0.4	64.5	0.5	8.2	11,904
56	160	Hernia procedures except inguinal & femoral age >17 w/o cc	1,452	0.4	64.9	0.2	2.9	4,240
57	426	Depressive neuroses	1,445	0.4	65.3	1.3	19.9	28,790
58	395	Red blood cell disorders age >17	1,380	0.4	65.7	0.6	8.9	12,219
59	105	Cardiac valve procedures w/o cardiac cath	1,364	0.4	66.1	0.8	12.3	16,813
60	82	Respiratory neoplasms	1,355	0.4	66.4	0.7	11.1	15,005
Total (top 60 DRGs)			239,194	66.4				1,322,025
Grand total (North)			360,010					2,177,245

Source: data processing provided by Ermeneia on information supplied by Aiop

Table S/26 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases in Central Italy. Year 2004

Rank	DRG		Centre				Average length of stay	In - hospital days
			Discharged			% of total days		
			Total number	%	Cumulative %			
1	209	Major joint & limb reattachment procedures of lower extremity	5,142	3.9	3.9	5.5	11.5	59,222
2	222	Knee procedures w/o cc	4,012	3.0	6.9	1.2	3.3	13,196
3	373	Vaginal delivery w/o complicating diagnoses	3,812	2.9	9.8	1.2	3.5	13,344
4	359	Uterine & adnexa proc for non-malignancy w/o cc	3,754	2.8	12.6	1.5	4.1	15,579
5	127	Heart failure & shock	3,474	2.6	15.2	3.1	9.6	33,284
6	430	Psychoses	3,181	2.4	17.6	16.5	55.7	177,086
7	183	Esophagitis, gastroent & misc digest disorders age >17 w/o cc	3,043	2.3	19.9	1.5	5.4	16,369
8	371	Cesarean section w/o cc	2,963	2.2	22.2	1.4	5.2	15,495
9	162	Inguinal & femoral hernia procedures age >17 w/o cc	2,401	1.8	24.0	0.6	2.9	6,981
10	225	Foot procedures	2,297	1.7	25.7	0.8	3.6	8,188
11	215	Back & neck procedures w/o cc	2,258	1.7	27.4	1.1	5.3	11,977
12	243	Medical back problems	2,214	1.7	29.1	1.8	8.8	19,406
13	39	Lens procedures with or without vitrectomy	2,042	1.5	30.6	0.4	2.1	4,275
14	88	Chronic obstructive pulmonary disease	1,793	1.4	32.0	1.6	9.4	16,864
15	119	Vein ligation & stripping	1,571	1.2	33.2	0.3	2.2	3,507
16	158	Anal & stomal procedures w/o cc	1,536	1.2	34.3	0.5	3.3	5,132
17	198	Cholecystectomy w/o c.d.e. w/o cc	1,341	1.0	35.3	0.6	4.9	6,582
18	15	Transient ischemic attack & precerebral occlusions	1,329	1.0	36.3	0.9	7.5	10,030
19	231	Local excision & removal of int fix devices except hip & femur	1,307	1.0	37.3	0.6	5.1	6,683
20	223	Major shoulder/elbow proc, or other upper extremity proc w cc	1,293	1.0	38.3	0.4	3.4	4,429
21	139	Cardiac arrhythmia & conduction disorders w/o cc	1,266	1.0	39.3	0.7	5.7	7,261
22	323	Urinary stones w cc, &/or esw lithotripsy	1,232	0.9	40.2	0.4	3.4	4,173
23	134	Hypertension	1,217	0.9	41.1	0.7	6.4	7,811
24	189	Other digestive system diagnoses age >17 w/o cc	1,097	0.8	41.9	0.5	4.9	5,420
25	143	Chest pain	1,088	0.8	42.8	0.5	4.6	4,964
26	211	Hip & femur procedures except major joint age >17 w/o cc	1,046	0.8	43.5	0.7	7.0	7,277
27	14	Specific cerebrovascular disorders except tia	994	0.7	44.3	1.0	10.5	10,392
28	55	Miscellaneous ear, nose, mouth & throat procedures	955	0.7	45.0	0.2	2.6	2,464
29	297	Nutritional & misc metabolic disorders age >17 w/o cc	942	0.7	45.7	0.4	4.2	3,917
30	227	Soft tissue procedures w/o cc	936	0.7	46.4	0.4	4.8	4,503
31	140	Angina pectoris	936	0.7	47.1	0.6	6.8	6,362
32	234	Other musculoskelet sys & conn tiss o.r. proc w/o cc	917	0.7	47.8	0.3	3.3	3,058

(Cont. from previous page) Table S/26 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases in Central Italy. Year 2004

Rank	DRG	Centre						
		Total number	Discharged %	Cumulative %	% of total days	Average length of stay	In - hospital days	
33	316	Renal failure	915	0.7	48.5	1.0	11.3	10,305
34	381	Abortion w d&c, aspiration curettage or hysterotomy	893	0.7	49.2	0.2	2.1	1,848
35	16	Nonspecific cerebrovascular disorders w cc	850	0.6	49.8	0.8	9.7	8,260
36	311	Transurethral procedures w/o cc	842	0.6	50.5	0.4	4.7	3,988
37	245	Bone diseases & specific arthropathies w/o cc	819	0.6	51.1	0.6	7.7	6,346
38	219	Lower extrem & humer proc except hip,foot,femur age >17 w/o cc	774	0.6	51.7	0.5	7.6	5,857
39	138	Cardiac arrhythmia & conduction disorders w cc	764	0.6	52.2	0.6	8.1	6,197
40	339	Testes procedures, non-malignancy age >17	734	0.6	52.8	0.2	2.7	2,002
41	294	Diabetes age >35	734	0.6	53.4	0.6	8.9	6,503
42	248	Tendonitis, myositis & bursitis	713	0.5	53.9	0.3	5.0	3,565
43	12	Degenerative nervous system disorders	707	0.5	54.4	0.8	12.5	8,804
44	182	Esophagitis, gastroent & misc digest disorders age >17 w cc	698	0.5	55.0	0.5	7.7	5,365
45	324	Urinary stones w/o cc	696	0.5	55.5	0.3	4.6	3,187
46	379	Threatened abortion	685	0.5	56.0	0.4	5.5	3,779
47	89	Simple pneumonia & pleurisy age >17 w cc	679	0.5	56.5	0.7	11.3	7,649
48	395	Red blood cell disorders age >17	658	0.5	57.0	0.6	10.0	6,607
49	337	Transurethral prostatectomy w/o cc	610	0.5	57.5	0.3	5.8	3,550
50	364	Dilatation & curettage, conization except for malignancy	606	0.5	57.9	0.1	2.4	1,429
51	17	Nonspecific cerebrovascular disorders w/o cc	601	0.5	58.4	0.5	9.1	5,453
52	290	Thyroid procedures	598	0.5	58.8	0.2	4.4	2,625
53	160	Hernia procedures except inguinal & femoral age >17 w/o cc	593	0.4	59.3	0.3	4.9	2,887
54	24	Seizure & headache age >17 w cc	586	0.4	59.7	0.5	8.6	5,046
55	42	Intraocular procedures except retina, iris & lens	577	0.4	60.1	0.2	3.1	1,789
56	82	Respiratory neoplasms	573	0.4	60.6	0.5	9.8	5,597
57	145	Other circulatory system diagnoses w/o cc	569	0.4	61.0	0.4	8.5	4,815
58	410	Chemotherapy w/o acute leukemia as secondary diagnosis	550	0.4	61.4	0.2	3.8	2,107
59	428	Disorders of personality & impulse control	546	0.4	61.8	2.3	45.5	24,820
60	144	Other circulatory system diagnoses w cc	538	0.4	62.2	0.5	10.7	5,744
Total (top 60 DRGs)			82,497	62.2				671,355
Grand total (Centre)			132,542					1,074,008

Source: data processing provided by Ermenea on information supplied by Aiop

Table S/27 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases in Southern Italy, Year 2004

Rank	DRG		South					
			Discharged			% of total days	Average length of stay	In - hospital days
			Total number	%	Cumulative %			
1	371	Cesarean section w/o cc	28,507	5.4	5.4	4.5	4.5	127,663
2	39	Lens procedures with or without vitrectomy	24,421	4.7	10.1	1.4	1.6	40,010
3	410	Chemotherapy w/o acute leukemia as secondary diagnosis	22,906	4.4	14.4	2.0	2.5	56,573
4	373	Vaginal delivery w/o complicating diagnoses	15,484	2.9	17.4	1.9	3.5	54,664
5	381	Abortion w d&c, aspiration curettage or hysterotomy	11,471	2.2	19.6	0.3	0.8	9,324
6	222	Knee procedures w/o cc	11,445	2.2	21.8	1.2	3.0	34,657
7	125	Circulatory disorders except ami, w card cath w/o complex diag	10,385	2.0	23.7	1.0	2.6	27,195
8	183	Esophagitis, gastroent & misc digest disorders age >17 w/o cc	10,219	1.9	25.7	1.7	4.6	47,344
9	112	Percutaneous cardiovascular procedures	10,198	1.9	27.6	1.1	3.1	31,800
10	430	Psychoses	10,065	1.9	29.5	8.9	25.2	253,196
11	359	Uterine & adnexa proc for non-malignancy w/o cc	9,318	1.8	31.3	1.5	4.5	42,298
12	162	Inguinal & femoral hernia procedures age >17 w/o cc	8,877	1.7	33.0	1.0	3.1	27,661
13	209	Major joint & limb reattachment procedures of lower extremity	8,557	1.6	34.6	3.2	10.8	91,995
14	243	Medical back problems	7,662	1.5	36.1	1.8	6.8	52,450
15	467	Other factors influencing health status	7,428	1.4	37.5	0.8	3.0	22,376
16	379	Threatened abortion	7,346	1.4	38.9	1.2	4.8	34,948
17	127	Heart failure & shock	7,047	1.3	40.3	2.3	9.3	65,292
18	88	Chronic obstructive pulmonary disease	7,028	1.3	41.6	2.2	9.0	63,579
19	134	Hypertension	6,608	1.3	42.9	1.4	6.1	40,493
20	323	Urinary stones w cc, &/or esw lithotripsy	5,598	1.1	43.9	0.6	3.2	17,912
21	158	Anal & stomal procedures w/o cc	5,509	1.0	45.0	0.7	3.5	19,211
22	119	Vein ligation & stripping	5,459	1.0	46.0	0.4	2.3	12,439
23	270	Other skin, subcut tiss & breast proc w/o cc	4,809	0.9	46.9	0.2	1.0	4,877
24	364	Dilatation & curettage, conization except for malignancy	4,585	0.9	47.8	0.3	2.1	9,654
25	47	Other disorders of the eye age >17 w/o cc	4,279	0.8	48.6	0.3	1.8	7,788
26	189	Other digestive system diagnoses age >17 w/o cc	4,257	0.8	49.4	0.7	4.6	19,533
27	198	Cholecystectomy w/o c.d.e. w/o cc	3,817	0.7	50.2	0.6	4.8	18,183
28	55	Miscellaneous ear, nose, mouth & throat procedures	3,803	0.7	50.9	0.3	2.5	9,555
29	245	Bone diseases & specific arthropathies w/o cc	3,803	0.7	51.6	1.2	8.8	33,404
30	369	Menstrual & other female reproductive system disorders	3,613	0.7	52.3	0.3	2.1	7,600
31	167	Appendectomy w/o complicated principal diag w/o cc	3,609	0.7	53.0	0.5	3.6	12,870
32	339	Testes procedures, non-malignancy age >17	3,553	0.7	53.7	0.3	2.6	9,111

(Cont. from previous page) Table S/27 – Private hospitals (accredited medical institutions) members of Aiop: top 60 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient acute cases in Southern Italy. Year 2004

Rank	DRG	South						
		Discharged			% of total days	Average length of stay	In - hospital days	
Total number	%	Cumulative %						
33	139	Cardiac arrhythmia & conduction disorders w/o cc	3,553	0.7	54.3	0.6	5.0	17,650
34	294	Diabetes age >35	3,451	0.7	55.0	1.0	8.3	28,678
35	131	Peripheral vascular disorders w/o cc	3,290	0.6	55.6	0.7	6.2	20,501
36	225	Foot procedures	3,280	0.6	56.2	0.4	3.2	10,354
37	206	Disorders of liver except malig,cirr,alc hepa w/o cc	3,216	0.6	56.9	0.7	6.0	19,423
38	324	Urinary stones w/o cc	3,188	0.6	57.5	0.4	3.7	11,759
39	143	Chest pain	3,096	0.6	58.1	0.4	3.7	11,547
40	411	History of malignancy w/o endoscopy	2,984	0.6	58.6	0.4	3.7	10,921
41	311	Transurethral procedures w/o cc	2,736	0.5	59.1	0.4	4.1	11,152
42	15	Transient ischemic attack & precerebral occlusions	2,672	0.5	59.7	0.6	6.9	18,369
43	231	Local excision & removal of int fix devices except hip & femur	2,525	0.5	60.1	0.2	2.8	6,953
44	12	Degenerative nervous system disorders	2,515	0.5	60.6	1.0	11.5	29,025
45	6	Carpal tunnel release	2,471	0.5	61.1	0.1	1.6	3,842
46	130	Peripheral vascular disorders w cc	2,437	0.5	61.5	0.7	7.8	18,894
47	42	Intraocular procedures except retina, iris & lens	2,337	0.4	62.0	0.2	2.1	4,908
48	17	Nonspecific cerebrovascular disorders w/o cc	2,334	0.4	62.4	1.2	14.3	33,296
49	60	Tonsillectomy &/or adenoidectomy only, age 0-17	2,328	0.4	62.9	0.2	2.3	5,443
50	360	Vagina, cervix & vulva procedures	2,326	0.4	63.3	0.2	2.6	5,951
51	182	Esophagitis, gastroent & misc digest disorders age >17 w cc	2,301	0.4	63.8	0.6	6.8	15,656
52	267	Perianal & pilonidal procedures	2,285	0.4	64.2	0.2	3.1	7,099
53	254	Fracture, sprn, strn & disl of uparm,lowleg ex foot age >17 w/o cc	2,249	0.4	64.6	0.2	2.2	4,957
54	138	Cardiac arrhythmia & conduction disorders w cc	2,203	0.4	65.0	0.5	7.0	15,417
55	215	Back & neck procedures w/o cc	2,160	0.4	65.5	0.4	5.5	11,842
56	395	Red blood cell disorders age >17	2,148	0.4	65.9	0.6	8.6	18,393
57	208	Disorders of the biliary tract w/o cc	2,098	0.4	66.3	0.4	5.8	12,160
58	227	Soft tissue procedures w/o cc	2,051	0.4	66.7	0.2	3.2	6,585
59	229	Hand or wrist proc, except major joint proc, w/o cc	2,024	0.4	67.0	0.1	2.0	4,051
60	124	Circulatory disorders except ami, w card cath & complex diag	2,016	0.4	67.4	0.3	3.8	7,592
Total (top 60 DRGs)			353,940	67.4				1,678,073
Grand total (South)			524,918					2,845,959

Source: data processing provided by Ermenea on information supplied by Aiop

Table S/28 – Total number of public and private hospitals: top 30 DRGs according to the number of discharges (Medicare version DRG 10.0) – Acute cases – Day care discharges. Year 2003

Rank	DRG	Discharged			% of total days	Average number of accesses
		Total number	%	Cumulative %		
1	39 Lens procedures with or without vitrectomy	328,084	9.2	9.2	6.0	1.8
2	410 Chemotherapy w/o acute leukemia as secondary diagnosis	226,701	6.3	15.5	18.4	7.8
3	381 Abortion w d&c, aspiration curettage or hysterotomy	142,305	4.0	19.5	2.0	1.4
4	266 Skin graft &/or debrid except for skin ulcer or cellulitis w/o cc	83,997	2.4	21.9	1.5	1.7
5	467 Other factors influencing health status	77,684	2.2	24.0	1.7	2.2
6	301 Endocrine disorders w/o cc	69,016	1.9	26.0	1.4	2.0
7	6 Carpal tunnel release	68,123	1.9	27.9	1.1	1.6
8	364 Dilatation & curettage, conization except for malignancy	66,582	1.9	29.7	0.9	1.4
9	162 Inguinal & femoral hernia procedures age >17 w/o cc	65,338	1.8	31.6	1.3	1.8
10	134 Hypertension	60,866	1.7	33.3	1.3	2.0
11	119 Vein ligation & stripping	57,970	1.6	34.9	1.0	1.7
12	270 Other skin, subcut tiss & breast proc w/o cc	55,776	1.6	36.4	1.0	1.8
13	206 Disorders of liver except malig,cirr,alc hepa w/o cc	55,648	1.6	38.0	1.5	2.6
14	222 Knee procedures w/o cc	54,469	1.5	39.5	0.9	1.6
15	229 Hand or wrist proc, except major joint proc, w/o cc	47,561	1.3	40.9	0.8	1.5
16	284 Minor skin disorders w/o cc	45,207	1.3	42.1	1.1	2.3
17	369 Menstrual & other female reproductive system disorders	45,161	1.3	43.4	0.8	1.8
18	183 Esophagitis, gastroent & misc digest disorders age >17 w/o cc	45,111	1.3	44.7	0.9	2.0
19	47 Other disorders of the eye age >17 w/o cc	39,925	1.1	45.8	0.7	1.8
20	411 History of malignancy w/o endoscopy	39,467	1.1	46.9	1.0	2.4
21	294 Diabetes age >35	38,835	1.1	48.0	0.8	1.9
22	404 Lymphoma & non-acute leukemia w/o cc	38,123	1.1	49.0	1.8	4.6
23	395 Red blood cell disorders age >17	37,824	1.1	50.1	2.6	6.5
24	359 Uterine & adnexa proc for non-malignancy w/o cc	31,329	0.9	51.0	0.5	1.5
25	231 Local excision & removal of int fix devices except hip & femur	30,101	0.9	51.8	0.5	1.6
26	40 Extraocular procedures except orbit age >17	29,629	0.8	52.6	0.5	1.7
27	249 Aftercare, musculoskeletal system & connective tissue	27,333	0.8	53.4	0.5	1.8
28	241 Connective tissue disorders w/o cc	27,257	0.8	54.2	0.9	3.3
29	169 Mouth procedures w/o cc	26,440	0.7	54.9	0.4	1.5
30	360 Vagina, cervix & vulva procedures	23,886	0.7	55.6	0.3	1.4
	Total (top 30 DRGs)	1,985,748	55.6		54.4	
	Grand total	3,573,384	100.0		100.0	2.6

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/29 – Total number of public and private hospitals: top 30 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient rehabilitation cases. Year 2003

Rank	DRG	Discharged			% of total days	Average length of stay
		Total number	%	Cumulative %		
1	256 Other musculoskeletal system & connective tissue diagnoses	34,231	13.1	13.1	10.6	21.4
2	12 Degenerative nervous system disorders	27,954	10.7	23.8	16.0	39.5
3	249 Aftercare, musculoskeletal system & connective tissue	16,718	6.4	30.2	7.3	30.0
4	462 Rehabilitation	15,539	6.0	36.2	4.4	19.4
5	247 Signs & symptoms of musculoskeletal system & conn tissue	14,990	5.7	41.9	5.4	24.8
6	145 Other circulatory system diagnoses w/o cc	14,493	5.6	47.5	3.4	16.1
7	245 Bone diseases & specific arthropathies w/o cc	13,663	5.2	52.7	4.2	21.2
8	144 Other circulatory system diagnoses w cc	9,911	3.8	56.5	2.6	18.3
9	9 Spinal disorders & injuries	8,986	3.4	60.0	5.6	43.3
10	243 Medical back problems	8,892	3.4	63.4	2.8	22.0
11	87 Pulmonary edema & respiratory failure	7,210	2.8	66.1	2.4	22.7
12	35 Other disorders of nervous system w/o cc	6,123	2.3	68.5	3.0	34.2
13	88 Chronic obstructive pulmonary disease	6,067	2.3	70.8	2.0	22.9
14	236 Fractures of hip & pelvis	5,521	2.1	72.9	2.5	31.1
15	14 Specific cerebrovascular disorders except tia	4,620	1.8	74.7	2.8	41.4
16	127 Heart failure & shock	3,733	1.4	76.1	1.1	19.8
17	467 Other factors influencing health status	3,700	1.4	77.6	1.0	19.1
18	133 Atherosclerosis w/o cc	3,132	1.2	78.8	0.8	17.9
19	248 Tendonitis, myositis & bursitis	3,086	1.2	79.9	1.1	23.5
20	34 Other disorders of nervous system w cc	3,063	1.2	81.1	1.9	42.8
21	430 Psychoses	2,967	1.1	82.2	1.1	25.5
22	13 Multiple sclerosis & cerebellar ataxia	2,485	1.0	83.2	1.1	31.5
23	244 Bone diseases & specific arthropathies w cc	2,202	0.8	84.0	0.8	24.4
24	19 Cranial & peripheral nerve disorders w/o cc	1,751	0.7	84.7	0.8	31.0
25	132 Atherosclerosis w cc	1,725	0.7	85.4	0.5	18.4
26	17 Nonspecific cerebrovascular disorders w/o cc	1,659	0.6	86.0	0.8	33.0
27	254 Fracture, sprn, strn & disl of uparm,lowleg ex foot age >17 w/o cc	1,502	0.6	86.6	0.4	19.9
28	134 Hypertension	1,234	0.5	87.1	0.3	17.8
29	297 Nutritional & misc metabolic disorders age >17 w/o cc	1,190	0.5	87.5	0.4	24.2
30	209 Major joint & limb reattachment procedures of lower extremity	1,168	0.4	88.0	0.4	22.1
	Total (top 30 DRGs)	229,515	88.0		87.7	
	Grand total	260,914	100.0			

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/30 – Private hospitals (accredited medical institutions) members of Aiop: top 30 DRGs according to the number of discharges (Medicare version DRG 10.0) – Inpatient rehabilitation cases. Year 2004

Rank	DRG	Discharged			% of total days	Average length of stay	In - hospital days	
		Total number	%	Cumulative %				
1	256	Other musculoskeletal system & connective tissue diagnoses	18,585	19.3	19.3	14.4	20.7	385,231
2	12	Degenerative nervous system disorders	10,532	10.9	30.2	17.0	43.4	457,077
3	249	Aftercare, musculoskeletal system & connective tissue	7,652	7.9	38.2	9.5	33.4	255,426
4	247	Signs & symptoms of musculoskeletal system & conn tissue	7,254	7.5	45.7	7.3	26.9	195,107
5	145	Other circulatory system diagnoses w/o cc	5,723	5.9	51.7	3.5	16.5	94,353
6	245	Bone diseases & specific arthropathies w/o cc	5,357	5.6	57.2	4.4	22.0	117,900
7	462	Rehabilitation	3,972	4.1	61.4	3.0	20.4	80,857
8	243	Medical back problems	2,944	3.1	64.4	2.6	24.0	70,628
9	144	Other circulatory system diagnoses w cc	2,628	2.7	67.2	2.0	20.0	52,475
10	236	Fractures of hip & pelvis	1,947	2.0	69.2	2.6	35.4	68,894
11	9	Spinal disorders & injuries	1,932	2.0	71.2	3.1	43.0	83,039
12	35	Other disorders of nervous system w/o cc	1,868	1.9	73.1	2.5	36.3	67,795
13	88	Chronic obstructive pulmonary disease	1,823	1.9	75.0	2.0	29.9	54,588
14	87	Pulmonary edema & respiratory failure	1,635	1.7	76.7	1.8	29.0	47,390
15	133	Atherosclerosis w/o cc	1,609	1.7	78.4	1.2	20.1	32,415
16	248	Tendonitis, myositis & bursitis	1,261	1.3	79.7	1.3	28.4	35,773
17	467	Other factors influencing health status	1,152	1.2	80.9	0.9	21.2	24,371
18	14	Specific cerebrovascular disorders except tia	1,039	1.1	82.0	1.6	41.6	43,228
19	34	Other disorders of nervous system w cc	982	1.0	83.0	1.7	47.7	46,878
20	127	Heart failure & shock	952	1.0	84.0	0.7	20.7	19,663
21	209	Major joint & limb reattachment procedures of lower extremity	950	1.0	85.0	0.6	17.4	16,533
22	244	Bone diseases & specific arthropathies w cc	860	0.9	85.9	0.9	28.3	24,375
23	17	Nonspecific cerebrovascular disorders w/o cc	779	0.8	86.7	1.1	39.1	30,454
24	19	Cranial & peripheral nerve disorders w/o cc	776	0.8	87.5	1.0	34.0	26,362
25	430	Psychoses	690	0.7	88.2	1.0	37.5	25,843
26	132	Atherosclerosis w cc	643	0.7	88.9	0.5	21.4	13,732
27	136	Cardiac congenital & valvular disorders age >17 w/o cc	500	0.5	89.4	0.4	19.0	9,477
28	254	Fracture, sprn, strn & disl of uparm,lowleg ex foot age >17 w/o cc	497	0.5	89.9	0.5	28.2	14,021
29	130	Peripheral vascular disorders w cc	462	0.5	90.4	0.3	19.7	9,108
30	134	Hypertension	415	0.4	90.8	0.3	20.9	8,658
		Total (top 30 DRGs)	87,419	90.8				2,411,651
		Grand total	96,271					2,680,854

Source: data processing provided by Ermenea on information supplied by Aiop

Table S/31 – Total number of public and private hospitals: description of activity following Major Diagnostic Categories (MDC) – Inpatient acute cases. Year 2003

MDC	Number of cases	%	In – hospital days	Average length of stay	% of one-day cases
01 – Diseases and disorders of the nervous system	639,151	7.6	4,949,829	7.7	12.1
02 – Diseases and disorders of the eye	236,616	2.8	717,851	3.0	29.1
03 – Diseases and disorders of the ear, nose, mouth and throat	378,783	4.5	1,417,917	3.7	19.0
04 – Diseases and disorders of the respiratory system	616,834	7.3	5,769,190	9.4	7.1
05 – Diseases and disorders of the circulatory system	1,208,502	14.3	8,410,967	7.0	11.5
06 – Diseases and disorders of the digestive system	855,871	10.1	5,649,268	6.6	14.7
07 – Diseases and disorders of the hepatobiliary system and pancreas	358,017	4.2	3,186,156	8.9	5.6
08 – Diseases and disorders of the musculoskeletal system and connective tissue	1,002,431	11.9	6,407,496	6.4	17.9
09 – Diseases and disorders of the skin, subcutaneous tissues and breast	301,519	3.6	1,493,674	5.0	25.1
10 – Endocrine, nutritional and metabolic diseases and disorders	195,039	2.3	1,228,080	6.3	7.7
11 – Diseases and disorders of the kidney and urinary tract	401,958	4.8	2,742,286	6.8	10.3
12 – Diseases and disorders of the male reproductive system	160,710	1.9	879,367	5.5	16.0
13 – Diseases and disorders of the female reproductive system	277,316	3.3	1,304,765	4.7	18.6
14 – Pregnancy, childbirth and the puerperium	762,379	9.0	3,105,037	4.1	10.9
15 – Newborns and other neonates with conditions originating in the perinatal period	144,014	1.7	1,103,921	7.7	5.8
16 – Diseases and disorders of the blood, blood-forming organs and immunitary system	83,591	1.0	675,075	8.1	8.4
17 – Mieloproliferative diseases and disorders and poorly differentiated neoplasms	253,050	3.0	1,715,162	6.8	10.4
18 – Infectious and parasitic diseases (systemic or unspecified sides)	89,157	1.1	752,736	8.4	10.0
19 – Mental diseases and disorders	197,001	2.3	2,646,954	13.4	8.0
20 – Alcohol/drug use and alcohol/drug induced organic mental disorders	28,010	0.3	207,772	7.4	31.2
21 – Injuries, poisonings and toxic effects of drugs	77,928	0.9	365,521	4.7	30.6
22 – Burns	6,687	0.1	75,456	11.3	13.7
23 – Factors influencing health status and other contacts with health services	97,726	1.2	439,992	4.5	27.1
24 – Multiple significant trauma	9,969	0.1	138,929	13.9	11.0
25 – Human immunodeficiency virus infections	14,696	0.2	208,885	14.2	6.0
Other DRGs	46,516	0.6	1,002,156	21.5	7.0
Grand total	8,443,471	100.0	56,594,442	6.7	13.6

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/32 – Total number of public and private hospitals: description of activity following Major Diagnostic Categories (MDC) – Acute cases – Day care discharges. Year 2003

MDC	Number of cases	%	In – hospital days	Average number of accesses	% of single access
01 – Diseases and disorders of the nervous system	181,714	5.1	410,386	2.3	58.1
02 – Diseases and disorders of the eye	433,029	12.1	765,051	1.8	60.3
03 – Diseases and disorders of the ear, nose, mouth and throat	178,921	5.0	337,793	1.9	61.3
04 – Diseases and disorders of the respiratory system	89,073	2.5	267,509	3.0	49.2
05 – Diseases and disorders of the circulatory system	256,654	7.2	596,950	2.3	55.6
06 – Diseases and disorders of the digestive system	229,566	6.4	476,606	2.1	57.5
07 – Diseases and disorders of the hepatobiliary system and pancreas	104,966	2.9	332,591	3.2	46.2
08 – Diseases and disorders of the musculoskeletal system and connective tissue	352,540	9.9	767,161	2.2	61.1
09 – Diseases and disorders of the skin, subcutaneous tissues and breast	277,024	7.8	608,262	2.2	60.5
10 – Endocrine, nutritional and metabolic diseases and disorders	181,435	5.1	365,239	2.0	60.0
11 – Diseases and disorders of the kidney and urinary tract	153,073	4.3	449,429	2.9	56.4
12 – Diseases and disorders of the male reproductive system	89,008	2.5	157,029	1.8	64.7
13 – Diseases and disorders of the female reproductive system	180,536	5.1	282,717	1.6	70.5
14 – Pregnancy, childbirth and the puerperium	181,325	5.1	268,676	1.5	70.8
15 – Newborns and other neonates with conditions originating in the perinatal period	5,537	0.2	10,889	2.0	61.9
16 – Diseases and disorders of the blood, blood-forming organs and immunitary system	82,742	2.3	395,986	4.8	44.3
17 – Myeloproliferative diseases and disorders and poorly differentiated neoplasms	361,467	10.1	2,300,605	6.4	33.1
18 – Infectious and parasitic diseases (systemic or unspecified sides)	16,859	0.5	56,737	3.4	45.9
19 – Mental diseases and disorders	55,915	1.6	308,175	5.5	40.4
20 – Alcohol/drug use and alcohol/drug induced organic mental disorders	1,530	0.0	13,253	8.7	23.4
21 – Injuries, poisonings and toxic effects of drugs	18,232	0.5	52,449	2.9	49.3
22 – Burns	579	0.0	2,354	4.1	39.7
23 – Factors influencing health status and other contacts with health services	112,027	3.1	263,196	2.3	66.0
24 – Multiple significant trauma	12	0.0	17	1.4	83.3
25 – Human immunodeficiency virus infections	21,935	0.6	125,348	5.7	27.7
Other DRGs	7,685	0.2	19,479	2.5	58.0
Grand total	3,573,384	100.0	9,633,887	2.7	56.5

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/33 – Total number of public and private hospitals: description of activity following Major Diagnostic Categories (MDC) – Inpatient rehabilitation cases. Year 2003

MDC	Number of cases	%	In – hospital days	Average length of stay	% of one-day cases
01 – Diseases and disorders of the nervous system	61,924	23.7	2,440,921	39.4	1.3
02 – Diseases and disorders of the eye	105	0.0	1,618	15.4	4.8
03 – Diseases and disorders of the ear, nose, mouth and throat	169	0.1	3,038	18.0	14.8
04 – Diseases and disorders of the respiratory system	16,530	6.3	369,891	22.4	3.1
05 – Diseases and disorders of the circulatory system	41,889	16.1	750,974	17.9	1.3
06 – Diseases and disorders of the digestive system	550	0.2	10,334	18.8	3.6
07 – Diseases and disorders of the hepatobiliary system and pancreas	245	0.1	4,893	20.0	5.3
08 – Diseases and disorders of the musculoskeletal system and connective tissue	106,817	40.9	2,563,849	24.0	0.9
09 – Diseases and disorders of the skin, subcutaneous tissues and breast	375	0.1	11,179	29.8	3.2
10 – Endocrine, nutritional and metabolic diseases and disorders	1,854	0.7	46,364	25.0	0.9
11 – Diseases and disorders of the kidney and urinary tract	720	0.3	10,324	14.3	11.4
12 – Diseases and disorders of the male reproductive system	81	0.0	650	8.0	42.0
13 – Diseases and disorders of the female reproductive system	83	0.0	1,519	18.3	1.2
14 – Pregnancy, childbirth and the puerperium	2	0.0	17	8.5	0.0
15 – Newborns and other neonates with conditions originating in the perinatal period	53	0.0	589	11.1	0.0
16 – Diseases and disorders of the blood, blood-forming organs and immunitary system	79	0.0	1,329	16.8	5.1
17 – Myeloproliferative diseases and disorders and poorly differentiated neoplasms	167	0.1	3,180	19.0	6.6
18 – Infectious and parasitic diseases (systemic or unspecified sites)	127	0.0	3,186	25.1	4.7
19 – Mental diseases and disorders	7,029	2.7	201,590	28.7	5.4
20 – Alcohol/drug use and alcohol/drug induced organic mental disorders	1,198	0.5	29,456	24.6	1.5
21 – Injuries, poisonings and toxic effects of drugs	642	0.2	14,549	22.7	1.1
22 – Burns	11	0.0	530	48.2	0.0
23 – Factors influencing health status and other contacts with health services	19,650	7.5	378,734	19.3	1.9
24 – Multiple significant trauma	282	0.1	14,656	52.0	0.7
25 – Human immunodeficiency virus infections	6	0.0	116	19.3	16.7
Other DRGs	326	0.1	18,516	56.8	0.3
Grand total	260,914	100.0	6,882,002	26.4	1.5

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/34 – Total number of public and private hospitals: description of activity following Major Diagnostic Categories (MDC) – Rehabilitation cases – Day care discharges. Year 2003

MDC	Number of cases	%	In – hospital days	Average number of accesses	% of single access
01 – Diseases and disorders of the nervous system	17,559	32.8	241,086	13.7	26.4
02 – Diseases and disorders of the eye	183	0.3	482	2.6	51.9
03 – Diseases and disorders of the ear, nose, mouth and throat	1,926	3.6	11,741	6.1	23.2
04 – Diseases and disorders of the respiratory system	3,629	6.8	24,269	6.7	54.9
05 – Diseases and disorders of the circulatory system	7,086	13.2	63,388	8.9	21.5
06 – Diseases and disorders of the digestive system	297	0.6	3,637	12.2	13.5
07 – Diseases and disorders of the hepatobiliary system and pancreas	53	0.1	403	7.6	7.5
08 – Diseases and disorders of the musculoskeletal system and connective tissue	11,402	21.3	168,119	14.7	10.6
09 – Diseases and disorders of the skin, subcutaneous tissues and breast	314	0.6	3,085	9.8	10.2
10 – Endocrine, nutritional and metabolic diseases and disorders	481	0.9	4,237	8.8	12.3
11 – Diseases and disorders of the kidney and urinary tract	214	0.4	1,621	7.6	27.6
12 – Diseases and disorders of the male reproductive system	15	0.0	39	2.6	53.3
13 – Diseases and disorders of the female reproductive system	32	0.1	176	5.5	28.1
14 – Pregnancy, childbirth and the puerperium	2	0.0	3	1.5	50.0
15 – Newborns and other neonates with conditions originating in the perinatal period	26	0.0	341	13.1	38.5
16 – Diseases and disorders of the blood, blood-forming organs and immunitary system	20	0.0	137	6.9	20.0
17 – Myeloproliferative diseases and disorders and poorly differentiated neoplasms	99	0.2	1,026	10.4	8.1
18 – Infectious and parasitic diseases (systemic or unspecified sides)	7	0.0	107	15.3	28.6
19 – Mental diseases and disorders	4,499	8.4	40,583	9.0	53.0
20 – Alcohol/drug use and alcohol/drug induced organic mental disorders	184	0.3	1,979	10.8	2.2
21 – Injuries, poisonings and toxic effects of drugs	205	0.4	2,680	13.1	4.9
22 – Burns	5	0.0	72	14.4	0.0
23 – Factors influencing health status and other contacts with health services	5,308	9.9	72,275	13.6	14.1
24 – Multiple significant trauma	26	0.0	648	24.9	11.5
25 – Human immunodeficiency virus infections	-	-	-	-	-
Other DRGs	26	0.0	198	7.6	38.5
Grand total	53,598	100.0	642,332	12.0	24.8

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/35 – Total number of public and private hospitals: description of activity following Major Diagnostic Categories (MDC) – Long-stay cases. Year 2003

MDC	Number of cases	%	In – hospital days	Average length of stay	% of one-day cases
01 – Diseases and disorders of the nervous system	17,375	19.7	667,914	38.4	2.0
02 – Diseases and disorders of the eye	69	0.1	2,364	34.3	2.9
03 – Diseases and disorders of the ear, nose, mouth and throat	551	0.6	13,229	24.0	4.4
04 – Diseases and disorders of the respiratory system	9,697	11.0	252,717	26.1	3.2
05 – Diseases and disorders of the circulatory system	11,794	13.4	341,005	28.9	2.9
06 – Diseases and disorders of the digestive system	4,118	4.7	109,602	26.6	3.4
07 – Diseases and disorders of the hepatobiliary system and pancreas	3,359	3.8	86,120	25.6	3.1
08 – Diseases and disorders of the musculoskeletal system and connective tissue	14,012	15.9	452,323	32.3	0.8
09 – Diseases and disorders of the skin, subcutaneous tissues and breast	1,688	1.9	56,109	33.2	2.0
10 – Endocrine, nutritional and metabolic diseases and disorders	1,826	2.1	52,369	28.7	2.1
11 – Diseases and disorders of the kidney and urinary tract	2,386	2.7	69,133	29.0	2.0
12 – Diseases and disorders of the male reproductive system	444	0.5	11,413	25.7	4.3
13 – Diseases and disorders of the female reproductive system	437	0.5	11,853	27.1	3.0
14 – Pregnancy, childbirth and the puerperium	3	0.0	40	13.3	33.3
15 – Newborns and other neonates with conditions originating in the perinatal period	14	0.0	380	27.1	0.0
16 – Diseases and disorders of the blood, blood-forming organs and immunitary system	746	0.8	18,675	25.0	2.3
17 – Myeloproliferative diseases and disorders and poorly differentiated neoplasms	1,749	2.0	42,532	24.3	3.3
18 – Infectious and parasitic diseases (systemic or unspecified sides)	734	0.8	21,181	28.9	3.1
19 – Mental diseases and disorders	10,335	11.7	438,494	42.4	2.4
20 – Alcohol/drug use and alcohol/drug induced organic mental disorders	753	0.9	21,035	27.9	3.3
21 – Injuries, poisonings and toxic effects of drugs	262	0.3	8,691	33.2	3.4
22 – Burns	15	0.0	638	42.5	0.0
23 – Factors influencing health status and other contacts with health services	5,189	5.9	142,122	27.4	2.9
24 – Multiple significant trauma	160	0.2	7,785	48.7	0.6
25 – Human immunodeficiency virus infections	17	0.0	771	45.4	5.9
Other DRGs	335	0.4	20,920	62.4	0.9
Grand total	88,068	100.0	2,849,415	32.4	2.4

Source: data supplied by the Italian Ministry of Health – Hospital Discharge Abstract data 2003

Table S/36 – Private hospitals activity (accredited medical institutions) according to specialty. Year 2003 (National data)

Specialty	Total					Private hospitals (accredited institutions) members of Aiop				
	Beds	Patients	In-hospital days	ALOS	Occupancy %	Beds	Patients	In-hospital days	ALOS	Occupancy %
Angiology	122	1,666	16,404	9.8	36.8	105	1,183	9,733	8.2	25.4
Casualty department	21	1,700	3,568	2.1	46.5	21	1,700	3,568	2.1	46.5
Heart surgery	620	30,458	180,926	5.9	79.9	565	26,953	167,571	6.2	81.3
Cardiology	1,634	77,608	381,304	4.9	63.9	1,448	69,502	348,102	5.0	65.9
General surgery	6,156	235,504	999,724	4.2	44.5	5,457	210,630	884,789	4.2	44.4
Maxillofacial surgery	94	2,674	9,704	3.6	28.3	94	2,674	9,704	3.6	28.3
Plastic surgery	134	3,941	11,507	2.9	23.5	94	2,441	8,136	3.3	23.7
Thoracic surgery	57	1,380	7,864	5.7	37.8	35	568	3,347	5.9	26.2
Vascular surgery	391	17,952	83,534	4.7	58.5	333	15,662	72,277	4.6	59.5
Dermatology	61	886	7,717	8.7	34.7	61	886	7,717	8.7	34.7
Haemodialysis	6	44	2,204	50.1	100.6	6	44	2,204	50.1	100.6
Gastro-enterology	68	2,551	16,545	6.5	66.7	68	2,551	16,545	6.5	66.7
Geriatrics	788	17,298	175,133	10.1	60.9	746	15,792	167,830	10.6	61.6
Long-stay patients	4,869	35,355	1,609,165	45.5	90.5	4,209	30,699	1,413,415	46.0	92.0
Endocrine, nutritional and metabolic diseases	80	1,665	16,943	10.2	58.0	80	1,665	16,943	10.2	58.0
General medicine	6,583	190,500	1,553,784	8.2	64.7	5,542	163,335	1,316,962	8.1	65.1
Nephrology	135	3,103	24,593	7.9	49.9	115	2,494	20,662	8.3	49.2
Neonatology	51	1,672	8,881	5.3	47.7	41	1,442	7,999	5.5	53.5
Neurosurgery	221	8,929	41,830	4.7	51.9	158	6,845	29,610	4.3	51.3
Neurology	1,762	29,967	506,523	16.9	78.8	1,618	26,431	468,921	17.7	79.4
Child psychiatry	10	5	94	18.8	2.6	10	5	94	18.8	2.6
Neurological rehabilitation	379	2,582	117,816	45.6	85.2	278	1,895	93,133	49.1	91.8

(Cont. from previous page) Table S/36 – Private hospitals activity (accredited medical institutions) according to specialty. Year 2003 (National data)

Specialty	Total					Private hospitals (accredited institutions) members of Aiop				
	Beds	Patients	In-hospital days	ALOS	Occupancy %	Beds	Patients	In-hospital days	ALOS	Occupancy %
Day nursery	194	7,177	28,297	3.9	40.0	194	7,177	28,297	3.9	40.0
Ophthalmology	1,233	66,378	152,646	2.3	33.9	1,019	55,903	126,771	2.3	34.1
Oncology	575	35,740	128,072	3.6	61.0	383	29,987	88,976	3.0	63.6
Orthopedics and Traumatology	4,237	222,700	962,086	4.3	62.2	3,767	199,763	873,783	4.4	63.5
Obstetrics and gynaecology	2,495	134,445	510,145	3.8	56.0	2,300	126,318	481,890	3.8	57.4
Otorhinolaryngology	796	33,324	85,643	2.6	29.5	652	27,561	70,895	2.6	29.8
Paediatrics	60	3,852	11,354	2.9	51.8	49	3,090	8,981	2.9	50.2
Pneumology	349	5,158	113,864	22.1	89.4	349	5,158	113,864	22.1	89.4
Psychiatry	3,201	30,595	1,021,109	33.4	87.4	2,938	28,971	964,348	33.3	89.9
Radiotherapeutics	40	354	12,034	34.0	82.4	40	354	12,034	34.0	82.4
Oncology radiotherapeutics	7	362	1,987	5.5	77.8	7	362	1,987	5.5	77.8
Functional recovery and rehabilitation	9,208	123,248	3,167,317	25.7	94.2	7,398	97,428	2,526,051	25.9	93.5
Rheumatology	130	3,617	38,392	10.6	80.9	130	3,617	38,392	10.6	80.9
Intensive care	243	13,305	59,290	4.5	66.8	195	10,435	49,159	4.7	69.1
Neonatal intensive care	6	260	1,013	3.9	46.3	6	260	1,013	3.9	46.3
Coronary care	103	6,362	28,018	4.4	74.5	87	5,599	25,571	4.6	80.5
Spinal care	5	17	1,806	106.2	99.0	5	17	1,806	106.2	99.0
Urology	1,242	51,768	233,172	4.5	51.4	1,011	41,219	183,580	4.5	49.7
Total	48,366	1,377,980	12,332,008	8.9	69.9	41,614	1,204,044	10,666,660	8.9	70.2

Source: data processing provided by Ermenea on information supplied by the Italian Ministry of Health

Table S/37 – Private hospitals activity (accredited medical institutions) according to specialty. Year 2003 (North)

Specialty	Total					Private hospitals (accredited institutions) members of Aiop				
	Beds	Patients	In-hospital days	ALOS	Occupancy %	Beds	Patients	In-hospital days	ALOS	Occupancy %
Angiology	30	679	5,588	8.2	51.0	30	679	5,588	8.2	51.0
Heart surgery	372	17,561	101,004	5.8	74.4	317	14,056	87,649	6.2	75.8
Cardiology	626	33,305	145,412	4.4	63.6	516	26,999	123,787	4.6	65.7
General surgery	1,896	72,425	251,037	3.5	36.3	1,521	60,659	200,829	3.3	36.2
Maxillofacial surgery	64	1,823	6,610	3.6	28.3	64	1,823	6,610	3.6	28.3
Plastic surgery	89	3,058	8,649	2.8	26.6	49	1,558	5,278	3.4	29.5
Thoracic surgery	56	1,373	7,838	5.7	38.3	34	561	3,321	5.9	26.8
Vascular surgery	289	13,094	60,615	4.6	57.5	231	10,804	49,358	4.6	58.5
Dermatology	56	810	6,945	8.6	34.0	56	810	6,945	8.6	34.0
Gastro-enterology	8	747	4,848	6.5	166.0	8	747	4,848	6.5	166.0
Geriatrics	217	5,339	42,441	7.9	53.6	175	3,833	35,138	9.2	55.0
Long-stay patients	1,703	20,622	606,301	29.4	97.5	1,369	16,738	494,020	29.5	98.9
Endocrine, nutritional and metabolic diseases	9	349	2,994	8.6	91.1	9	349	2,994	8.6	91.1
General medicine	2,556	61,229	549,447	9.0	58.9	1,860	45,590	407,792	8.9	60.1
Nephrology	20	609	3,931	6.5	53.8	-	-	-	-	-
Neonatology	10	230	882	3.8	24.2	-	-	-	-	-
Neurosurgery	161	6,766	29,406	4.3	50.0	103	4,696	17,238	3.7	45.9
Neurology	401	11,144	122,920	11.0	84.0	305	8,080	101,475	12.6	91.2
Neurological rehabilitation	40	353	12,127	34.4	83.1	20	126	7,711	61.2	105.6
Ophthalmology	404	12,725	23,830	1.9	16.2	308	9,803	17,403	1.8	15.5
Oncology	202	7,866	49,386	6.3	67.0	86	3,243	21,001	6.5	66.9
Orthopedics and Traumatology	1,774	112,175	377,429	3.4	58.3	1,441	95,611	319,518	3.3	60.7
Obstetrics and gynecology	466	19,947	63,914	3.2	37.6	373	15,254	46,500	3.0	34.2
Otorhinolaryngology	290	17,109	41,606	2.4	39.3	207	13,206	33,062	2.5	43.8
Pediatrics	25	1,553	5,090	3.3	55.8	14	791	2,717	3.4	53.2
Pneumology	258	3,103	97,838	31.5	103.9	258	3,103	97,838	31.5	103.9
Psychiatry	1,558	16,889	498,640	29.5	87.7	1,330	15,477	454,616	29.4	93.6
Functional recovery and rehabilitation	4,517	71,439	1,588,945	22.2	96.4	3,309	51,004	1,136,025	22.3	94.1
Rheumatology	20	501	3,137	6.3	43.0	20	501	3,137	6.3	43.0
Intensive care	188	10,957	44,989	4.1	65.6	140	8,087	34,858	4.3	68.2
Coronary care	34	1,933	6,383	3.3	51.4	18	1,170	3,936	3.4	59.9
Urology	573	23,123	97,459	4.2	46.6	370	13,891	58,308	4.2	43.2
Total	18,912	539,819	4,867,641	9.0	70.5	14,541	420,664	3,789,500	9.0	71.4

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table S/38 – Private hospitals activity (accredited medical institutions) according to specialty. Year 2003 (Centre)

Specialty	Total					Private hospitals (accredited institutions) members of Aiop				
	Beds	Patients	In-hospital days	ALOS	Occupancy %	Beds	Patients	In-hospital days	ALOS	Occupancy %
Angiology	67	633	9,092	14.4	37.2	50	150	2,421	16.1	13.3
Casualty department	19	858	2,724	3.2	39.3	19	858	2,724	3.2	39.3
Heart surgery	32	1,053	8,107	7.7	69.4	32	1,053	8,107	7.7	69.4
Cardiology	236	5,611	41,982	7.5	48.7	178	4,547	34,882	7.7	53.7
General surgery	1,146	36,934	186,730	5.1	44.6	986	32,037	160,754	5.0	44.7
Thoracic surgery	1	7	26	3.7	7.1	1	7	26	3.7	7.1
Vascular surgery	10	471	2,159	4.6	59.2	10	471	2,159	4.6	59.2
Geriatrics	49	1,900	15,269	8.0	85.4	49	1,900	15,269	8.0	85.4
Long-stay patients	2,248	9,484	668,532	70.5	81.5	1,975	8,862	595,054	67.1	82.5
Endocrine, nutritional and metabolic diseases	18	106	2,850	26.9	43.4	18	106	2,850	26.9	43.4
General medicine	1,361	45,771	374,183	8.2	75.3	1,115	38,795	313,709	8.1	77.1
Nephrology	66	774	8,892	11.5	36.9	66	774	8,892	11.5	36.9
Neonatology	6	405	1,970	4.9	90.0	6	405	1,970	4.9	90.0
Neurosurgery	10	324	3,654	11.3	100.1	10	324	3,654	11.3	100.1
Neurology	170	1,421	49,195	34.6	79.3	122	949	33,038	34.8	74.2
Neurological rehabilitation	41	255	15,300	60.0	102.2	-	-	-	-	-
Ophthalmology	245	13,104	28,192	2.2	31.5	151	7,206	14,647	2.0	26.6
Oncology	30	907	8,699	9.6	79.4	10	653	2,065	3.2	56.6
Orthopedics and Traumatology	923	37,496	212,691	5.7	63.1	826	33,997	190,470	5.6	63.2
Obstetrics and gynecology	344	15,569	60,536	3.9	48.2	329	15,506	60,216	3.9	50.1
Otorhinolaryngology	122	3,335	7,835	2.3	17.6	102	2,562	6,057	2.4	16.3
Pneumology	13	343	3,068	8.9	64.7	13	343	3,068	8.9	64.7
Psychiatry	1,172	6,431	368,398	57.3	86.1	1,137	6,219	355,661	57.2	85.7
Radiotherapeutics	40	354	12,034	34.0	82.4	40	354	12,034	34.0	82.4
Functional recovery and rehabilitation	2,891	29,985	1,023,693	34.1	97.0	2,384	25,347	854,335	33.7	98.2
Intensive care	23	724	5,592	7.7	66.6	23	724	5,592	7.7	66.6
Neonatal intensive care	6	260	1,013	3.9	46.3	6	260	1,013	3.9	46.3
Coronary care	34	1,172	8,151	7.0	65.7	34	1,172	8,151	7.0	65.7
Urology	165	5,045	26,888	5.3	44.6	158	5,033	26,843	5.3	46.5
Total	11,488	216,318	3,157,455	14.6	75.3	9,850	186,803	2,725,661	14.6	75.8

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

Table S/39 – Private hospitals activity (accredited medical institutions) according to specialty. Year 2003 (South)

Specialty	Total					Private hospitals (accredited institutions) members of Aiop				
	Beds	Patients	In-hospital days	ALOS	Occupancy %	Beds	Patients	In-hospital days	ALOS	Occupancy %
Angiology	25	354	1,724	4.9	18.9	25	354	1,724	4.9	18.9
Casualty department	2	842	844	1.0	115.6	2	842	844	1.0	115.6
Heart surgery	216	11,844	71,815	6.1	91.1	216	11,844	71,815	6.1	91.1
Cardiology	772	38,692	193,910	5.0	68.8	754	37,956	189,433	5.0	68.8
General surgery	3,114	126,145	561,957	4.5	49.4	2,950	117,934	523,206	4.4	48.6
Maxillofacial surgery	30	851	3,094	3.6	28.3	30	851	3,094	3.6	28.3
Plastic surgery	45	883	2,858	3.2	17.4	45	883	2,858	3.2	17.4
Vascular surgery	92	4,387	20,760	4.7	61.8	92	4,387	20,760	4.7	61.8
Dermatology	5	76	772	10.2	42.3	5	76	772	10.2	42.3
Haemodialysis	6	44	2,204	50.1	100.6	6	44	2,204	50.1	100.6
Gastro-enterology	60	1,804	11,697	6.5	53.4	60	1,804	11,697	6.5	53.4
Geriatrics	522	10,059	117,423	11.7	61.6	522	10,059	117,423	11.7	61.6
Long-stay patients	918	5,249	334,332	63.7	99.8	865	5,099	324,341	63.6	102.7
Endocrine, nutritional and metabolic diseases	53	1,210	11,099	9.2	57.4	53	1,210	11,099	9.2	57.4
General medicine	2,666	83,500	630,154	7.5	64.8	2,567	78,950	595,461	7.5	63.6
Nephrology	49	1,720	11,770	6.8	65.8	49	1,720	11,770	6.8	65.8
Neonatology	35	1,037	6,029	5.8	47.2	35	1,037	6,029	5.8	47.2
Neurosurgery	50	1,839	8,770	4.8	48.1	45	1,825	8,718	4.8	53.1
Neurology	1,191	17,402	334,408	19.2	76.9	1,191	17,402	334,408	19.2	76.9
Child psychiatry	10	5	94	18.8	2.6	10	5	94	18.8	2.6
Neurological rehabilitation	298	1,974	90,389	45.8	83.1	258	1,769	85,422	48.3	90.7
Day nursery	194	7,177	28,297	3.9	40.0	194	7,177	28,297	3.9	40.0
Ophthalmology	584	40,549	100,624	2.5	47.2	560	38,894	94,721	2.4	46.3
Oncology	343	26,967	69,987	2.6	55.9	287	26,091	65,910	2.5	62.9
Orthopedics and Traumatology	1,540	73,029	371,966	5.1	66.2	1,500	70,155	363,795	5.2	66.4
Obstetrics and gynecology	1,685	98,929	385,695	3.9	62.7	1,598	95,558	375,174	3.9	64.3
Otorhinolaryngology	384	12,880	36,202	2.8	25.8	343	11,793	31,776	2.7	25.4
Pediatrics	35	2,299	6,264	2.7	49.0	35	2,299	6,264	2.7	49.0
Pneumology	78	1,712	12,958	7.6	45.5	78	1,712	12,958	7.6	45.5
Psychiatry	471	7,275	154,071	21.2	89.6	471	7,275	154,071	21.2	89.6

(Cont. from previous page) **Table S/39 – Private hospitals activity (accredited medical institutions) according to specialty. Year 2003 (South)**

Specialty	Total					Private hospitals (accredited institutions) members of Aiop				
	Beds	Patients	In-hospital days	ALOS	Occupancy %	Beds	Patients	In-hospital days	ALOS	Occupancy %
Oncology radiotherapeutics	7	362	1,987	5.5	77.8	7	362	1,987	5.5	77.8
Functional recovery and rehabilitation	1,800	21,824	554,679	25.4	84.4	1,705	21,077	535,691	25.4	86.1
Rheumatology	110	3,116	35,255	11.3	87.8	110	3,116	35,255	11.3	87.8
Intensive care	32	1,624	8,709	5.4	74.6	32	1,624	8,709	5.4	74.6
Coronary care	35	3,257	13,484	4.1	105.5	35	3,257	13,484	4.1	105.5
Spinal care	5	17	1,806	106.2	99.0	5	17	1,806	106.2	99.0
Urology	504	23,600	108,825	4.6	59.2	483	22,295	98,429	4.4	55.8
Total	17,966	621,843	4,306,912	6.9	65.7	17,223	596,577	4,151,499	7.0	66.0

Source: data processing provided by Ermeneia on information supplied by the Italian Ministry of Health

3. Staff information

3.1. Staff fluctuation over the years

The data in table S/60 show an increase of 12,000 units in the total number of staff, which went up from 475,443 to 487,192 (+2.5%) between 1999 and 2003.

Differences can be identified within each category.

If we add the staff numbers of hospital enterprises and those of USL facilities in 1999 and 2003, it is clear that medical and nursing staff numbers increased by 5,800 and 4,900 units respectively, while other staff numbers went up by almost a thousand, as the following figures show:

	1999	2003
– Doctors and dentists	82,859	88,710
– Nurses	209,697	214,670
– Other staff	182,887	183,812

The ratio of hospital staff numbers to the number of beds improved both in hospital enterprises and in USL facilities during 1999 and 2003, (cf. table S/62).

As for hospitals members of Aiop, an increase of 7,579 units, equal to 13.3%, is reported in table S/63. The highest increase concerns nursing staff, followed by an increase in other staff categories and finally in medical staff (table S/64).

3.2. Staff distribution over the territory

According to data provided by ISTAT (National Statistical Institute) in 2002, the total number of hospital staff employed in various healthcare institutions in Italy is almost 634,000 units (table S/65). The geographical distri-

bution confirms the fact that there is a larger number of staff in Northern Italy compared to other areas.

If we consider the staff employed in Aiop medical institutions (data updated to 2004), the total number is 57,383 units (table S/66). This figure includes permanent staff, to which 10,771 units of temporary staff are added, totalling 68,154 units (compared to 65,032 in the previous year).

Table S/60 – Staff progression in Hospital Enterprises and USL facilities (a. v.)

Type of institution	1999		2000		2001		2002		2003	
	Hospital enterprises	USL facilities (*) (**)	Hospital enterprises	USL facilities (*)	Hospital enterprises	USL facilities (*) (**)	Hospital enterprises	USL facilities (**)	Hospital enterprises	USL facilities (*)
Role										
Doctors and dentists	37,340	45,519	37,553	45,042	38,148	46,225	40,093	45,589	40,207	48,503
Nurses	90,510	119,187	90,529	117,513	94,144	120,310	95,012	115,678	94,197	120,473
Other	90,741	92,146	89,599	90,730	89,651	91,088	91,378	87,884	93,528	90,284
Total	218,591	256,852	217,681	253,285	221,943	257,623	226,483	249,151	227,932	259,260

(*) National Health Service and University staff

(**) Residual mental health care facilities are included

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/61 – Hospital enterprises and USL facilities staff (var. %)

	2000/1999		2001/2000		2002/2001		2003/2002		2003/1999	
	Hospital enterprises	Usl hospitals	Hospital enterprises	Usl hospitals	Hospital enterprises	Usl hospitals	Hospital enterprises	Usl hospitals	Hospital enterprises	Usl hospitals
Doctors and dentists	0.6	-1.1	1.6	2.6	5.1	-1.4	0.3	6.4	7.7	6.6
Nurses	0.0	-1.4	4.0	2.4	0.9	-3.9	-0.9	4.1	4.1	1.1
Other	-1.3	-1.5	0.1	0.4	1.9	-3.5	2.4	2.7	3.1	-2.0
Total	-0.4	-1.4	2.0	1.7	2.0	-3.3	0.6	4.1	4.3	0.9

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/62 – Hospital enterprises and USL facilities staff

	1999		2000		2001		2002		2003	
	Hospital enterprises (*)	Usl hospitals (**)	Hospital enterprises (*)	Usl hospitals (**)	Hospital enterprises (*)	Usl hospitals (**)	Hospital enterprises (*)	Usl hospitals (**)	Hospital enterprises (*)	Usl hospitals (**)
Doctors per 10 beds	4.8	4.1	4.8	4.3	5.2	4.5	5.5	4.7	6.1	5.2
Nurses per 10 beds	11.5	10.7	11.9	11.1	12.8	11.6	13.1	12.0	14.3	12.8

(*) National Health Service and University staff

(**) Residual mental health care facilities are included

Note: Doctors and nurses per bed have been calculated on beds actually used

Source: data processing provided by Ermeneia on information available in the Report "Attività Gestionali ed Economiche delle Usl e Aziende Ospedaliere", Italian Ministry of Health, Years 1999, 2000, 2001, 2002 and 2003

Table S/63 – Staff employed in medical institutions members of Aiop. Years 1999-2004

Role	1999	2000	2001	2002	2003	2004
Permanent and temporary medical staff	10,820	11,226	11,595	11,372	11,428	11,717
Nurses	16,498	17,540	18,281	18,238	18,164	18,991
Other	29,849	31,449	32,669	32,207	32,582	34,038
Total	57,167	60,215	62,545	61,817	62,174	64,746

Note: The number of registered staff units can be significantly altered on a yearly basis by institutions associating to Aiop or cancelling their subscription.

Source: data processing provided by Ermeneia on information supplied by Aiop

Table S/64 – Staff employed in medical institutions members of Aiop. Yars 1999-2004 (var. %)

	2000/1999	2001/2000	2002/2001	2003/2002	2004/2003	2004/1999
Permanent and temporary medical staff	3.7	3.3	-1.9	0.5	2.5	8.3
Nurses	6.3	4.2	-0.2	-0.4	4.6	15.1
Other	5.4	3.9	-1.4	1.2	4.5	14.0
Total	5.3	3.9	-1.2	0.6	4.1	13.3

Note: The registered staff units can be significantly altered on a yearly basis by institutions associating to Aiop or cancelling their subscription.

Source: data processing provided by Ermeneia on information supplied by Aiop

Table S/65 – Total hospital staff per region. Year 2002

Regions	Doctors	Hospital auxiliary staff	Other staff	Total staff
– Piemonte	8,684	21,689	20,538	50,911
– Valle d'Aosta	213	543	422	1,178
– Lombardia	19,239	49,623	46,982	115,844
– Trentino-Alto Adige	1,613	5,637	5,848	13,098
– A. P. of Bolzano	830	2,917	3,083	6,830
– A. P. of Trento	783	2,720	2,765	6,268
– Veneto	8,153	24,382	16,778	49,313
– Friuli-Venezia Giulia	2,261	7,301	6,086	15,648
– Liguria	3,163	8,285	6,699	18,147
– Emilia-Romagna	8,695	22,043	15,587	46,325
– Toscana	6,843	18,326	12,758	37,927
– Umbria	1,787	3,920	2,652	8,359
– Marche	2,801	7,624	5,262	15,687
– Lazio	14,164	30,236	26,410	70,810
– Abruzzo	2,419	6,613	4,821	13,853
– Molise	720	1,439	1,051	3,210
– Campania	11,231	21,468	18,417	51,116
– Puglia	7,197	16,301	13,313	36,811
– Basilicata	930	2,457	1,690	5,077
– Calabria	4,046	8,138	7,131	19,315
– Sicilia	10,415	18,141	16,866	45,422
– Sardegna	3,339	7,087	5,588	16,014
North	52,021	139,503	118,940	310,464
Centre	25,595	60,106	47,082	132,783
South	40,297	81,644	68,877	190,818
Italy	117,913	281,253	234,899	634,065

Source: Istat, *Struttura ed attività degli istituti di cura*

Table S/66 – Staff employed in medical institutions members of Aiop. Situation at December 31st, 2004

Regions	Permanent staff						Temporary staff		
	Doctors	Nurses	Technical staff	Hospital auxiliary staff	Other health care staff	Other staff	Total	Doctors	Non medical staff
– Piemonte	170	957	276	635	291	712	3,041	363	363
– Lombardia	751	3,761	950	1,601	634	2,449	10,146	1,649	569
– A. P. of Bolzano	2	60	27	7	17	41	154	15	2
– A. P. of Trento	14	52	27	69	31	63	256	5	37
– Veneto	265	1,137	322	363	499	769	3,355	219	132
– Friuli Venezia Giulia	73	239	75	129	83	215	814	83	49
– Liguria	5	122	15	48	7	113	310	55	52
– Emilia Romagna	170	1,651	422	745	362	1,068	4,418	819	319
– Toscana	115	524	97	188	290	439	1,653	341	158
– Umbria	16	49	13	43	15	43	179	30	30
– Marche	40	236	71	100	94	226	767	142	35
– Lazio	565	3,426	977	2,411	768	2,366	10,513	1,411	846
– Abruzzo	113	638	125	294	49	299	1,518	207	70
– Molise	56	98	41	51	-	107	353	18	2
– Campania	818	2,285	670	1,030	634	1,800	7,237	729	373
– Puglia	435	1,167	534	884	140	988	4,148	137	173
– Basilicata	2	14	2	8	5	10	41	-	1
– Calabria	305	888	296	578	292	858	3,217	355	86
– Sicilia	340	1,305	309	1,022	12	1,086	4,074	617	88
– Sardegna	99	382	67	302	52	287	1,189	168	23
Italy	4,354	18,991	5,316	10,508	4,275	13,939	57,383	7,363	3,408

Source: Aiop

4. *Expense data*

4.1. **Economic flows over the years**

Total public expenditure for hospitals in 2004 reached 46.9 billion euros compared to 44.1 billion euros of the previous year (with a 6.4% increase) (table S/67).

Private hospital expenditure (accredited medical institutions) reached 3.6 billion euros, equal to 7.8% of the total public funds spent on hospitals.

In actual fact, private expenditure gradually decreased: from 8.4% in 2000 to 7.9% in 2003, thus reaching the above-mentioned figures in 2004.

With stable costs (table S/68), the overall increase of total public expenditure for hospitals between 2000 and 2004 was 7.5%. While during the same period the expense related to private hospitals (accredited medical institutions) decreased by -1.1%.

4.2. **Comparison between private and public hospitals expenses**

The recently issued OECD study (October 2005) provides data on health expenses. Table S/69 shows a comparison between the incidence of total health expenses and public health expenditure in relation to GDP.

In 2003 Italian public health expenditure matched the average of European OECD Countries (6.2% compared to 6.5%) and was lower than the average of G7 countries which is 7.0%.

As for the total of health expenses, Italy shows the lowest percentages compared to the average of the G7 countries (8.0% compared to 10.6%) and remains slightly below the average of European OECD Countries (8.7%).

Even this increasing trend over the years reflects the reference points under consideration (G7 countries and European OECD countries).

However, Italy's figures (8% of GDP) are still below those recorded in the most industrialised countries. The highest levels of health expense are re-

corded in the United States 14.7%, Germany 10.8%, France 9.9% and Canada 9.4% (2003). The same is true for public health expenditure, though a narrower gap is recorded.

Therefore, as it is well known, Italy does not invest significant financial resources in the health sector in relation to its GDP. Problems exist not only about the quantity, but also the quality and distribution of expenses.

If we consider only the hospital expense incurred in Italy (table S/70), it emerges that:

- a higher percentage (54.1%) of the total health public expenditure is recorded compared to both the average of the G7 countries (43.5%) and the average of European OECD Countries (49.0%);
- a percentage of GDP which is similar to the average of G7 countries (3.1%) and of the European OECD Countries (3.4%).

Table S/67 – Current health expense. Years 2000-2004 (in billion euros)

	2000	2001	2002	2003	2004
Public hospitals and hospital enterprises	31,085	32,828	34,419	35,702	38,022
Medical Institutions operating within the national health system	8,019	7,997	8,151	8,430	8,946
among which: private hospitals (accredited institutes)	3,294	3,277	3,291	3,429	3,642
Total hospital public expenditure	39,104	40,825	42,570	44,132	46,968
Other expenses	31,069	36,861	38,861	39,372	42,387
Total public health expenditure	70,173	77,686	81,431	83,504	89,355

(*) In the “Relazione Generale sulla situazione economica del Paese” dated 2005, chronological information on expense was updated

Source: data processing provided by Ermeneia on information available in the Report “Relazione Generale sulla situazione economica del Paese”, 2005, Vol. II; Italian Ministry of Health - Financial Statements of USL facilities

Table S/68 – Health expense at stable costs(*). Years 2000-2004 (in billion euros)

	2000	2001	2002	2003	2004
Public hospitals and hospital companies	27,049	27,829	28,312	28,530	29,609
Medical Institutions operating within the national health system	6,978	6,779	6,705	6,736	6,966
among which: private hospitals (accredited institutes)	2,866	2,778	2,707	2,740	2,836
Total hospital public expense	34,027	34,608	35,017	35,266	36,575
Other expenses	27,035	31,248	31,966	31,462	33,008
Total public health expense	61,061	65,857	66,984	66,729	69,583

(*) GDP deflator to 1995 costs

Source: data processing provided by Ermeneia on information available in the Report “Relazione Generale sulla situazione economica del Paese”, 2005, Vol. II; Italian Ministry of Health - Financial Statements of USL facilities

Table S/69 – Total health expense and public health expenditure compared to GDP

Values %	Total health expense			Public health expenditure		
	2001	2002	2003	2001	2002	2003
United States	13.6	14.4	14.7	6.1	6.5	6.6
Japan	7.6	7.6	-	6.1	6.2	-
Germany	10.5	10.6	10.8	8.1	8.3	8.4
France	9.2	9.5	9.9	7.0	7.1	7.5
Italy	7.8	8.0	8.0	6.1	6.2	6.2
United Kingdom	7.6	-	-	6.2	-	-
Canada	9.0	9.2	9.4	6.3	6.4	6.5
Average of G7 countries(*)	9.3	9.9	10.6	6.6	6.8	7.0
Australia	8.7			5.8		
Austria	6.9	7.0	7.1	4.9	5.0	5.1
Belgium	8.5	8.7	9.1	6.4	6.4	6.8
Denmark	8.4	8.6	8.8	6.9	7.1	7.3
Finland	6.7	7.0	7.2	5.0	5.2	5.5
Greece	9.7	9.3	9.4	5.4	4.9	5.0
Iceland	9.2	9.8	10.3	7.5	8.2	8.6
Ireland	6.2	6.5	6.7	4.9	5.2	5.3
Luxemburg	6.5	7.1	6.7	5.7	6.4	6.0
The Netherlands	8.3	8.8	9.3	5.4	5.8	6.1
New Zealand	8.1	-	-	6.2	-	-
Norway	8.2	9.2	9.5	6.8	7.7	7.9
Portugal	9.2	9.2	9.5	6.4	6.4	6.6
Spain	7.3	7.3	7.4	5.2	5.2	5.3
Sweden	8.4	8.8	9.0	7.2	7.5	7.7
Switzerland	10.6	10.8	11.3	5.9	6.1	6.5
Turkey	7.2	7.0	7.3	4.8	4.9	5.1
Average of the European OECD countries ⁽¹⁾	8.2	8.5	8.7	6.1	6.3	6.5
OECD countries total average(*)	8.5	8.8	9.1	6.1	6.3	6.5

(*) Average values have been calculated by an arithmetic mean and not by a weighted mean

Source: data processing provided by Ermeneia based on data available in "OECD Health Data 2005", OECD, Paris, October 2005

Table S/70 – Public and accredited hospital expenses in relation to the total public health expenditure and GDP

Values %	Public and accredited hospital expense / total public health expenditure			Public and accredited hospital expense / GDP		
	2001	2002	2003	2001	2002	2003
U.S.A.	37.6	37.1	36.2	2.3	2.4	2.4
Japan	44.2	45.0	-	2.7	2.8	-
Germany	38.7	38.5	38.1	3.2	3.2	3.2
France	52.3	52.0	51.7	3.6	3.7	3.9
Italy	53.2	53.5	54.1	3.2	3.3	3.3
United Kingdom	-	-	-	-	-	-
Canada	38.1	37.7	37.6	2.4	2.4	2.5
Average of the G7 countries ^(*)	44.0	44.0	43.5	2.9	3.0	3.1
Australia	46.1	-	-	2.7	-	-
Austria	45.2	45.2	43.9	2.2	2.3	2.2
Belgium	-	-	-	-	-	-
Denmark	61.2	59.9	59.0	4.2	4.3	4.3
Finland	50.4	50.3	50.1	2.5	2.6	2.7
Greece	-	-	-	-	-	-
Iceland	67.6	68.5	69.0	5.1	5.6	5.9
Ireland	-	-	-	-	-	-
Luxemburg	34.1	39.9	40.4	1.9	2.5	2.4
The Netherlands	50.1	50.6	50.0	2.7	2.9	3.1
New Zealand	-	-	-	-	-	-
Norway	55.3	54.8	55.3	3.8	4.2	4.4
Portugal	-	-	-	-	-	-
Spain	35.1	34.3	34.3	1.8	1.8	1.8
Sweden	38.2	36.9	38.4	2.7	2.8	3.0
Switzerland	52.0	52.3	52.4	3.1	3.2	3.4
Turkey	-	-	-	-	-	-
Average of the European OECD countries ^(*)	48.7	49.0	49.0	3.1	3.3	3.4
OECD countries total average ^(*)	47.0	47.3	47.4	2.9	3.1	3.2

(*) Average values have been calculated by an arithmetic mean and not by a weighted mean

Source: data processing provided by Ermeneia based on data available in "OECD Health Data 2005", Oecd, Paris, October 2005

1. *The applied method*

The Annual Report on Italian Families & Hospitalisation has again been compiled following four main routes.

Firstly, the most relevant issues have been identified and described in Part I. To this purpose, “objective” data on the development of the hospital system as a whole have been collected together with data specifically referring to the accredited private sector. Similarly, “subjective” data arising from surveys carried out among Italian families have been collected.

The method consisted in carrying out a dedicated standard analysis on the relationship between Italian families and the hospital system. A questionnaire was submitted to a representative sample of the Italian adult population of 18 years of age and over.

The questionnaire was designed as follows:

- several questions asked in previous surveys were re-used to make a comparison with the results obtained in 2005 and to assess any differences on a yearly basis;
- specific questions which were different from previous surveys were added. Following a detailed discussion between a dedicated Focus Group and the commissioner, the questionnaire was structured as follows:
 - *Section 1 – Use of facilities.* This aims to verify the use of healthcare medical institutions (public, private accredited or private medical institutions) by the interviewees over the past twelve months, as well as localising the existing facilities within a specific geographical area, assessing the reasons behind the use and the additional costs met by the interviewees (family mobility, patient assistance, etc.);
 - *Section 2 – Evaluation of hospital service.* This aims to collect the opinions of the interviewees who have used a hospital (public, private accredited or private institutions) over the past twelve months, with regard to services received as a whole, and also to evaluate specific aspects as well as the level of customer loyalty that the interviewees express by choosing the same hospital again;

- *Section 3 – Evaluation of public/private options.* This aims to collect the opinions of the interviewees who have actually used a hospital over the past twelve months, with regard to their awareness of the possibility of choosing private accredited medical institutions as an alternative to public hospitals. It also aims to evaluate the pros and cons of these options, the reasons why citizens have chosen public institutions and the issues behind the possible alternatives available to them when choosing a public hospital instead of a private one, if costs were the same and they were aware of such an option;
- *Section 4 – The opinion on the development of a mixed hospital system.* This aims to compare the opinion of the general public, regardless of their use of hospitals over the past twelve months, in light of an emerging mixed hospital system which integrates public and private sectors. This section has also explored citizens' "consistency" with previous choices when choosing the kind of hospital in the future and their willingness to travel in order to receive the best healthcare assistance. Finally, the Section has focused on citizens' willingness to pay any additional costs for having the realistic option of choosing between public and private hospitals, as well as on interviewees' opinions on alternative public policies that support such choice.

Questionnaires were distributed to a sample of 4,011 adults by using a telematic panel installed in the personal computers of 2,000 Italian families and connected to a central processor. The sample was classified according to parameters such as family (number of members, size of the town of residence and geographic area) and to more specific parameters such as sex, age, education, occupation and residence in the 4 main geographical divisions as well as in various municipalities.

This sample is updated on a yearly basis to compensate for the lack of collaboration with interviewees, to guarantee the constant existence of structural variables and to monitor interviewees' habit-forming attitudes (this update concerns almost 15% of the total sample yearly).

The final results of the survey have been provided in order to reveal an ideal sample of the Italian adult population aged 18 and over. Consequently, in the following table the three columns for the three years of reference (2003, 2004 and 2005) have been designed according to the same parent population.

The 2005 survey was carried out in mid-September 2005 and the results show an error margin corresponding to $\pm 1.55\%$, with a confidence interval of 95%.

The collected data were then processed on the basis of simple distributions, thus providing information for the base tables included in Part II of the

Report. Subsequently, appropriate cross evaluations were made according to three different groups of parameters, as follows:

- a first group included the following variables: sex, age, geographic distribution and size of the municipality of residence;
- a second group included the following variables: occupation, education and socio-economic level stated by the interviewees;
- a third group included three kinds of variables: citizens' awareness of the possibility of using both public and private accredited hospitals, medical institutions previously used (public hospital, accredited private hospital or private hospitals) and finally the satisfaction level with Italian hospitals.

The tables resulting from the above-mentioned cross-evaluations have been included in the Detailed Statistic Enclosure and are referred to throughout the Report in order to accurately analyse the various attitudes, opinions, behaviours of the different samples. The profile of the interviewees is hereby provided (from table A/1 to A/8) and includes basic social and personal characteristics of the sample, valid for the 2003, 2004 and 2005 surveys.

Then the third method was established: the review over twelve months on hospital-related issues in the press (described in Part IV of the Report).

Finally, the fourth method applied for compiling the Report was the set-up of structural indicators on the basis of available data (updated with the most recent ones from the medical institutions members of Aiop) which are provided in Part IV of the Report.

Table A/1 – Gender of the interviewees (% val.)

Gender	2005	2004	2003
– Male	47.8	47.8	47.9
– Female	52.2	52.2	52.1
a.v.	100.0	100.0	100.0
Total	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/2 – Size of the municipality of residence of the interviewees (% val.)

	2005	2004	2003
– Up to 20 thousand inhabitants	47.8	47.8	47.4
– 20-100 thousand inhabitants	28.4	28.4	27.0
– Over 100 thousand inhabitants	23.8	23.8	25.6
Total	100.0	100.0	100.0
a.v.	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/3 – Geographic area of residence of the interviewees (% val.)

Area	2005	2004	2003
– North-West	26.9	26.9	27.0
– North-East	19.1	19.1	18.9
– Centre	17.6	18.2	18.2
– South and Islands	36.4	35.8	35.9
Total	100.0	100.0	100.0
a.v.	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/4 – Education of the interviewees (% val.)

Education	2005	2004	2003
– No education/Primary school degree	28.0	28.0	33.5
– Secondary school degree	36.3	36.3	36.1
– High school diploma/University degree	35.7	35.7	30.4
Total	100.0	100.0	100.0
a.v.	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/5 – Age range of the interviewees (% val.)

Age	2005	2004	2003
– From 18 to 24 years	9.9	9.9	11.6
– From 25 to 34 years	18.6	18.6	19.9
– From 35 to 54 years	34.5	34.5	32.8
– 55 years and over	37.0	37.0	35.7
Total	100.0	100.0	100.0
a.v.	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/6 – Occupation of the interviewees (% val.)

Occupation	2005	2004	2003
– Self-employed	12.6	12.6	11.1
– Employee	33.8	33.8	28.7
– Housewife/Retired person	38.7	38.6	42.3
– In search of occupation	6.1	-	-
– Other	8.8	15.0	17.9
Total	100.0	100.0	100.0
a.v.	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/7 – Socio-economic level of the interviewees (% val.)

Level	2005	2004	2003
– Low/Medium-low	44.8	39.4	38.2
– Medium	20.3	25.5	24.2
– Medium-high/High	34.9	35.1	37.6
Total	100.0	100.0	100.0
a.v.	4,011	4,350	4,440

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

Table A/8 – Family role of the interviewees – 2005 (% val.)

Role	%
– Head of the household	40.6
– Other member of the household	59.4
Total	100.0
a.v.	4,011

Source: Survey by Ermeneia – Studi & Strategie di Sistema, 2005

2. *The complete list of contents of the Report*

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