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1. Introduction

As all EU countries, Portugal is facing increasing difficulties in financing health care. Although these are not new, technological change and demand for more sophisticated care from the population put stronger pressure upon private and public budgets making evident the impossibility of universal access to all types of care. So, though not explicitly assumed, rationing (in the sense of priority setting) guided much political action and was often referred to in the media.

The recognition of this did not steer analysts of the Portuguese NHS to study the phenomenon probably because rationing policies were generally confounded with cost containment, which is not entirely exact. In fact, equity concerns play an important role in priority setting and, especially when it comes to implicit rationing, decisions generally aim at other objectives than just increasing resource savings, depending, *inter allia*, on the organisational structure of the health care system and/or the working regime of health professionals.

In what follows, we try to analyse health care rationing in Portugal in the 90s. In order to put it into perspective, a general overview of the demographic and macroeconomic evolution is provided, followed by a description of the main characteristics of the Portuguese Health Care System. Only after this we discuss both the explicit and implicit rationing policies that could be identified.

2. Portugal over the 90s

Portugal went through remarkable social changes in the last decade. Infant mortality dropped by half and life expectancy at birth increased in one and a half years. Despite a negative rate in 1993, the economy grew at an annual average rate of 2.58% and real wages increased which, combined with a low unemployment rate, led to a significant improvement in living conditions. On the other hand, total expenditure in health care grew faster than GDP allowing for reaching a ratio close to the EU average by the end of the period; also, the public share in total spending increased, although remaining far from other European countries.

However, in 2000, most of the problems that were diagnosed at the beginning of the decade to the Portuguese Health Care System remained unsolved. It can be said that inefficiencies persisted, resources were allocated inequitably and both public and private provision of care were below commonly accepted quality standards, in spite of some efforts (at the legislative level) to correct these shortcomings.

2.1 Demographic Evolution

According to available data[1], the number of residents in Portugal grew around 1.2% during the last decade, implying a final total of 9 997 590, of which 51.85% were women. A new census conducted in 2001 pointed to a

Table 1: Population structure

	1990	1993	1996	1999
Total resident population	9 898 590	9 892 160	9 934 110	9 997 590
Average annual growth rate (%)	—	0.23	0.14	0.18
Aging index (% pop. over 65/ pop. below 14)	68.1	77.1	86.1	91.6
Life expectancy at birth, males	70.2	70.8	71.3	71.7
Life expectancy at birth, females	77.3	78.0	78.6	78.9

Source: NBS 1990-1999 — Health statistics and OECD 2001 — Health data.

[1] All data reported in this point and in point 2.3 were collected from the 1990-1999 annual health statistics published by the National Bureau of Statistics (NBS), unless otherwise stated.

total of 10 355 824. Since figures don't match and retrospectively corrected data are not yet available, we opt to consider the series up to 1999.

As indicated in *table 1*, the most relevant changes concern the age pyramid. In fact, considering the aging index as an indicator of the pyramid's structure, it increased sharply from 34.6% to 91.6% during the decade. This deterioration resulted from a decrease in the fertility rate and an increase in life expectancy, despite a significant decrease of 48.6% in infant mortality, as shown in *table 2*.

Table 2: Fertility and mortality rates

(‰)

	1990	1993	1996	1999
Fertility rate	1.57	1.52	1.43	1.48
Mortality rate, all causes	10.4	10.7	10.8	10.8
Infant mortality rate	10.9	8.6	6.9	5.6
Perinatal mortality rate	12.4	10.1	8.4	6.4

Source: NBS 1990-1999 — Health statistics and OECD 2001 — Health data

At the beginning of the decade, the fertility rate in Portugal was already 0.53‰ below the 2.1‰ needed for generation substitution; it attained its lowest value (1.4‰) in 1995 and rose to 1.48‰ in 1999. Life expectancy at birth, both for women and men, grew constantly over the decade, at an annual average rate of 0.23% and 0.24%, respectively.

The 48.4% decrease in perinatal mortality was the most important explaining factor of the evolution in infant mortality. It was due, most probably, to the growth in the share of assisted births, which reached 99.1% in 1999.

Overall mortality increased from 10.4 per thousand inhabitants in 1990 to 10.8 in 1999, having the share of deaths of people aged over 65 in total mortality reached a peek of 79% in 1999. Cardiovascular diseases were the main cause of mortality but the weight of deaths from traffic accidents was the highest in Europe, being the main responsible for the mortality of indi-

Table 3: Main causes of mortality

(%)

	1990	1993	1996	1999
Cardiovascular diseases	44.2	43.7	41.3	38.8
Tumours	18.0	18.2	19.4	19.3
Respiratory illnesses	7.2	7.4	8.0	5.4
AIDS	0.1	0.4	1.0	0.8
External causes of death	6.5	5.7	5.3	4.6

Source: DGS MS, in Barreto (2000); NBS Annual reports — Health statistics 1998-1999.

viduals aged between 15 and 29. Both respiratory illnesses and AIDS grew in importance, especially the latter by increasing its share in 800%.

2.2 Macroeconomic Framework

Portugal experienced a significant improvement in all major macroeconomic indicators during the 90s as shown in *table 4*. According to the Bank of Portugal (BoP)[2] annual reports, gross domestic product (GDP) grew at an average annual rate of 2.58% and the consumer price index reached a low 2.9% in 2000 (2.8 using the harmonised consumer price index). On average, wages rose by 2.8% in real terms in the same period, while productivity per hour grew by 1.45% and real interest rates decreased substantially. Overall, the Portuguese economy performed well and, by January 1998, it had attained the preset goals. These were nominal stabilisation and fulfilment of the Convergence Pact agreed with the EU. Commission required to become a member of the Euro zone.

Several facts help to explain this evolution. First, major institutional changes were introduced between 1990 and 1993. In 1991, Portugal aban-

Table 4: Main macroeconomic indicators

	1990	1993	1996	1999	2000
Macroeconomic indicators					
GDP per capita (Euro, current prices)	4 923	6 938	8 271	10 869	11 253
GDP annual growth rate	4.1	– 1.2	3.6	3.4	3.2
Inflation rate	13.4	6.5	3.1	2.3	2.9
Interest Rate*	21.8	15.7	11.0	5.1	6.4
General government deficit (% of GNP)	5.5	6.4	3.3	2.1	1.7
Net transfers from EU (% of GDP)	1.2	3.3	3	2.7	1.7
Labour market					
Nominal wages growth rate	17.6	8.0	6.2	5.2	5.6
Real wages growth rate**	4.9	0.8	2.4	2.7	2.4
Productivity per hour	2.4	1.2	3.4	2.7	2.2
Unemployment rate	4.7	5.5	7.3	4.4	4.0

Source: Bank of Portugal — Annual reports 1990-2000.

* Loans and other credits 91-180 days.

** Using consumers price deflator.

[2] All data presented in this section were collected from the 1990-2001 annual reports published by the Bank of Portugal, unless otherwise stated.

doned the crawling-peg and restricted the size of the public sector. In the next year, Portugal joined the European Monetary System and, in 1993, the European Single Market came into place, implying full mobility of all production factors. The stability of exchange rates, as a means to attain price stability, became the main monetary policy goal.

Second, during these three years, the world economy witnessed a period of economic slow down/recession and, by the beginning of 1993, Portugal was plainly feeling its effects. GDP at constant prices decreased by 1%; internal demand suffered its first decrease in ten years; and investment decreased by 5.5% in real terms, as a response to excess capacity and low expectations. Curiously, inflation kept its downward track throughout the decade regardless of economic cycles, partly due to lower prices of imported consumption goods. On the other hand, as expected in times of recession, unemployment went up reaching 5.5% in 1993, while the real wages growth rate decreased by 0.5% in the same year, reflecting the relative easiness of adjustment of the Portuguese labour market, in terms of both volume and prices.

From 1994 onwards, the Portuguese economy expanded. GDP grew, pushed first by exports and subsequently by investment and private consumption; the general government deficit, which had grown during the recession years, diminished; the unemployment rate decreased; the wages' growth rate increased; and interest rates decreased substantially, especially after 1997.

By 2000, economic agents had internalised the prospects of a brighter future, and Portugal succeeded to be one of the founding members of the European Monetary Union. Moreover, economic agents saw the substantial decreases in interest rates as an irreversible trend and responded accordingly. As a result, the ratio of indebtedness to disposable income, which was less than 20% in 1990, had reached 88.4% by the end of the decade. If, on one hand, this allowed the population to accede to durable consumption goods thus improving their quality of life, on the other hand it had become, by 1999, the major concern of economic authorities given the pressure it put on inflation.

2.3 The Health Care System Throughout the 90s

2.3.1 Health care expenditure

Apparently, health care expenditure growth was immune to economic cycles. In fact, the share of total spending in GDP increased steadily throughout the decade, reaching 7.7% in 1998 (*table 5*). Also, per capita health expenditure (measured in USD purchasing power parities) doubled, although

this was not enough to rank Portugal any higher than «third lowest» among EU countries. This led politicians to defend, in 1999, a substantial increase in public expenditure contrary to the opinion of the majority of Portuguese health economists who sustained that the level of expenditure (not its allocation) was adequate (Pereira, Campos et al., 1997). The main argument was that there was a widespread waste of resources and complacency with systematic loose budgets (especially in hospitals), which should be corrected through effective investment planning, adequate incentives to professionals and increased accountability of managers.

Table 5: Health care expenditure, % GDP

	1990	1993	1996	1998
Total health care expenditure	6.2	7.3	7.6	7.7
Current health care expenditure	6.1	7.1	7.4	7.5
Pharmaceuticals	1.6	1.9	2.1	2.1

Source: OECD 2001 — Health data.

The share of current expenditure in overall expenditure varied very little and, on average, accounted for 97.9 % of the health budget. The percentage of total health expenditure (THE) devoted to in-patient care grew from 32.3% in 1990 to 36.2% in 1995[3], 97.7 of which was assigned to acute care. This increase occurred despite the reduction in average length of stay (see *table 10*) and the decrease of 1.6% in the total number of beds.

An important characteristic of the structure of expenditure in Portugal is the high (and increasing) weight of pharmaceuticals, which is explained, mainly, by cultural reasons both on the supply and demand sides, leading to widespread over prescribing. However, being private spending in pharmaceuticals quite substantial (the average reimbursement rate was 68.3% in 2000 — INFARMED, 2000), excess demand may also occur due to payers being allowed by the tax law to deduct private expenditure in health care in taxable income.

2.3.2 Financing sources

The Portuguese system is based on a National Health Service financed mainly through general taxation. In 1990, according to Van Doorslaer *et al.*

[3] Last year available.

(1999), taxes financed 55% of total health care expenditure, which if added to 6.2% financed through social insurance, totals the 61.2% arising from public sources. Coming the remaining 38.8% from private sources, Portugal shows the highest ratio of private financing of health care in the EU and one of the highest amongst OECD countries (Pereira 1993).

Although not comparable to Van Doorslaer's data, OECD/CREDES «Éco-Santé — 2001» shows that the proportion of public funding had raised to 67.1 in 1997, presumably implying a more equalitarian distribution in the financing of health care. Amongst private sources, private insurance grew in importance while the share of direct (out-of-pocket) payments decreased by 1.6%, as can be depicted from *table 6*.

Table 6: Health care financing sources, % of total expenditure

	1990	1993	1996	1997
Total Public	65.9	63	66.7	67.1
Total Private, of which	34.5	37	33.3	32.9
Insurance	0.8	1.3	1.5	1.7
Out-of-Pocket	33.7	35.7	31.8	31.2

Source: OECD-CREDES «Éco-Santé, 2001».

However, this is misleading of the real importance of insurance in risk coverage because private insurance in Portugal is merely complementary to NHS coverage. On the other hand, occupational based insurance schemes (the so-called «sub-systems»), which were originally intended to be integrated in the NHS, generate double or even triple[4] coverage of risks to the 25% of the population enroled (Pinto and Oliveira, 2001). Moreover, sub-systems' beneficiaries are allowed to choose providers while, in the NHS, population covered are assigned to a family doctor and have access only to NHS or NHS contracted (the *«sector convencionado»*) services. The result is a duplication of resources and an undermining of the principle of «equal access to those in equal need» on which the NHS is based.

2.3.3 The public/private mix

Health care establishments are divided into two main categories, hospitals and health centres, each of which can be publicly or privately owned. On the

[4] Triple coverage results from the fact that most sub-systems cover the entire families of the enrolled, who may be already entitled to other coverage schemes.

other hand, private establishments can either be for profit or not-for-profit. In practice, 60% of all hospitals (corresponding to more than 75% of beds) and more than 95% of health centres are publicly owned while the private sector, mainly located in urban areas and thus reinforcing the already existing inequities in the distribution of public resources, takes the lead in some services such as specialist visits, elective surgery and diagnostic tests, in which public facilities have significant waiting lists (Pereira and Pinto, 1993).

During the 90s, there was a reduction in the number of hospitals (since some very small ones were reclassified as health centres) but compensated by an increase in the total number of hospital beds, which accompanied population growth and allowed for the number of inhabitants per hospital bed to be kept approximately constant at 240. The reduction in the number of hospitals occurred despite the continued program of hospital construction over the decade (Pereira *et al*, 1997). The number of primary care establishments increased by less than 4% but this was accompanied by a more intense use of primary care services, as shown in *table 9*.

Table 7: Public/private shares in the hospital sector

(%)

	NUMBER OF HOSPITALS		HOSPITAL BEDS		NUMBER OF EMERGENCY UNITS		INPATIENT DAYS	
	1990	1999	1990	1 999	1990	1998	1990	1998
Public hospitals*	60.0	56.6	78.8	76.5	70.3	69.2	78.0	78.1
For-profit hospitals	15.5	19.9	4.1	6.9	16.5	20.2	22.0	21.9
Not-for-profit hospitals	24.5	23.5	17.1	16.6	13.2	10.4		

Source: NBS 1990-1999 — Health statistics.

*Includes NHS hospitals and others like military and police force hospitals.

2.3.4 Human resources

Human resources play a key role in health systems and many of the bottlenecks in the NHS are associated with them. In this respect, the perennial shortage of nurses and an extremely uneven distribution of physicians were the most striking facts characterising the Portuguese NHS in the last decade. But it was (and still is) the working status of personnel and their remuneration system that generate severe problems.

Almost all doctors work in the public sector but as Pereira and Pinto (1993) put it «doctors may practice both in the public and private sectors, patients being attracted to the latter due to the significant waiting lists to

specialist visits and surgical interventions in the former». Moreover, physicians are paid in the NHS on a salary basis earning less than half of their counterparts in the EU, while prices in the private sector are 50% higher than the average of similar services in the EU (OECD, 1998). As a consequence, most physicians choose to work both in the public and private sectors and have weak incentives to develop a high level of effort while working in the former.

Table 8 presents the evolution of human resources during the decade. It is perceived that the overall number of inhabitants per physician was at an acceptable level in 1990 and 1999, showing a ratio of 315 residents per doctor in the latter year. There is nevertheless a strongly asymmetric distribution of physicians within the country as the Alentejo region had 2.8 times more inhabitants per GP and 3.3 times more inhabitants per specialist than the Lisbon and Tagus Valley region.

Table 8: Human resources in the health care sector

	1990	1993	1996	1999
Inhabitants per physician	352	344	332	315
GPs in total number of physicians (%)	70	49	36	35
Specialists in total number of physicians (%)	30	51	64	65
Inhabitants per dentist	14 615	10 167	6 010	3 736
Inhabitants per pharmacist	1 820	1 649	1 465	1 282
Nurses per physician	1.07	1.11	1.18	1.24

Source: NBS 1990-1999 — Health data and DGS MS.

On the other hand, the number of nurses per physician is still far behind the European average, though it improved during the 90s.

The Constitution stipulates that the Portuguese health care system should be based on a NHS guaranteeing universal coverage and provision of all kinds of care, being access «nearly free» at the point of use[5]. In practice, such has not been the case and dental care is just one example. Public services provide almost no dental care to the population and there is a clear under utilisation of such care since most people cannot afford proper private dental care. The number of inhabitants per dentist reflects this situation.

[5] There is no expression in English equivalent to the one in the Constitution. The latter says that access to care should be «tendencialmente gratuito» which, literally translated, means «*tendencially* free of charge». We opted to use «nearly free of charge».

2.3.5 Utilisation

Values of main utilisation indicators are presented in *table 9*.

Table 9: Health care utilisation indicators

	1990	1993	1996	1998
Total Discharges	674 403	869 760	856 295	924 399
Average Length of Stay	10.8	9.9	9.8	9.0
Admissions per 1000 population	108	114	114	120
Emergencies	9 270 692	9 808 948	11 702 898	12 508 606
Non-emergency consultations, of which	33 216 802	36 572 720	38 652 482	39 221 066
In primary care units (%)	78	72	70	74

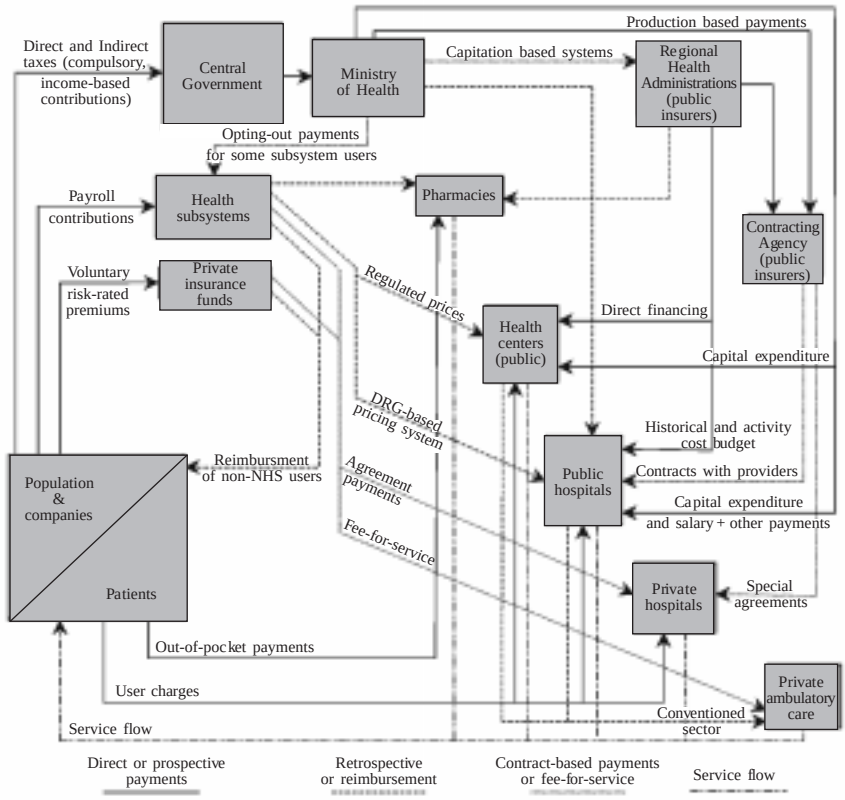
Source: OECD 2001 — Health data, NBS 1990-1999 — health data.

Overall, these indicators point to an increase in resource use during the decade. Total discharges grew by 37% in eight years; average length of stay in hospitals decreased by 1.8 days despite the number of hospital beds per capita and the occupancy rate were kept constant; and total number of consultations increased by 51.5%, the most significant part of it resulting from emergencies. There are several reasons for the modest increase in primary care consumption the most important being (Pereira *et al*, 1997) the relative decline in the number of GPs and public health doctors (when compared to the number of young doctors admitted to hospital training) and the fact that patients preferred to use services in the private sector or emergency care in hospitals not only because it was very difficult to schedule an appointment with the family doctor for the same day, but also because in most of these units there was no equipment to make diagnostic tests.

2.3.6 Organisation of the Portuguese Health Care System

As can be deduced from above, the Portuguese system never conformed to the NHS paradigm as, theoretically, it should, according to the NHS Law of 1979. In fact, legacies from the past such as the occupational based insurance schemes (the «sub-systems») were never integrated in the NHS. On the contrary, the system has, since then, been slowly evolving towards a more market oriented approach, most recent changes pointing to a purchaser-provider split and opting-out agreements. The flow chart presented in *figure 1* reflects precisely this.

Fig. 1: The Portuguese Health Care System



Sources: Pinto and Oliveira (2001); EOHCS (1999).

2.3.7 Main policies proposed for the reform of the Portuguese Health Care System

The beginning of the 90s was a time of vivid political debate on the need for reform of the Portuguese System. As a consequence, quite some legislation was passed in order to set the grounds for those reforms, although with scarce impact on the system's performance. As in most European countries, the proposed reforms were characterised by an emphasis on a «market» approach, suggesting competition among providers through the clarification of the purchaser-provider split, the change in the legal status of public providers, the promotion and development of the private sector, and the acceptance of the principle of cost-sharing in care provided by the NHS.

In the subsequent analysis, the decade will be divided into two periods coinciding with the political cycle — 1990-1995 and 1996-2000. During the first period the main legislative changes were issued in the Health Basis Law (1990) and in the NHS Statute (1993)[6]. Main policies approved in this period included:

- Full deduction of private health care expenditure in taxable income (Pereira, Campos *et al*, 1999).
- Opting-out policy, by offering incentives to move from public coverage to private insurance, under the payment of a premium to health insurers (Diário da República, 1993).
- New Medical Law (Diário da República, 1993), allowing full-time salaried doctors to engage in private practice (merely legitimating current practice) and establishing a premium salary to those who choose to work solely in the public sector.
- Possibility, under conditions, of private medical practice in public hospitals (Health Basis Law).
- Introduction of user charges in NHS services with exceptions for very low income families and chronic patients (Health Basis Law)
- Creation of five Regional Health Authorities (RHAs) in Mainland Portugal responsible for planning, allocation of funds, human resources management, provision of technical and administrative support to health units, and superintendence of hospitals and health care centres (Diário da República, 1993). This was intended to increase coordination among hospitals and health centres.
- Reimbursement of drugs prescribed by doctors in their private offices provided they worked also for the NHS (Pereira, Campos *et al*, 1997).
- Possibility of public hospitals being run by private companies (Health Basis Law). The first (and, so far, the only) hospital with this statute opened in 1994.

In spite of these major legislative reforms, their implementation was scarce and the impact fell far behind expectations. The first opting-out agreement was signed only in 1997; the degree of coordination between hospitals

[6] In Portugal, «Basis Laws» are, hierarchically, the second in rank after the Constitution. They must be approved by the absolute majority of members of Parliament and stipulate the general framework of rights and duties of all agents involved in a sector where the government has a decisive influence as a provider. There are «Basis Laws» for Defence, Education, Health and Social Security, namely. «Statutes» refer to public sector provision of goods and services and regulate the functioning of public organisations, such as the NHS.

and health centres actually decreased since the responsibility for health centres co-ordination and financing was indeed transferred to RHAs but the MoH retained the key tasks of strategic management and financing of hospitals; and the imposition of user charges did not appear to have had a relevant effect on over utilization of emergency services.

The Socialist party took office in October 1995 inaugurating a new cycle. It aimed at tackling with the structural problems of the Portuguese system. First, the government took some policy measures aiming at separating public and private provision of care. In particular, physicians working in public hospitals were prohibited of owning diagnostic tests' facilities and a card was issued to all users of NHS facilities aiming at, in particular, identifying beneficiaries from occupational based schemes as a means to oblige these schemes to pay for health care provided by the NHS and consumed by their enrolees (Diário da República, 1995).

On the other hand, specific policies were adopted to reduce pharmaceutical expenditure's growth rate. The most important were a new regulation concerning the pharmaceutical market, including the possibility of INFARMED requiring laboratories to present economic evaluation studies to base reimbursement decisions (Diário da República, Ministério da Saúde, 1998c); a diploma on generics (Diário da República, Ministério da Saúde, 1998b); and an agreement signed with the pharmaceutical association on a cap to the annual growth rate of drugs' sales.

Increase in productivity was another policy goal. Accordingly, an experimental remuneration system based on capitation was created designed to increase GPs financial incentives and professional satisfaction (Diário da República, Ministério da Saúde, 1998a) and a special program aiming at reducing waiting lists for surgeries was put forward leading to the contracting of surgical interventions in the public and private sectors (Diário da República, 1998).

Open-ended deduction of private expenditure in taxable income was abolished also. Expenses were capped and deducted to tax revenue.

Finally, there was put some emphasis on the purchaser-provider split, which would give the private sector a complementary role in the provision of care. This was to be attained through the introduction of an internal market model, designing a change from a public integrated model to a public contract model (Pinto and Oliveira, 2001). This orientation led to two new hospitals having a more flexible management structure with broad autonomy, namely on the purchase of goods and services and human resources management.

The results of these measures were short of expectations. In fact, overall public expenditure in health care kept growing at a rapid pace and inefficien-

cies were still abundant by the end of the period. Contrary to the objectives set, full-time doctors increasingly worked in both public and private sectors since funds allocated to incentives were short of needs and control of ownership of private firms was not very effective. Also, the NHS user's card was not very popular and the government had to postpone its universal use.

However, some policies had some success. According to the MoH, the rate of growth in pharmaceutical expenditure (drugs prescribed in ambulatory services only) did slow down in 1997 and 1998, although generics consumption growth was marginal. Also, waiting lists did diminish but less than expected.

As can be easily deduced from above, some of these policy measures (e.g., the ones aiming at controlling pharmaceutical expenditure) have explicit or implicit rationing objectives. However, rationing of care in Portugal has been a long lasting process not restricted to more recent policy measures. Next we analyse the most important policies that were designed to (explicitly or implicitly) establish priorities in the financing and/or delivery of health care.

3. Rationing policies

Being resources scarce, rationing is inevitable in any sector of activity. However, while in most sectors markets achieve equilibrium through the price mechanism, this doesn't work for most health care. Market failures impede prices to reflect marginal benefits and costs and make necessary the introduction of parallel mechanisms in order to match available resources to needs. Moreover, equity concerns generally interfere with strict efficiency goals demanding normative judgements to be adopted when choosing a specific allocation of resources. The political process has a decisive influence on this.

When the gap that exists in most health care markets is recognised not only by suppliers and demanders but also by third-party payers, rationing usually is explicit, in the sense that priorities in the distribution of care are assumed explicitly (the Oregon experiment is one example). In this case, the ranking of needs can be obtained by consensus or through majority voting.

Unfortunately, this is not the case in the vast majority of situations. Generally, although knowing that not all types of care can be provided to everybody, agents in the health system simply accept that providers (i.e., doctors) choose which care is to be consumed, when and by whom. In this case, rationing is implicit.

However, given the scarcity of financial resources and the rapid increase in health care costs, most governments had to put in place explicit rationing measures, though not seeming sufficient to bridge the gap in the market. So, the analysis of health systems reveals that «mixed» rationing (involving explicit and implicit priority setting) is the most frequent solution to balance resources and needs. This is what happens Portugal.

In what follows, rationing measures are analysed. As explicit policies are more easily identified, these are focussed first.

3.1 Explicit rationing

The first steps towards a more «market oriented» provision of health care were taken in Portugal in the early 90s. However, as mentioned, most of these reforms were based on voluntarism and were not put into practice or

didn't go beyond the experimental phase. As a result, rationing was never included in the political agenda.

This helps to explain why most explicit rationing policies undertaken in Portugal act at the macro or meso levels, entrusting physicians with the responsibility for (implicit) rationing measures at the micro level. Moreover, except for pharmaceuticals' reimbursement rates, which depend on the pharmacotherapeutic group of the drug, all explicit rationing measures are a consequence of other goals like cost containment. The main result is that access is often postponed far beyond clinically acceptable limits.

3.1.1 Supply side measures

3.1.1.1 Regulation of the pharmaceutical market

As in most European countries, the Portuguese government has for long regulated distribution, prices and reimbursement of medicines. However, since expenditure in pharmaceuticals in Portugal is quite high (higher than in the vast majority of EU countries — see *table 5* and OECD Health Data), it is not surprising that governments have been adopting increasingly restrictive specific measures, especially to diminish public spending growth.

In what concerns distribution, the law limits ownership of pharmacies to pharmacists and a license is required to open new establishments, being these issued and auctioned by INFARMED (the Portuguese regulatory agency for pharmaceuticals) according to pre-established ratios combining the number of inhabitants per establishment and the distance to an existing pharmacy. Moreover, all pharmaceuticals are sold exclusively in pharmacies.

The MoH also established limits on the quantities per package and a commission was recently appointed to work on the redefinition of package sizes according to therapeutical indication and average length of treatment (Diário da República, 2001). Moreover, the Ministry of the Economy sets drug prices and wholesalers and pharmacies margins are also regulated, both for prescription only and OTC products. Officially, prices of prescription only pharmaceuticals cannot exceed the lowest price of the same drug in Italy, Spain and France. On the other hand, wholesalers can't charge more than 8% and pharmacies more than 20% of the market price (Mota *et al*, 2000).

Reimbursed medicines are included in a positive list and reimbursement rates are fixed, differing according to the pharmacotherapeutic group of each drug. Until 2000, there were three reimbursement rates — 100%, 70% and

40%. Pensioners earning less than the minimum wage were awarded a 15% premium over the latter two rates.

To be included in the list, a drug has to have a marketing authorisation (issued by the INFARMED) and an approved maximum price (set by the Ministry of the Economy). If the laboratory claims that the pharmaceutical applying for reimbursement is a therapeutical innovation (i.e., a New Chemical Entity) and/or that it has a better cost-benefit ratio than equivalent drugs already in the market the INFARMED may ask the laboratory to provide an economic evaluation study to base its decision (Decree-Law 305/98). The study must comply with the approved methodological guidelines for building this type of studies (Silva *et al*, 1998), which means that a budget impact analysis must also be provided. Since the price approved by the Ministry of the Economy by comparison to the prices of the same product in reference countries is just a *maximum* price, the studies' results (cost-effectiveness ratios and budget impact results) are generally used by INFARMED to renegotiate the price (Decree-Law 205/2000). Just prescription only pharmaceuticals are reimbursed.

This Decree-Law (Diário da República, Ministério da Saúde, 2000) also introduced a fourth category with a reimbursement rate of 20% where new medicines with a doubtful cost-effectiveness advantage as well as drugs previously subject to higher rates of reimbursement but with unproven effectiveness were to be included[7]. It also restricted the prescription of certain drugs (e.g. antidepressants) to specialists and stipulated the conditions for drugs to be excluded from the list[8]. Finally, it stated that all reimbursed medicines should have its status reassessed every three years.

3.1.1.2 Immunisation

Only vaccines included in the National Vaccination Programme (e.g., measles; whooping cough; diphtheria; tuberculosis; and tetanus) are obligatory for some age or professional groups and provided free-of-charge. Those not included in the programme must be paid by patients at their full price, although administration is free in public health centres if prescribed by a doctor working for the NHS.

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[7] These pharmaceuticals remain in category D until results from a clinical trial provide information on its efficacy and/or an economic evaluation study proves its «value for money». If this does not occur, they are removed from the list.

[8] Decision on this is based on a comparison to similar drugs subject to reimbursement on the grounds of excessive cost, unproven effectiveness and/or practice of illegal promotion activities.

Minor changes in the NVP occurred between 1990 and 1998. However, in 1999 it was deeply revised being the main changes the introduction of vaccines against Hepatitis B, the addition of a new shot of Tetanus and Diphtheria for adults as well as the anticipation of the recommended age for some vaccinations and the reduction to a single subsequent tuberculosis booster (Direcção Geral de Saúde, 2001).

3.1.1.3 Heavy equipment planning

The law regulates the number of inhabitants per unit of some heavy equipment items. The first ratios were approved in 1988 and revised in 1995[9]. The law also gave the MoH complete control over new purchase of heavy equipment both in the public and private sectors. The MoH's permission to acquire new equipment was to be granted according to pre-established ratios of population per unit of equipment. However, the impact of the new legislation was reduced for a couple of reasons. First, the private sector not only installed equipment in the areas with the lowest needs (Pinto, M. *et al*, 2000; Pinto, C. and Oliveira, 2001) but also used its influence to have the law partially «suspended» by 1995, as shown in *table 10*.

Secondly, the public sector itself failed completely in assuring an even distribution of equipments across the country[10], inevitably generating excessive acquisition (Vaz, 1993). The main cause of this was that the MoH had no records on the number and distribution of equipment among health units.

As a result, the location of heavy equipment turned out to be related to the strong presence of private establishments in specific areas of the country. In an attempt to correct the situation and better plan for the future, the MoH published a complete list of health equipment existing in 1998 including a detailed specification on the distribution of items and services throughout the country and some indicative population/equipment ratios to be followed (Ministério da Saúde, 1998). This list has shown that there are wide regional variations in the number and age of high technology equipment items and in its distribution between public and private units (Pinto and Oliveira, 2001). Moreover, equipment tends to be generally underused in public hospitals and probably overused in the private sector (Pereira and Pinto, 1993; Urbano, Bentes et al, 1993; Pereira, 1995).

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[9] The most relevant laws on heavy equipment in the health care sector are Decree-Laws 445/88 and 95/95 and Ministerial Resolution 61/95.

[10] Vaz (1993) offers a concrete example on this. In 1992, there were three magnetic resonance equipments in the «Centre» region. According to the established ratio, these would be enough to cover the whole country.

Table 10: Number of inhabitants per unit of heavy equipment.
Guidelines for approval of installation

	1988 LEGISLATION RATIOS	1995 LEGISLATION RATIOS	EXISTING SITUATION IN 1997
Computed tomography	250 000	—	80 000
Magnetic resonance imaging (MRI)	1 000 000	—	350 000
Digital angiography	500 000	—	330 000
Lithotripsy	3 000 000	—	800 000
Gamma cameras	250 000	250 000	300 000
Linear accelerators	1 000 000	—	600 000
Cobalt therapy	1 000 000	—	730 000
Radiotherapy	—	250 000	330 000
Cyclotron	3 000 000	—	—
Positron emission tomography (PET)	3 000 000	1 000 000	—
Gamma knife	—	5 000 000	—
Hemodialysis (posts per million inhabit.s)	45	—	209

Source: Pinto, M. *et al* (2000).
Note: Hyphens indicate that ratios were non-existent or withdrawn.

3.1.1.4 Human resources management

Main measures aiming at human resources management in the health care sector included the control of admissions to medical and nursing schools (through *numerus clasus*[11]) and to the civil service, having the latter to be approved by the Minister of Finance also. According to Pinto and Oliveira (2001), these measures seemed to be successful in attaining their implicit goals as, for example, salaries and over hour's compensations account only for 45% of NHS health care expenditure in Portugal (IGIF 2002) a much lower share than in the other EU countries.

3.1.2 Demand side policies

3.1.2.1 User charges

Except for pharmaceuticals and hearing and ocular protheses, all care provided by the NHS was free at point of use until 1981. This year, first user

[11] Governmental Decree 634-A published in Diário da República, 1ª Série 1977. In Portugal all medical schools and most nursing schools are public.

charges were set applying only to health centres' services and some diagnostic tests. It was only in 1992 that they were extended to hospital care aiming at correcting moral hazard through cost sharing. However, patients in some situations (namely chronic patients earning less than the minimum wage, pregnant women, children below 14 and pensioners) were exempted (Mateus, 1996).

It is difficult to assess the overall impact of charges. However, the European Observatory of Health Care Systems in its 1999 annual report (OPSS, 1999) argued that they did not appear to have had a relevant effect on the overuse of emergency services. In contrast, they most probably had a negative impact on equity, even if exceptions for low-income groups are accounted for (Pereira and Pinto, 1993). On the other hand, its importance as a financing source of NHS services was small since they were responsible for only 2% of all NHS revenues, in 1999 (IGIF, NHS Budget — 1999).

3.2 Implicit Rationing

Implicit priority setting is the widest used means of matching resources and needs. However, being these decisions generally justified on technical grounds, it is more difficult to assess rigorously whether they can be considered as rationing and quantify their impact.

3.2.1 Waiting lists[12]

Waiting lists have been adopted as a widespread means of implicit rationing in Portugal as in most European countries. Since, as mentioned, the vast majority of physicians work both in the public and private sectors, usually labouring during the morning in the former and in the afternoon in the latter, public facilities are underused in the afternoon. In an attempt to minimise this problem and attain a more efficient use of resources, the 1990 Health Basis Law (among other legislation) established the conditions under which private practice may be performed in public hospitals by allowing doctors to dedicate their «spare time» (i.e. the time they used to spend in their private offices) to receive private patients in the hospital.

[12] In what follows, waiting lists' data include only patients who have been waiting longer than what is considered clinically acceptable. The Portuguese Medical Association set the limits for «acceptable» waiting times for each type of surgery.

Simões and Pinto (1993) discussed the impact of this policy on waiting lists. The study was confined to a specific unit (kidney surgery) of a set of hospitals in the 1990-1992 period. They found a significant increase (of 35% in 1991 and 58% in 1992) in the waiting list of patients covered by the NHS after this change in doctor's working regime. Also, conclusions point to a fall in NHS production and to an increase in private production succeeding the latter to more than offset the first effect. Interesting enough, they argue that equity was not substantially affected. Although, to our best knowledge, it is the only study published on this issue, it is certain that private practice in public hospitals did not reduce NHS patients' waiting lists over the years (see *table 12* below).

Cabral and Barriga (1999) tried to identify the reasons for the existence of waiting lists in public hospitals. Although data were collected in hospitals serving a quite homogeneous population, they did not find a common factor, or a set of common factors, that could explain their growth. However, possible factors include the increase in technological intensity of treatments and variations in physicians' productivity, although the productivity of other health personnel was not studied.

In 1995, a Specific Program for the Reduction of Waiting Lists was set in place in order to reduce waiting times for some elective surgeries. No information is available on this program but, in 1999, the Socialist government drew up a similar program entitled Program for the Promotion of Access (PPA). The PPA, approved by the parliament[13], worked as follows: Each year, the NHS auctions lists of patients waiting for surgeries included in the programme (13 in total) to which public and private hospitals may apply. Payments are fixed on a fee-for-service basis, equal for all institutions. Each winning unit then issued a certain number of «titles» (corresponding to the number of interventions it applied to) where the date of the surgery is stated. In the case of surgeries performed in NHS facilities, they were supposed to occur at times when the operation rooms were not otherwise being used (weekdays in the afternoon and weekends) and personnel were allowed to add the extra-payment they got from these services to their salary income. Data available on the success of PPA is depicted in *table 11*.

These figures deserve some comments. First of all, the total number of patients waiting for intervention does not correspond to the figures on the first row of the table. In fact, the latter were collected only in hospitals adhering to the PPA and not in all hospitals. Moreover, not all elective sur-

[13] Law 27/99, Decree-Law 285/99, Ministerial Dispatches 5804/99 and 19138/99 and Governmental Decrees 787/99 and 818/99.

Table 11: Evolution of surgeries under the PPA

	1999	2000	2001
Total number of patients in the waiting lists	81 000[a]	73 300[b]	90 451[c]
Total number of contracted surgeries (titles issued)	*n.a.*	38 365	34 925
Total number of elective surgeries performed under the PPA	*n.a.*	17 108	23 791
Total number of surgeries performed outside the PPA	283 377	304 857	312 817

Source: Ministry of Health; Barros and Olivella 1999.

[a] In May.

[b] In April.

[c] In December.

geries were eligible to the PPA. So, not only the true magnitude of lists is still unknown[14] but also increases in the total number of people in waiting lists over the years may be simply due to an increase in the number participants in the PPA (Ministry of Health, 2002).

On the other hand, waiting lists are volatile since not all patients listed are actually eligible for surgery, which is reflected in titles returned. For example, in the North Regional Health Authority, one third of the 30,313 patients eliminated from the lists in 2001 were simply due to returned titles, including those who had died, underwent surgery outside the NHS or did not want to be operated anymore, while the other two thirds were found to be enrolled in more than one hospital for the same intervention.

Finally, there is no data on the number and type of hospitals participating in the programme and, consequently, there is no way of, even indirectly, estimating the approximate dimension of waiting lists.

Somewhat detailed data on the programme's performance is available only for 2001. As can be seen from *table 12*, hernias, cataracts and varixes accounted for more than 60% of all surgeries performed and total amount spent. These pathologies had also the longest waiting lists (accounting, on aggregate, for 45% of all patients enrolled) and the ones where the programme was more successful, with an execution rate of more than 30%. This is not surprising since criteria for the choice of the pathologies to be included and given priority in the PPA seems to have been only the size of their waiting lists.

However, longer waiting lists don't correspond to longer waiting times. Unfortunately, data for average waiting times are available only for the North

[14] A recent declaration from the Minister of Health points to a total over 123,000 patients (Diário de Notícias, 2002.07.26). This figure is not comparable to the ones in the text since it corresponds to 68 pathologies.

Table 12: PPA per pathology in 2001

	WAITING LIST (1)	SURGERIES PERFORMED (2)	(2)/(1) (%)
Hernia	16 959	5 337	31.4
Cataract	11 807	4 830	40.9
Varix	12 512	4 711	37.7
Buttock, knee and spinal column	12 897	3 481	27.0
Gall bladder	*n.a.*	2 046	*n.a.*
Ear and septoloplatis	16 122	1 752	10.9
Prostate	2 544	551	21.7
Miofybroma	1 313	188	14.3
Other	*n.a.*	568	*n.a.*
Total	90 907	23 464	25.8

Source: Ministry of Health, unpublished data.

region where the 6668 patients waiting for hernia surgery would expect a delay of 510 days for the intervention and the 5327 patients waiting for varix surgery had an average waiting time of 839 days.

Table 13: Execution of the Program for the Promotion of Access in 2001

	PPA BUDGET (EURO)	% SPENT	TITLES ISSUED	CONTRACTED SURGERIES	SURGERIES PERFORMED	PERFORM. RATE[a]
North RHA	14 814 297	84.5	17 756	11 463	9 318	81.3
Centre RHA	14 814 297	79.1	8 180	11 643	6 653	57.1
Lisbon and Tagus Valley RHA	14 814 297	63.8	6 866	8 150	5 988	73.5
Alentejo RHA	2 962 860	19	644	1 190	623	52.4
Algarve RHA	1 975 240	94.4	1 479	1 775	1 209	68.1
Mainland Portugal	49 380 992	73.1	34 925	33 031	23 791	69.6

Source: Ministry of Health, unpublished data.

[a] Ratio of performed surgeries/ contracted surgeries.

As can be seen from *table 13*, there were significant regional differences in terms both of the size of waiting lists and of performance rates. In 2001, the larger number of patients waiting for surgery (37% of total) lived in the North, followed by Lisbon and Tagus Valley with 33%, the Centre region, Alentejo and Algarve, with only 3%. However, this ranking does not fully coincide with regional distribution of physicians. In fact, although Alentejo had the highest ratio of inhabitants per doctor, it ranked second last in the ratio while the Lisbon and Tagus Valley region having the lowest ratio of

inhabitants per physician was the second in rank in the number of patients waiting for surgery.

Significant regional differences concerning performance rates can also be observed. While budget was allocated evenly between the three regions with the longest waiting lists, implicitly pointing to expected similar reductions in the number of patients waiting, only 57.1% of the surgeries contracted in the Centre region were performed (and the RHA spent 79.1% of its budget for that) while the performance rates in the North and Lisbon and Tagus Valley RHAs were much higher. In fact, except for Alentejo, all RHAs show a higher share of the budget spent than the corresponding performance rate.

As previously indicated, both public and private hospitals could apply for PPA funding. Scarce data available (OPSS, 2001) show that they responded differently to the programme. First, as expected, prices were higher in the private that in the public sector. One of the reasons for this was that, in some cases, private hospitals were contracted exclusively due to the need of enlarging supply.

On the other hand, the performance rate was higher in the public than in the private sector. In fact, in 2000, 19% of the total production was contracted with the private sector and only 21% of the corresponding surgeries were actually performed. However, in 2001 the private sector increased its share in contracted surgeries to 28%.

3.2.2 Triage of patients in emergency services

There is a widespread idea that too many resources are being used in emergency care (namely, in hospitals) as a result of an over utilisation of these services. Data available support this since emergency consultations grew 35% while the number of visits in the NHS increased only by 18% in the 90s (National Bureau of Statistics, «Health Statistics — 1999»). Main causes of this lay on the reduction in the number of GPs, the short daily period during which they work in Health Centres (not more than 4 hours, generally) and the lack of equipment (namely, for diagnosis tests) in primary care facilities.

To deal with this situation, the government set higher user charges for emergencies than for other consultations and, in 1999, triage of patients in the access to hospital emergencies was introduced, although in a reduced number of hospitals. Being based on the Manchester Protocol, the selection of patients is done upon arrival to the hospital by a doctor or an experienced nurse that assesses the seriousness of the situation. According to the diagno-

sis and prognosis, a card with one out of four different colours is given to the patient each colour indicating the urgency of the situation and the corresponding expected waiting time. This is explained to the patient since one of the main objectives of this mechanism is to discourage false emergencies. There is no assessment of the impact of these policies either on utilisation of services or, especially, on health of patients due to eventual wrong selection.

3.2.3 Dental care

As in all NHS-based Health Care Systems, there is a perennial shortage of dental care provision in public services in Portugal. In fact, in 1996, only 8% of visits to dentists where provided in the public sector (National Health Survey, 1996). This was due to the high cost of this type care and to scarcity in dentists. In fact, according to OECD 2001 Health Data, the number of dentists almost doubled between 1990 and 1998 but the number of inhabitants per dentist was still 3004 in 1998. This impeded, namely, access of the vast majority of the population (especially youngsters) to preventive consultations given the high prices dentists charge. It is thus not surprising that the 2001 UN report on Portugal, pointed to cavities as the main chronic illness amongst Portuguese youth.

3.2.4 Blood collection and distribution

There are not many official data on the actual shortage of blood in Portugal but this can be inferred from, for example, the Portuguese Blood Institute's web site[15]. There it can be read that the Institute's goal is to collect 350,000 units of blood per year, much more than the total achieved in 2000 — 110,201. So, it is not surprising that there is some anedoctical evidence on elective surgeries having been forgone or postponed due to lack of blood.

One of the possible reasons for this is that Portuguese blood policy relies on voluntary donors and donation must be free. Regular blood donors (at least twice a year) are, nevertheless, exempted from user charges when using NHS services. Shortage occurs despite the numerous campaigns promoted by the blood institute and the significant increases in number of donors (128.2%) and units collected (111.7%) between 1995 and 2000. Being phy-

[15] http://www.ipsangue.org

sicians responsible for the allocation of available blood and being this done casuistically, it corresponds to a typical situation of implicit rationing.

3.2.5 Organ transplants

There are quite a few laws regulating organ transplants in Portugal[16]. Institutions must be specifically licensed to carry out transplants and physicians are required to give full information to donors and recipients. Monetary compensation for the donation of organs and tissues (not to speak of buying and selling) is strictly forbidden. The Law tried to guarantee this by attributing to Lusotransplante (a national association working under the supervision of the Ministry of Health) the responsibility for keeping the waiting list for transplants updated and for the selection of the best donor-recipient pair (Ministerial Dispatch 5/91) controlling, in practice, all transplants.

As can be seen from *table 14*, there has been a wide gap between organs available and needs. Until 1994, it was attributed to the fact that the law required donors to explicitly authorise transplantations. In an attempt to overcome this, legislation was passed (Decree-Law 224/94) by which any resident in Portugal who did not enrol in a «no donor's list» was to be considered as a potential post-mortem donor (Pinto *et al*, 2000). Apparently, this had a small success but only in the short run, as can be deduced from the table.

Table 14: Transplants

	1990	1993	1996	2000
Transplants carried out/ Total demand for transplants (%)	n.a.	35	47	41
Waiting list for transplants at the end of the year	1118	1277	1224	1679

Source: Lusotransplante.

[16] For a full account see http://www.chsul.pt/legislacao.htm

4. Final Remarks

Overall, it appears that rationing policies in Portugal are similar to the ones in other European countries. Nevertheless, the working regime of doctors may be responsible for a bigger impact of implicit priority setting, reflected namely in longer waiting lists and larger shortage of dental care supply.

The new Social Democrat government that hold office earlier this year announced as one of its most important objectives to end with all waiting lists for elective surgery in two years. How ever doubtful as it is to fulfil this goal in scheduled time, it is certainly impossible without a major change in the Portuguese system, clarifying in particular the relations between public and private sectors, which is not in sight, at least in the near future. So, taking also into account past failures, it is most probable that action will fall short from the objective.

On the other hand, increases in access to care and supply of services will imply a substantial expenditure growth, especially if the demographic tendency persists. This is improbable due to the slow down in economic activity forecasted for the next two years and the budget restrictions imposed by monetary harmonisation in the EU.

References

Albuquerque, J. L. and T. Bomba (2001), «Pobreza e Condições de Vida em Portugal» in *Como Está a Economia Portuguesa? IV Conferência sobre a Economia Portuguesa,* CISEP, Lisbon.

Assembleia da República (1976). *Constituição da República Portuguesa*. Lisboa, Assembleia da República.

Assembleia da República (1992). *Constituição da República Portuguesa*. Lisboa, Assembleia da República.

Barreto, A. (2001), *A Situação social em Portugal, 1960-1999,* Instituto de Ciências Sociais da Universidade de Lisboa, Lisboa.

Barros, P. P. (1998), «The black box of health care expenditures growth». *Health Economics,* 7 (6): 533-544, 19.

Barros, P. P. and Ollivela (work in progress), *Managed health care: incentive theory and empirical evidence.*

Béresniak, A. and Duru, G. (1999), *Economia da Saúde* (1st Portuguese Edition) Lisboa: Climepsi Editores.

Cabral, J. and N. Barriga (1999) *Listas de espera hospitalares. Produtividade dos profissionais e contexto,* Working Paper 1/99, Associação Portuguesa de Economia da Saúde, Lisbon.

Carapinheiro, G. and M. G. Pinto «Políticas De Saúde Num País Em Mudança: Portugal Nos Anos 70 e 80». In *Sociologia — Problemas e Práticas,* 1987, (3), pp. 73-109.

DEPS, Ministério da Saúde (1997). *Inquérito Nacional de Saúde 1995/1996, continente, dados gerais*. Lisbon, Departamento de Estudos e Planeamento da Saúde, Ministério da Saúde.

Diário da República, Assembleia da República (1990). «Lei 48/90: lei de bases da saúde». Diário da República 195: 3452-3459.

Diário da República, Ministério da Saúde (1992) Decreto-Lei n.º 118/92.

Diário da República, Assembleia da República (1993). «Decreto-Lei n.º 10/93: Lei orgânica do Ministério da Saúde». Diário da República 12/93.

Diário da República, Ministério da Saúde (1993). «Decreto-Lei n.º 11/93: Aprovação do Estatuto do Serviço Nacional de Saúde». Diário da República 12/93:129-34.

Diário da República, Assembleia da República (1995). «Decreto-Lei n.º 198/95: Cria o cartão de identificação do utente do SNS». Diário da República, 7/95.

Diário da República, Assembleia da República (1998). «Lei n.º 23/98: Programa para a promoção do acesso». Diário da República, 5/98.

Diário da República, Ministério da Saúde (1998a). «Decreto-Lei n.º 117/98: Regime remuneratório experimental dos médicos da carreira de clínica geral que exerçam funções nos centros de saúde do Serviço Nacional de Saúde». Diário da República 103: 1991-1994.

Diário da República, Ministério da Saúde (1998b). «Decreto-Lei n.º 291/98: Incentivos à produção de genéricos». Diário da República 215: 4812-4813.

Diário da República, Ministério da Saúde (1998c). «Decreto-Lei n.º 305/98: Novo regime de comparticipação dos medicamentos». Diário da República 231: 5030-5032.

Diário da República, Ministério da Saúde (1999). «Despacho n.º 5804/99 (2.ª série): Programa de Promoção e Acesso». Diário da República 68/99: 4165-4166.

Diário da República, Ministério da Saúde (2000). «Decreto-Lei n.º 205/2000: Estabelece o regime de comparticipação do estado no preço dos medicamentos». Diário da República 202: 460511.

Diário da República, Ministério da Saúde (2001). «Portaria 1278: Determina a dimensão das embalagens de medicamentos susceptíveis de comparticipação pelo Estado». Diário da República.

Direcção-Geral de Saúde (1999), *Guia do Utente do Serviço Nacional de Saúde*, http://www.dgsaude.pt/guia_ut.html

Direcção-Geral de Saúde (2002), *Programa Nacional de Vacinação*, http://www.dgsaude.pt/profissionais/pnv_ot.html

Dixon, A. and Mossialos (2000). «Has the Portuguese NHS achieved its objectives of equity and efficiency?», *Internacional Social Security Review* 53 (4): 49-78.

Duarte, N. A. S. and M. C. N. Simões (2001), «Principais factores de Crescimento da Economia Portuguesa no Espaço Europeu» in *Como Está a Economia Portuguesa? IV Conferência sobre a Economia Portuguesa*, CISEP, Lisbon.

European Observatory for Health Care Systems. (EOHCS). (1999), *Health Care Systems in Transition — Portugal*, Copenhagen, EOHCS, European Observatory on Health Care Systems.

Gouveia, M. and A. M. Pereira, (1997), *Estratégias de Reforma do Estado Providência: Saúde e Pensões*, Fórum dos Administradores de Empresas edition, Lisbon.

IGIF, (Instituto de Gestão Informática e Financeira) — Departamento de Gestão Financeira (2002) «*Financiamento de Cuidados de Saúde Primários*», Lisbon.

INFARMED (National Agency for Pharmacy and Pharmaceuticals) (2000), *Estatística do Medicamento*, Ministério da Saúde, Lisbon.

Instituto Português do Sangue (2002), *Estatísticas do Instituto Português do Sangue*, http://www.ipsangue.org/html/body_estatisticas.html

Lima, M. E. M. (2000), *The Financing Systems and the Performance of Portuguese Hospitals*, Associação Portuguesa de Economia da Saúde. Working Paper n.º 4/2000, Lisbon.

Lusotransplante (2002), *Estatísticas* http://www.chsul.pt

Mateus, C. (1996), *Vertical and horizontal equity in the finance of health care services: a comparative study of user charges in Denmark, Portugal and the United Kingdom*, Associação Portuguesa de Economia da Saúde, Working Paper 2/1996, Lisbon. http://planeta.clix.pt/economiadasaude/edicoes.html

Ministério da Saúde (1997), «Despacho Normativo n.º 46/97: Estabelece as orientações relativas à instalação e funcionamento das agências de acompanhamento». Ministério da Saúde.

Ministério da Saúde (1998), «Carta de Equipamentos da Saúde». Lisbon, Ministério da Saúde.

Ministério da Saúde (1998), «Modelo de gestão das construções hospitalares». Lisbon, Ministério da Saúde, Grupo de Intervenção Operacional da Saúde: 20.

Mossialos, E. and J. Le Grand (1999), *Health care and cost containment in the European Union*. London, Ashgate.

OPSS — Observatório Português dos Sistemas de Saúde (2001), *Relatório de Primavera*, Lisboa.

OECD (1994) *OECD: the reform of health care systems: a review of 17 OECD countries*. Paris, OECD.

OECD (1998) *OECD Economic Surveys 1997-1998, Portugal*. Paris: OECD.

Pereira, J. and C. G. Pinto (1990). *Regressivity in the NHS-type system — the financing of the Portuguese health care*, Associação Portuguesa de Economia da Saúde.

Pereira, J. and C. G. Pinto (1993). «Portugal» in *Equity in the finance and delivery of health care: an international prespective*. E. Van Doorslaer; A. Wagstaff and F. Rutten, Oxford, Oxford University Press.

Pereira, J. (1995). *Equity, health and health care: an economic study with reference to Portugal*. Department of Economics and Related Studies. York, University of York.

Pereira, J.; A. C. Campos; F. Ramos; J. Simões and V. Reis (1997), *Health care reform and cost containment in Portugal*, Associação Portuguesa de Economia da Saúde. Working Paper n.º 2/1997, Lisbon.

Pinto, C. G. e J. G. Santos (1993), «Incentivos Fiscais e Equidade da Saúde em Portugal», in *III Encontro da APES — Comunicações Apresentadas*, Associação Portuguesa de Economia da Saúde, Lisbon.

Pinto, C. G. and M. Oliveira (2001): «The Portuguese Health Care System: Current Organization and Perspectives for Reform» in *Como Está a Economia Portuguesa? IV Conferência sobre a Economia Portuguesa*, CISEP, Lisbon.

Pinto, M. M.; F. Ramos and J. Pereira (2000), «Health technology assessment in Portugal», *International Journal of Technology Assessment in Health Care*, 16 (2): 520-531. Cambridge University Press, USA.

Simões, J.; Lourenço, O. D. (1999): «As politicas públicas de Saúde em Portugal nos últimos 25 anos», in *Livro de homenagem a Augusto Mantas*, Associação Portuguesa de Economia da Saúde, Lisbon.

Simões, J. and M. M. Pinto (1993), «Clínica privada em hospitais públicos — estudo de um caso», in *III Encontro da APES — Comunicações apresentadas*, Associação Portuguesa de Economia da Saúde, Lisbon.

Urbano, J.; M. Bentes et al. (1993), «Portugal: National commitment and the implementation of DRGs» in *The migration of managerial innovation: diagnostic-Related groups and health care administrations in Western Europe*. J. R. Kimberly and G. de Pouvourvile. San Francisco, Jossey-Bass: 215-253.

Vaz, A. M. (1993), «Planeamento e Paradoxo — O Caso dos Equipamentos Médicos Pesados (TAC e RMN) em Portugal», in *III Encontro da APES — Comunicações Apresentadas*, Associação Portuguesa de Economia da Saúde, Lisbon.

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