

**THE EMERGENCE OF "PATIENT TRAJECTORIES" AS A NEW OBJECT TO
GOVERN HEALTH POLICIES**
Case studies of patient management in dialysis and cardiology

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Introduction

Public policy dynamics is usually analysed by studying the instruments in place, particularly economic and management instruments. Under this approach, economists and managers facing a given health situation, must seek the best instrument able to respond to various issues such as efficiency, quality or fairness. This is a legitimate approach in cases where the healthcare process is already mostly pre-determined. It means that governed objects in particular, that is to say objects that we chose to manage, already are determined. This approach may seem strange. In fact, we could think that those objects have always been there and, for example, we could understandably consider that hospitals, in France at least, have existed for two centuries at least, that their walls are quite visible, that employees work there and regularly openly show their engagement to their institutions... in short, that the hospital is well managed in the sense that it is the object of a policy. Quite obviously, earlier charitable institution hospitals were quite different from the hospital/scientific complex of today. However, even if we specifically limit ourselves to contemporary times, we can see that it is only recently that hospitals have become established as a management object, as an object of government.

It may already be clear that we intend to prove the need to take into consideration instruments in place and, at the same time, objects over which such instruments have an impact. We propose for the study of this joint objects-instruments dynamic, an approach that helps understand a present transition in the healthcare system: the emergence of an object of government, "patient trajectory".

The adoption of a genealogical system has helped show that the emergence of this new object is the result of an attempt to go beyond two healthcare action methods that have been deemed partially unsuccessful. These are, on the one hand, *planning*, a historical form of health policy action and which has at present been reworked under a public health lens but whose object of government, closely linked to medical disciplines, remains unchanged. On the other hand, we find a more recent health policy action, *regulation*, which directly adopts establishments as a global entity, as its object of government, and seeks to understand their performance through tools such as DRGs (Diagnosis Related Groups) or Homogenous Groups of Patients (GHMs) as they are called in France.

In order to obtain a concrete illustration of the emergence modes of this new object of government, we used two research intervention programmes during which the object "patients' trajectory" was revealed in cases of renal and cardiac pathologies.

But before doing so, an explanation is due of the concept of “governmentality” on which our study is based, and of the way in which it contributes to the understanding of present health policies described here as planning and regulation.

1. Governmentality of the hospital sector

The approach, which consists of taking into account objects of government and instruments simultaneously, where the latter are the material support for a form of public action as will be shown later, is largely based on work by the philosopher Michel Foucault (Foucault 1978). However, it is not appropriate to make here an in-depth study of the importance of such concepts in the philosopher's work, but rather to consider its scope in the design of contemporary public policies. With this approach, in the first instance we must make the concept more operational and especially more synchronous with a research methodology which is not based on archival material but rather on intervention inside organizations. Then we must examine directly its fruitfulness in present hospital policy.

The issue of governmentality

There is no doubt that numerous works have already used Foucault to good effect in the health field (Fassin 1996). Today however, there is a wider development of so-called Foucauldian approaches, outside the areas already marked out by the philosopher. Thus, in management, we see original work emerge (McKinlay and Starkey 1998) that is not limited to the too-easily adopted view of likening management to a new disciplinarian field, as could be suggested by a quickly drawn parallel between accounting tools in the business and monitoring instruments (Hatchuel 1999).

In order to make the concept more applicable to the management sciences field, we propose (Lenay 2001) to define any form of governmentality on the basis of four dimensions, as follows:

- *An object of government* which, as we have seen, is simultaneously the application point of some form of governmentality, the element that the latter attempts to move and which, therefore, defines the latter's legitimacy and specificity with even greater conviction.
- *A definition of performance*. Acceptance of an object of government obviously entails at least being able to define the effect of its action over such object.
- *A method of subject definition* that results from the definition of the object of government and assigns to individuals a place, a role in the form of government. It must be noted that this definition is not necessarily adjusted to the way in which individuals define themselves as subjects, or are defined as subjects within the framework of another form of governmentality.
- *A dominant cognitive operation* and an *associated tool*, which takes back, in the latter case, to economic and management instruments.

The interaction of these four dimensions leads to government practices that may be identified as a unique form of governmentality. None of these four dimensions of itself may cause a form of collective action. Thus, it is not possible to manage a population according to what Foucault called ‘biopolicy’, unless we are able to define and isolate certain attributes of that

population (particularly mortality and birth rate) which make such management action possible. Although death remains an individual affair (through longevity management, (Ariès 1977)), subjects can not be completely defined as belonging to a population and we are no closer to understanding the meaning of managing a population well. On the contrary, armed with judgement tools such as mortality, it is possible to compare the effects of actions applied on populations. It is at this point that a hygienist policy aiming at reducing mortality through methods such as urban planning becomes possible.

We shall see now that this analytical approach helps understand the type of policy applied in the French hospital system, particularly at the regional level, by parties in charge of hospital policy: Regional Hospitalisation Agencies (ARH). We shall attempt in particular, to show the articulation of the different characteristics of each form of government.

Planning

The concept of planning strongly brings to mind a centralised resource allocation action, at least in the public sector. But what are the objects of such planning actions in the case of hospital systems? If we consider its latest form, we see that disciplines, medical specialities or services are the direct object of planning activities. We can certainly think too of other variables common to an establishment, such as beds or places, but it seems that the most structuring planning issues, the ones with respect of which professionals try to position themselves, particularly with the aim of acquiring additional resources (Lenay and Moisdon 2000), are those which are spontaneously closely linked to medical activity.

The features of this form of governmentality are illustrated quite strikingly by the establishment of Regional Health Organisation Schemes (SROS), whose aim it is to define the necessary supply of care and its distribution at the regional level.

In their latest shape there is, in fact, a segmentation of SROS according to public health orientations: cardiology - and we shall come back to this, oncology, emergencies, etc. In every case, the aim is to operate entities that are quite homogenous from the medical point of view. But the issue is to translate recommendations made for an activity in general, into operational versions that come to light in the shape of authorisations of activity or equipment at the establishment level. In order to perform these translations, it is necessary in particular to gain a measure of performance. In the case of planning, performance is assessed essentially on the basis of quality measured by activity thresholds, critical mass, equipment levels and qualifications. In the case of cardiology, it consists, for example, of determining which teams are authorised to carry out heart surgery or what are the activity levels that must be reached and the competences required to gain authorisation to install digital angioplasty equipment. In different cases, quality criteria are directly linked to the relevant medical speciality, which correlates this form of government to the way in which professionals view themselves as subjects.

Regulation

As indicated in the introduction, hospitals were not always the object chosen by health policies, or at least they have only recently become a true object of government, provided with a performance gauge in particular. In fact, it is well-known that in the early eighties French hospital activity was only gauged by relatively crude administrative indicators, such as the number of days covered or the mean duration of a hospital stay. It was difficult under

those conditions to make an establishment aware of its responsibility through instruments such as global endowments, introduced in 1983. It was at that time, however, that the process began that gradually attempted to turn hospitals into an object of government, viewed from the production system approach.

The establishment of this new form of governmentality may be followed with great accuracy through the management instruments put into place: the “Medicalisation Programme of Information Systems” (PMSI). Without retracing its full history, (Engel, Kletz et al. 2000) it is useful to understand the construction principles of such a tool, since it helps reveal the nature of the form of government it is associated with.

In the first place, we must have a description of hospital activity, which takes into account for each stay, both its medical specificity and the consumption of resources it requires. This description relies on the design of a classification in Diagnosis Related Groups, or Homogenous Patients Groups (GHM). In comparison with the use of DRGs in other countries, France has chosen an instrument that allows the economic evaluation of these GHMs not on the basis of costs seen in all establishments, but simply on the basis of a sample. It is then possible to determine the mean cost for each GHM - of some 500 - expressed in a non-monetary unit, thus facilitating the comparison of their respective positions. This unit is called the ISA (the French acronym for Synthetic Activity Index), and we therefore find out not only the value in ISA points for each GHM but also and especially the total number of points produced by each establishment. This number, transferred to its budget, provides each establishment with an indicator of global over- or under-productivity. Hospital performance is thus reduced to a single figure. By the way, this instrument is indirectly inspired from certain economic models (Schleifer 1985), also considered when using DRGs.

What are the forms of action in place with this kind of governmentality? It is not easy to draw up their inventory today, inasmuch as players who might establish what we call here regulation policies, are still young. In fact, this instrument was deployed at the same time as the start of the regionalisation of budget allocation, and ARHs in charge of such allocations were only organised in 1996, with their first budget campaigns in 1997. Some still seek the form of government which is best suited to the health context they deal with. However, follow-up of one of them suggests quite clearly the performance definition mode used by regulation. It is based on the comparison of establishment performance through their ISA point value and, in the case of any digression from mean regional values, on budget corrections proportional to such digression.

It is obvious that this measure of global establishment performance and the manner in which it may reflect on professionals, particularly clinical services, is not without difficulties with respect to the way in which such professionals view performance.

2. Signs of emergence of a new object of government: case studies

Earlier we identified two forms of government coexisting today in the French hospital system. We shall now see that today, in certain cases, and in particular in dialysis and cardiology, these forms of government are going through a crisis, and that there seems to emerge a new form with quite a different object of government from the first two: patient trajectories. Although the concept of patient trajectory has already been used in certain analyses of hospital system operations - but with the purpose of emphasising the need for coordination among professionals within the same establishment (Minvielle 1996), the approach here is

different inasmuch as the use of this concept focuses especially on responding to a need for coordination of professionals who belong to different institutions.

From this viewpoint, we shall rely on two research intervention programmes carried out recently. It must be clarified though, that plans of action are not completely defined in these two cases, and that it is therefore above all, a case of conducting a prospective exercise aimed at identifying the signs of emergence of a new form of government.

The first research, carried out at the request of the Ministry of Health, was concerned with the design of a medical-economic typology of dialysis patients, which should help overcome two major problems: inadequacy of planning tools such as health card on the one hand, and on the other, fee negotiations that tend to favour, at present, pricing policies based only on the nature of the healthcare institution.

The second, in progress at present at the request of an ARH, aims to offer cardiology professionals a representation of their activity through the cardiology itineraries of patients in the region. It must integrate the various modes of case management, be it general practices in town or hospital care, and take into consideration possible transitions between these different types of professionals as a function of the supply of healthcare available in a given area.

Dialysis

Like numerous types of healthcare, dialysis sessions, and in particular hemodialysis¹, may be carried out in public or private hospitals, but also and this is a characteristic of this pathology, in associated units especially designed for this type of care². Furthermore, it is possible for certain patients whose condition allows it, to have their dialysis sessions at home (with the help of a third person, a nurse or spouse). These patients depend, then, on a healthcare structure that ensures medical follow-up, the logistics to provide products and materials required for their sessions (dialysis machine, solutions in the case of hemodialysis, bags for peritoneal dialysis) and hemodialysis machine maintenance, if applicable.

Finally, since the early eighties, it has become obvious that certain patients who may use home treatment, prefer, for "extra-medical" reasons, not to receive a painful and frequent treatment at home. It was then suggested to create a substitute, slightly medical unit, where hemodialysis patients could set themselves up and come for their dialysis. Thus was born auto-dialysis, which has expanded widely since then.

The crisis of existing forms of government

Hemodialysis centres are subject to operating authorisation and to the health card which sets, in the same manner as for any equipment subject to authorisation, a quota of dialysis positions per region, where the number of patients per position varies from one centre to another (although, in theory, "one position equals one patient"). Initially, this limitation on centres

¹ There are other dialysis techniques, particularly peritoneal dialysis. To keep our paper short, we shall only mention hemodialysis here.

² One of the first units of this kind was AURA (Association for Artificial Kidney Utilisation), founded in Paris in 1967 and dealing at present with a thousand patients each year, employing 400 people with an annual operating budget of 40M€. These figures, similar to those of a small hospital, give an idea of the importance of units of this kind in the dialysis world. Since then, numerous other units have been established throughout the country: the Lorraine Association for Kidney Failure Treatment (ALTIR), the Bretagne Association for Chronic Uremic Patients (AUB), etc. Some have about ten dialysis units, distributed over a region and have public health hospital status (PSPH).

was aimed at encouraging patients towards alternative units, i.e. favouring the development of treatment away from healthcare centres. But today it appears that many regions have seen their health care saturated, so much so that certain patients who 'belong' to heavily booked healthcare centres, are actually treated in auto-dialysis centres because of the lack of space. With the years, certain auto-dialysis units have evolved from true substitutes of home treatment and have become "light" centres, although their status has not been modified. These "light" centres exist in fact but not in official texts.

On the contrary, certain patients who are treated at present in centres, could take advantage of auto-dialysis units but are not aware, it seems, of their existence.

To the diversity of units caring for dialysis patients, remarkable differences in finance modes should be added. These vary according to the status of the unit, but also from one region to the next, regardless of the severity of the treated patients' disorders. Dialysis patients treated in hospital are financed through a general instrument, i.e. global allocation. On the other hand, in associated or private units, patients pay lump sums per session, generally depending on whether it is a traditional centre or an auto-dialysis centre. This same system of finance applies to patients treated at home: funds are allocated to the unit to which they 'belong'.

Per-session lump sums include all the expenses relating to a session, such as personnel, material (hemodialyser), consumable items (dialyser for hemodialysis, bags for peritoneal dialysis, various solutions, erythropoietin (EPO), etc.), logistics costs, meals, and general management. Home dialysis patients receive also a so-called third party indemnity.

From the two above statements it may be concluded that the treatment of chronic renal failure is unsatisfactory at present because of geographic disparities resulting from poor planning, and because of questionable fee setting systems that bear little relationship to the nature of the treatment and the seriousness of the disorder. Therefore, a reform is needed, and the one envisaged at present is based on the design of the patients' medical-economic typology, as follows.

Design of a medical-economic typology

A data collection exercise was conducted over a sufficiently long period of time (one month) and in two administrative regions, in units as diverse as possible in terms of their treatment of patients (dialysis in the unit, auto-dialysis, home dialysis) and of type of establishment (hospital centre, clinic, association). The data included a wide range of variables, which helped bring to the fore *a posteriori*, issues linked to kidney disorders.

Two types of data were collected:

- Data on the patient: place of residence and lifestyle, means of transport, dialysis technique, renal characteristics (initial kidney disease, residual kidney function), and associated pathologies, other problems (motor, sensory, vascular complications), etc.
- Data on resources used by the patient during the month, identified per day, volume of EPO, antibiotics, enteral and parenteral nutrition, volume of peritoneal dialysates, biological activity, medical-technical activity, intensity of medical and nursing care, etc. The collection of data on such consumption, by day, would help discriminate between consumption between dialysis sessions and during the sessions.

The philosophy behind this collection of data is to be as comprehensive as possible and to describe the patient not only on the basis of resource consumption but also of a detailed description of their health status.

Without going into technical details on the typology design, the collection of data resulted in two distinct typologies that explain the variation in resource consumption, on the basis of patients' characteristics: the first in 5 classes for hemodialysis and the second in 6 classes for peritoneal dialysis.

The costing model envisaged by the CGS for hemodialysis patients (Engel, Lenay et al. 2000) was based on a survey carried out in several dialysis units, which helped complete the information provided by the data collection on expenses of treatment units. This survey helped calculate costs directly related to treatment units for each type of treatment³. These figures later served to calculate the total cost of patients per class, by adding to the cost of resources used by each patient, as collected and assessed on the basis of data compiled during a period of one month, the costs of the following per session:

- Costs of consumable items not included in the data collected for the patient (usual medication, small consumable items),
- Costs of medical logistics, biomedical function, laundry and meals, general management and administration,
- Part of the medical and paramedical personnel expenses as a function of the intensity of care provided to each patient in the group.

By distributing each patient according to the typology class as defined by his/her characteristics, it is possible to calculate the mean cost per session and per typology class, as well as per type of unit.

The result for hemodialysis patients, is the following 5 class typology:

Table 1 : Mean dialysis costs per class and per unit

	<i>Class 1</i>	<i>Class 2</i>	<i>Class 3</i>	<i>Class 4</i>	<i>Class 5</i>
Centre	1878 F (93)	2049 F (195)	2073 F (150)	2327 F (137)	2387 F (128)
Auto-dialysis	1446 F (71)	1497 F (77)	1447 F (18)	1764 F (10)	-
Home	1216 F (15)	1221 F (17)	-	-	-
General Average	1650 F (179)	1853 F (289)	2006 F (168)	2289 F (147)	2387 F (128)
Variation Coefficient	0.20	0.20	0.16	0.18	0.17

Towards new organisational modes

The originality of the typology design lies in the fact that it evaluates not the economic performance of the units, but rather the economic performance of the patients' trajectory, a performance defined by the typology completed by the costs model. Therefore, we do not define fully *a priori* the type of unit effectively in charge of the patient. Only particularly serious cases must be treated by a 'heavy' centre. As far as the others are concerned, we can let

³Treatment units were asked to provide amounts for the following expenses: medical consumable items, peritoneal dialysis bags, hemodialysers, erythropoietin, enteral/parenteral nutrition, biomedical function, paramedical care, medical care, accommodation and meals, administration and management, medical and paramedical logistics. Overall, 131 units (hemodialysis in centre, in "light" centre, auto-dialysis, etc.) provided their data.

the patient decide on treatment at home or at a 'heavy' centre and decide on an average fee based on Table 1 costings. The following Table illustrates the above:

Table 2 : Dominant modes of treatment and relevant fee per typology class

<i>Category of patient</i>	<i>Type of unit</i>	<i>Fee</i>
Classes 1 and 2 home (free patient choice)	Home	1250
Classes 1 non-home	100% Auto-dialysis	1450 (or same fee as for class 2)
Classes 2 non-home (free patient choice)	100% Auto-dialysis	1500
Class 3	50% 'Heavy' centre 50% auto-dialysis (or official creation of a new intermediate unit)	1800
Class 4	100% 'heavy' centre	2300 (or same fee as for class 5)
Class 5	100% 'heavy' centre	2400

The following scenario, which takes into account both regulation and planning considerations, may then be envisaged:

- Regarding resource allocation, local regulators could record the patients under their care, receive a financial appropriation for the case-mix defining their patients and manage such appropriation in such a manner that patients receive different care according to their health status. The local regulator must ensure the cooperation of professionals who are "co-producing" care trajectories: hospital, associations, clinics, town laboratories and general medical practitioner.
- Regarding planning of provider units, a guidance instrument would ensure that 'heavy' patients could receive the benefit of tailored care. In these cases in particular, these heavy categories must be treated in units called "heavy centres". Furthermore, after a few months in operation, the instrument helps record the lack of certain supply units and authorise then the creation of such units for which a need has been established. It goes back to planning operations, but rationalisation of supply is kept at the local level and totally linked to the assessment of economic performance of the trajectories management.

However, the implementation of this innovative scheme requires that a certain number of technical issues be resolved: viability of an information system that allows the routine allocation of any dialysis patient to one and only one class, and the monitoring of the evolution of their allocation in time, connection of this information system to the Medicalisation of Information Systems Programme (PMSI) to ensure at once the full description of the trajectory and hospital financing (for example, as ISA points), etc.

Any experiment should respond to these objectives which would also simultaneously test the relevance of the classification and the possibility of regulating the system from the financial and planning points of view.

This new venture that, on the basis of patient categories and average costs for those categories, launches a decision process combining specificity of supply, patient guidance and allocation of responsibilities to relevant organisations, and which does not belong with regulation or planning, seems to fit spontaneously within the description of *organisation*. Furthermore, this type of venture where medical consistency of pathology cases considered is relatively strong, includes doctors widely in typology design and in the operation of the

financial instrument, thus ensuring the success of the enterprise. In this form of government, professionals are placed in a cooperative position surrounding patients' trajectories.

Cardiology

In the case of cardiology, the diversity of treatment units is smaller than for dialysis. However, at the regional level, the crisis of forms of government is also apparent and furthermore, it is practically expressed in these terms by the officers in charge of the ARH where the intervention research was carried out.

Crisis of existing forms of government

Without preparing here a detailed inventory of the difficulties encountered in the organisation of cardiology care at the regional level, some examples may be quoted to illustrate clearly the crisis of present forms of government.

As we have seen earlier, under regulation policies establishments identify through PMSI, the stays they have produced. So, for example, an angiography followed immediately by an angioplasty and then admission, will be identified by the establishment as a stay in an angioplasty GHM. But quite frequently for these treatments requiring particular equipment, stays are actually co-produced by various units. For example, a first unit identifies the need for an action but does not have the necessary equipment, so it transfers the patient to a second unit that will carry out that action and will finally send the patient back to the first unit. Overall, each establishment will have recorded at least one stay in the angioplasty GHM, which in fact does not correspond to the consumption of resources by each unit, particularly for the one performing the action and bearing the cost of any endocoronary prostheses used. In this example there is a clear gap between the patient's treatment in which institutions take part, and the way in which we account for it financially, as if it consisted of several independent treatments.

On the planning side, it seems difficult to think of the consistency of transfer operations based fundamentally on the respect of certain criteria relating to planning objects - teams for example – without also thinking of the inherent links of such objects. Thus we encourage teams to reach certain activity thresholds, for example in the technical area of coronary pathologies (coronarography and angioplasty) without any certainty as to whether the demand of the population of France is actually filled by France's establishments, or whether encouraging activities is leading to substitution strategies of such techniques, particularly in the case of cardiac surgery.

In more general terms, there is a certain difficulty in reorganising a sector for which the care provided may be excessive or ill distributed in some cases, without knowing precisely what activity should be discontinued or developed.

An original regional initiative

In the face of this difficulty with government forms managing system operations in a satisfactory manner, a new form of collective action must be found. The idea is to lead professionals towards reorganisation by offering them an accurate image of cardiology care in the region. This entails going beyond team level performance assessments as proposed by classic planning criteria and, also approaching regulation within a framework tailored to cardiology treatment, combining different unit types, particularly hospitals and town practices.

In order to construct this image of a regional cardiology organisation, we must use the concept of patient trajectories directly, identifying initially patient itineraries within the healthcare system, regardless of the healthcare services used. Pathologies chosen were *hypertension, arrhythmia, cardiac failure and ischemic cardiopathy*.

To this purpose we used the Health Insurance data system, in collaboration with SMAMIF (Health Insurance Medical Service of Ile de France). In fact, through reimbursement of its members, it provides data on almost every type of health expense, including general practitioner consultations, specialist consultations or even private hospital admissions. Only the public hospital system has a weaker patient care description level because of the global endowment system.

Thus, data are available:

- On the patient: association of used tracer drugs, sex, year of birth, death if occurred during the period of time studied, postcode, etc.
- On each visit made to a physician: date, practitioner's speciality, consulting room postcode, total units of treatment for each visit, etc.
- On drug prescriptions: total amount, amount for cardiac drugs
- On travel: date of travel, departure and destination postcodes, distance travelled, cost, reason for travel.
- On prescriptions for outpatients: total expense for biology, imaging, rehabilitation, nursing, etc.
- On public and private admissions: institution, admission date, full duration of stay, etc.

These databases provide patient itineraries within the regional healthcare system. However, they do not provide the reason why the patient sought care. Therefore, it became necessary initially, to find a link between drug prescriptions and cardiovascular pathologies. Two databases that provided drug - pathology links were used. These were the database resulting from the Social Health Protection survey carried out each year by CREDES, focussed on patients (but without the possibility of retracing their itinerary) and the IMS database (focussed on the practitioners). As a result of this process, it was possible to find drugs and tracer drug associations, which are apparently specific to the four pathologies in the study.

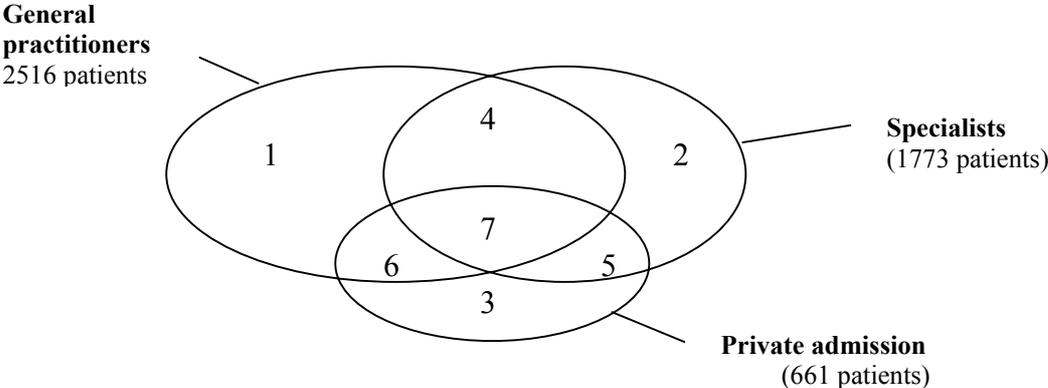
A test was performed on the Paris Department, on the basis of a medical marker for ischemic pathologies (nitrate derivatives+betablockers+cardiology quality aspirin). The Paris Medical Service and Paris CPAM collected the data within SIAM. A study of the data provided by this test confirmed that it gave satisfactory results. The next phase was using the databases, this time at the regional level and for all the markers relating to the four selected pathologies.

A study of town-hospital relations

Present research does not provide a description of patient trajectory. Furthermore, it will be necessary also to define what a good patient trajectory is for a given regional system. But with relevant patient data according to the following types of care: general practitioner consultations, specialist consultations, public and private hospital admissions, it may be possible to identify within the test, current modalities for different professionals and to determine also how often patients resort to only one professional, two, three, etc.

Initially these cross-references may be done for sets such as «general practitioner consultations», «specialist consultations» and «private admission» together, for which costing is already available:

These different patient sets and their intersections may be represented as follows:



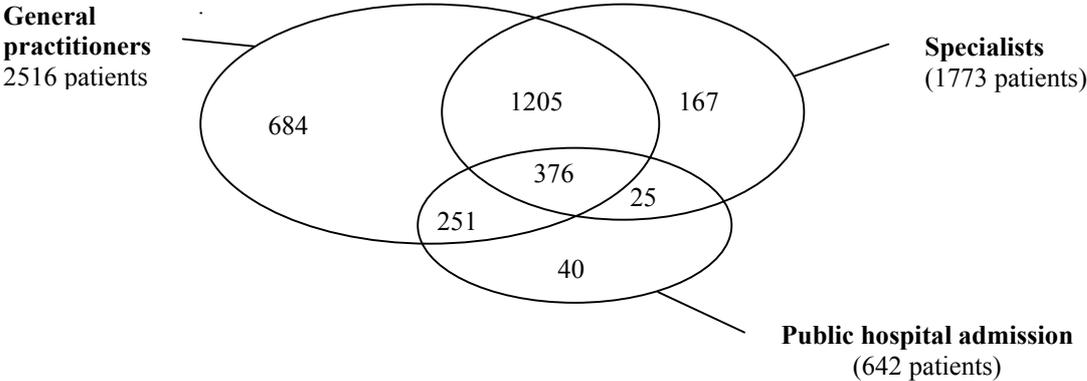
Thus, set 1 is made up of patients who have only seen general practitioners during the year, while the opposite, set 7, corresponds to patients who have received three types of care, etc.

For each one of these seven sets, total numbers and average costing are as follows:

Table 3 : Categories of professional care

Sets	Total numbers	Average cost (in €)
1	774	1995
2	161	1448
3	7	11584
4	1119	2005
5	31	10177
6	161	5434
7	462	5832

The same kind of analysis may be carried out for the three sets «general practitioners consultations», «specialists consultations» and «public hospital admission» but, in this case, only total numbers are available, but no costs. Total numbers are included directly in the relevant sets:



These preliminary figures illustrate the usefulness of following up this research. In fact, it would be advisable to understand, for example, why the average cost for patients who do not consult general practitioners is higher than costs for those who only see specialists. Or then again, why the total number for admitted patients is higher when patients also see a general practitioner rather than a specialist. Following patient trajectories and especially their insertion in a given healthcare context, would no doubt facilitate the study of such questions.

Conclusion

By the end of this study we can not fail to be struck by the similarity of the form of governmentality that uses patient trajectories as its object of government, with American managed care structures. In fact, in both cases health policy is organised around the management of patient itineraries within a given healthcare system, for an often well-identified pathology. Our study however, focuses particularly on the object characterising a healthcare policy, rather than on the agent who will eventually be in charge of applying it efficiently. We have also shown through very special processes in both cases studied, that it is sometimes necessary, in fact, to see a new agent emerge, who will apply the policy. Thus, in the dialysis case, it is probable that the organisation scheme envisaged will only be possible with this new agent in place. On the other hand, in the cardiology case, the player is more or less already present, but its capacity to act is limited by the lack of a government object fit for its field of action.

However, we should not be led to believe that the emergence of a new form of governmentality in the healthcare sector banishes the other two existing forms that, we have seen, have been largely reformed over the last few years.

Finally, the question remains of whether this healthcare organisational model may be transferred to other pathologies. In fact, renal and cardiac pathologies included in this model, belong in the chronic disorder particular class. In these cases it is possible to restrict populations *a priori* who may be susceptible to receiving care.

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