



Master of Public Health

Master international de Santé Publique

Measurement indicator use in French regional health agencies

The case of public health

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List of acronyms

ARH	Regional Hospitalisation Agency	Agence Régionale de l'Hospitalisation
ARS	Regional Health Agency	Agence Régionale de Santé
CLS	Local Health Contract	Contrat Locaux de Santé
CNP	National Steering Council	Centre National de Pilotage
CPOM	Pluriannual Objectives and Means Contract	Contrat Pluriannuel d'Objectifs et d Moyens
CSP	Public Health Code	Code de la Santé Publique
CUCS	Urban contracts for social cohesion	Contrats urbains de cohésion sociale
DGOS	Directorate General of health care	Direction Générale de l'Offre de Soins
DGS	General Directorate for Health	Direction générale de la Santé
DREES	Directorate of Research, Studies, Evaluation and Statistics	Direction de la recherche, des études, de l'évaluation et des statistiques
EHESP	School of Public Health	Ecole des Hautes Etudes en Santé Publique
IGAS	General Inspectorate of Social Affairs	Inspection Générale des Affaires Sociales
INSERM	National Institute of Health and Medical Research	Institut National de la Santé et de la Recherche Médicale
INVS	Institute for public health	Institut de Veille Sanitaire
LOLF	Organic Law on Finance Law	Loi Organique relative aux Lois de Finances
NGO	Non Governmental Organization	Organisation Non Gouvernementale
OECD	Organisation for Economic Co-operation and Development	Organisation de coopération et de développement économiques
PLFSS	Law on financing National Health Insurance	Le projet de loi de financement de la sécurité sociale
PRS	Regional Health Project	Projet Régional de santé
SGMAS	General Secretariat of the Ministry of Social Affairs	Secrétariat Général du Ministère des Affaires Sociales
ZEP	Areas of Priority Education (PTA)	Zones d'Education Prioritaire

Abstract

Introduction

In 2009, France undertook a major reorganization of its health policy-making apparatus, creating 26 regional health agencies (ARS) to set priorities and coordinate implementation of health policy at the sub-national level. Monitoring of these establishments benefiting from financial and administrative autonomy appears to be of a major concern. This study proposes an original study of the definition and the use of indicators by ARS and General directorate for Health (DGS) defined under the contract 2010-2013 which is the first of this type in France.

Methods

Semi structured interview with identified actors involved in ARS indicators were conducted to gather knowledge on their definition and use. Internal documents of the DGS were used to allow analysis and comparison. Finally the international literature enabled us to compare our results with what is currently done.

Results

This study leads to the design and implementation of a dashboard presenting for each region the 11 indicators under the responsibility of the DGS. The review of the indicators enabled us to bring to light some findings related to their conception. Regarding the use of indicators by ARS and DGS, our study shows that it is still a work in progress as, for the moment no tool for synthesis has been implemented.

Discussion

Our results of the analysis of the indicators raise some issues about their selection and final goals. The design of the dashboard leads to an evaluation of the availability of the data and calls into question the definition of the indicator and associated targets. A synthesis of the indicators which seems to be a major step will also be discussed.

Abstract in French

L'utilisation d'indicateurs dans les agences régionales de santé en France

Le cas de la santé publique

Introduction

En 2009, la France a entrepris une réorganisation majeure de son instrument de pilotage des politiques de santé en créant 26 agences régionales de santé (ARS) pour coordonner la mise en œuvre de la politique de santé au niveau régional. Très rapidement s'est posé la question de la tutelle et de l'évaluation de ces agences dotées d'une autonomie financière et administrative. La présente étude a pour but de faire un état des lieux de la mise en place de ces indicateurs en se focalisant dans les domaines de la santé publique, la promotion de la santé et la veille sanitaire.

Méthodes

Des interviews semi-dirigés avec les personnes chargées de la conception des indicateurs ont permis de connaître leur historique et leur utilisation. Des documents internes au sein de la direction générale de la santé sur les indicateurs ont permis l'analyse. Enfin, la revue de la littérature internationale nous a permis de comparer nos résultats.

Résultats

Les travaux de cette étude ont aboutis à la mise en place d'un tableau de bord présentant les 11 indicateurs dans le champ de compétence de la DGS pour chaque région. L'examen des indicateurs a également permis de mettre en lumière certains aspects relatifs à leur conception. Concernant l'utilisation, notre étude a montré qu'il y a encore du potentiel pour le progrès dans la mesure où aucun document de consolidation nationale ne permet de faire une synthèse.

Discussion

Nos résultats sur l'analyse des indicateurs nous amènent à discuter sur leur choix et les finalités attendues quant à leur mise en place. La conception du tableau de bord nous a conduits à évaluer la disponibilité des données et à se poser des questions sur la définition des indicateurs et des cibles associées. La question d'une synthèse nationale sera également discutée.

1 Introduction

In 2009, France undertook a major reorganization of its health policy-making apparatus, creating 26 regional health agencies (*Agences regionales de santé* [ARS]) to set priorities and coordinate implementation of health policy at the sub-national level. The limits of the previous organization were stated in Ritter report (2008) which called for a “unified and accountable territorial steering” [1].

The 2009 law “*Hopital, patients, santé, et territoires*” (Law on Hospitals, Patients, Health, and Territories - (Loi HPST)) created, in its article 118, the ARS which became the backbone of the healthcare organization merging a number of departmental and regional bodies [2]. Launched on the first of April 2010, the ARS is an administrative public establishment benefiting from financial and administrative autonomy and is responsible for implementing health policy in the region [3]. The director of each ARS derives his or her authority directly from the state, being nominated by the *Conseil de ministres* and is acting under supervision of the ministry of health. The major decisions of each ARS need to be approved by the National Steering Council (CNP) ‘*Conseil national de pilotage*’. The latter coordinates ARS in their action plans, validates directives given to the ARS issued from the directions of the central administration of the ministry of Health (DGS, DGOS...) and evaluates the consistency of implemented policies.

Along with the implementation of health policy, each ARS monitors general health conditions of the population, controls hygiene protocols and plays a vital role in developing health prevention and patient’ education programs. The ARS is in charge of sanitary inspection missions and is involved in preparing for and responding to a public health emergency or disaster. ARS also evaluates health professionals’ trainings and finally monitors medical procedures and health care delivery. The actions of the ARS are supported on a smaller scale thanks to departmental delegations. Two important missions are ensured by the ARS: [4]

- The regional public health policy steering
- The regulation of healthcare delivery

As shown in table 1 below, the agencies have to concentrate on three national priorities: [5]

1) Improving life expectancy in good health, 2) Promoting equity in health and 3) Developing a high quality health system, accessible and efficient.

Table 1: Presentation of the National priorities and objectives of the ARS

National priorities	Objectives
Improving life expectancy in good health	<ul style="list-style-type: none"> • Reducing avoidable premature mortality
	<ul style="list-style-type: none"> • Developing health promotion and disease prevention
	<ul style="list-style-type: none"> • Strengthening the effectiveness of the health surveillance system
Promoting health equity	<ul style="list-style-type: none"> • Reducing territorial and social inequalities in health
Developing a high quality health system, accessible and efficient	<ul style="list-style-type: none"> • Improving the quality and efficiency of care and medico-social services
	<ul style="list-style-type: none"> • Adapting medical care and medico-social services to needs
	<ul style="list-style-type: none"> • Optimizing outpatient continuity of care organization
	<ul style="list-style-type: none"> • Containing health spending and restoring sustainable financial balance of public health organizations
	<ul style="list-style-type: none"> • Developing care and life pathways for elderly and disabled

Every ARS director signs a contract with the state named '*Contrat pluriannuel d'objectifs et de moyens* (CPOM). In the current contract 2010-2013, the three national priorities presented above are divided into 9 objectives, as reported in table 1. In addition, 41 measurement indicators have been set, of which 31 'performance indicators, called 'business indicators' and 10 'management indicators'. These indicators are shared by all ARS and in some cases, specific indicators are proposed on the initiative of a region, given a particular context.

A close relationship exists between each ARS and the ministry of health, via one of its central directions, the General directorate for Health – *Direction Générale de la Santé - DGS*. Supervising all ARS, the DGS is also in charge of public health and health missions and coordinates ARS actions in these particular domains. It provides methodological support, prepares public health plans and programs or performance contracts with the ARS. Under a close partnership with the ARS, DGS defines and follows up 11 out of 31 performance indicators of the CPOM 2010-2013.

Table 2: List of indicators in the public health, health prevention, health surveillance and sanitary security sectors in the scope of expertise of the DGS.

Number	Designation
1	Premature avoidable mortality
2	Suicide rate per 100 000 inhabitants age-standardized
3	Prevalence of obesity among children in the last year of nursery school
4	Prevalence of overweight (including obesity) among children in the last year of nursery school
5	Participation rates in organized colorectal cancer screening among 50 to 74 years
6	Participation rates in organized breast cancer screening (women 50 to 74 years)
7	Vaccination rate coverage among 24 months old children against measles, mumps and rubella
8	Percentage of national plans applied regionally and having undergone a revision in the year
9	Percentage of water units supplying drinking water to over 5000 people with recurring exceedances of quality
10	Number of homes having undergone a sanitary evaluation that led to a procedure under the CSP (Number of dwellings or premises declared unsafe or at lead exposure risk)
11	Number of local health contracts (CLS) signed on priority urban areas (CUCS, ZEP) or rural area (isolated)

Among the nine objectives defined above (Table 1), four come under DGS responsibility:

- Reducing avoidable premature mortality
- Developing health promotion and disease prevention
- Strengthening the effectiveness of the health surveillance system
- Reducing territorial and social inequalities in health

No analysis of ARS indicators was conducted since they were set in 2010. A midterm overview appeared to be relevant.

Our survey was undertaken as a Master of Public Health II internship project at the “General Secretary” of DGS. During my practicum, I carried out three different missions, and the study presented in the MPH thesis relates to the third mission which took place from early April to end of May 2012. The study objectives are described below.

2 Study Objectives

The main objective of the study was to perform a follow up of the ARS indicators under DGS supervision mentioned above, in order to assess the current use of these indicators according to different perspectives.

First on the ARS level, to what extent these indicators reflect their regional situation to enable further evaluation. This process demands an overall comprehension of the ARS context from a historical point of view to an understanding of the indicators defined. 30 figures being available to describe the situation in each agency and reflecting the regional context, a global overview has required preliminary compromises. Understanding the creation process is a pre-requisite to answer the question raised by our study.

A second objective of this study is to understand on a national level how the indicators under the DGS supervision as earlier recalled, are used. This includes first to explore how the data from the 26 regions are collected, second how they are treated and analyzed and eventually how they are presented for conclusion and recommendations. An effective dashboard is a major step when analyzing performance but beside the technical aspect, the information provided by the dashboard to decision makers is the key issue to help them for steer the health policies. Ultimately, the fulfillment of initial objectives and strategies by the indicators will be reviewed and hopefully recommendations proposed.

Finally, this study aims to give a global perspective of ARS's indicators in the area of public health, health prevention, health promotion and health surveillance. Performance indicators are of high interest in public health while their use has increased a lot during the last decades. In France, the sector covered by ARS brings an innovative dimension of public health and its assessment is a new challenge. The decentralization process – so called '*deconcentration process*' is a current trend in the French health sector and incorporates an extraordinary range and variety of operating and managerial arrangements which make analysis more difficult. However in developing measurement indicators use and performance assessment for regional operators, the study wants to put in relief public health assessment issues that could be of interest for public health professionals.

3 Study Methods

This study concentrates on indicators in the French regional health agencies with a focus on three main domains

- Public health
- Health surveillance
- Health promotion

Although there was strong interest in learning about the overall ARS's indicators, the general directorate of health is exclusively in charge of these indicators.

Data Sources

The study design consisted of three data-collection methods: (1) A thorough documentary research has been conducted with the use of the following keywords: "performance indicators", "measuring performance in health care", "public health performance indicators", "public health system assessment", "monitoring and evaluation in health care". (2) Interviews with key informants, who worked on the definition and selection process of the indicators. (3) Data-collection and consolidation of:

- The indicators technical worksheet
- The 2011 follow-up of the indicators for each French regions (n=26)
- The 2011 feedback of each region for all the indicators (n=26)

Documentary search

As regard performance indicators, a great range of publications are focused on public health indicators [7] [9] [11] [15] [16] [21] [22] [26]. Many institutional bodies (NGO's, governmental bodies) have publications on health system performance on a large scale (health care delivery, population health...) The particularities of the French system with the regional health agencies have required special indicators to assess their performance. In this context, the reference documents consisted of general knowledge about the evaluation of performance in the health sector as well as public management, assessing decentralization in healthcare, environmental indicators and evaluation report from central administration on the ARS.

Articles were obtained through a literature search using search engines Science Direct. Articles written in English, and French with English abstract were selected from 1999 to 2011. Four principal MeSH terms were used for the literature search queries: 'Measurement indicators AND public health AND performance AND monitoring AND evaluation AND health system.

Internal documents of the ministry were also used such as presentations and work reports when defining the main goals and objectives of the indicators. Finally, the ARS's websites were a good source of information with some quality report and regional health project / Projets Régional de Santé (PRS) which defines the guidelines for national health policy.

Interviews

Semi structured interviews with 3 identified actors involved in ARS indicators were conducted. The lead responsible of the selection process of the indicators was interviewed, as well as the responsible of the contract with the ARS within the Secretariat General of the Ministry of Social affairs (SGMAS). Interviews were approximately one hour in duration and were conducted with a pre-established questionnaire (Appendix 1). The key items covered in the interviews included the selection process of the indicators, their current use and their follow-up. Interviews were used to get both the historical process of the indicators and the problems faced while they were framed. The information collected reflects personal and/or institutional point of views and can't be used to build empirical and statistical knowledge or answer. Although they can't be considered scientifically relevant, the information collected was of great interest to build my own reflection on the subject

Data-collection and consolidation

All the indicators have a technical worksheet (see chapter 4.2.5) which was designed during the definition process. To understand and analyze the indicators, these worksheets were gathered from the General Secretariat of the Ministry of Social Affairs which is in charge of the partnership with other ministries and central administrations to build and follow the indicators. The worksheets were compiled in a single document to allow comparison and study.

The General Secretary of the Ministry of Social Affairs put in place a shared Excel document with the ARS to collect all related indicator data. Each region was asked to fill the document with a deadline. We collected the documents (n=26) and started to consolidate them in a

single one to help the DGS to have a global view of these indicators (see appendix). It contains the eleven DGS's indicators and the regional specific indicators. Graphics are used for comparison among regions and also for a detailed view of a specific indicator in a particular region. This work was done by using Excel formulas and programming language Visual Basic.

At the end of the indicator data collection process, a note containing a synthesis of each indicator with the comments of the region and of the responsible of the ARS performance was sent for eventual corrections to the region (see chapter 4.2.8). Once the filled in note was returned to our office, an analysis of the comments was conducted. They were a good complement to the figures collected for which explanations were needed, but also when data were missing.

Evaluation topics / proposed framework

The results of the study will be presented in two parts. First, the results from the literature on the methodological processes for building indicators will be provided. This part is summarizing and presents some indispensable logic frameworks used in defining indicators. The analysis of the different indicators used by the ARS will be made in the second part of the results from internal data of both the Ministry of Health and the Ministry of Social Affairs. Starting with a historical description, the process used for their selection will be evoked followed by some characteristics on the indicators such as the indicator frame, the data source and data collection. The presentation of their use will be done at two different levels. The national level will be focused on how indicators are collected, analyzed and presented. On the ARS level, the results from the regional worksheet synthesis will be presented. The final part will aim to discuss some issues on the choice of the indicators and on their current uses. The discussion will be based on the methodological points presented in the results and their current utilization as well as on the different interviewees' opinions. Finally, impacts on their use and learnings from these indicators will be questioned.

4 Results

4.1 Results from the literature review

Before exploring the process used to select indicators for the ARS, we can begin with some basics concepts about the indicators. These result from our research on methodological guides based on references obtained during teaching and using the technique called "snowball" that the bibliography of a first document is the basis for finding another one.

4.1.1 Defining indicator

The notion of indicators is not a new concept in the field of public administration. For over a decade, most of the OECD governments use indicators to measure achievement of objectives and other aspects of management to assess their performance. A wide array of health-care performance measures has been developed [5]. Decision-makers at all levels need to quantify variations in health system performance, identify factors that influence it and ultimately articulate policies that will achieve better results in a variety of settings. Measuring performance may give policy makers an opportunity to improve health systems and make them more responsible. In a result based framework, assessing the performance of government organizations and their sub-components is now based on projected results and these results are measured by using indicators. The latter are used at different levels of the organization and at various stages of the management cycle for both measuring the impact of services on population and appreciating the effort required to achieve these results. Performance of the entire health system must be related to the performance of various sub-components or even organizations such as hospitals within the health system [6].

A large number of meanings were given to the term indicator depending on the sector it is applied. However, we can find a definition which satisfies different meanings. It is generally accepted that an indicator is a variable that describes an element in a given situation or an evolution with a quantitative perspective. In most of the cases, it is a tool for decision support. Its use is related to a process that meets a specific objective in a particular context. The definition presented in Table3 below tries to compile the different definitions found in a short, single and comprehensive sentence applicable to the health sector in a context of managing by results.

Table 3: Definition of “indicator”

Indicator: Any significant measure, relative or not, used to evaluate the results, the use of resources or the progress of work.	
<i>A measure</i>	By measure, we establish a variable, a quantity, an index, a status or a degree of achievement relative to a given stage.
<i>Significant</i>	The measure has a signification and is linked with an objective to accomplish. It makes it possible to examine an aspect, a dimension of an activity and to understand its purpose.
<i>Relative or not</i>	An indicator can express a simple measure (number) by presenting a single variable but may also link several variables (percentage, ratio). The indicator can be linked with a target, with an indicator associated to other objectives or with a similar one from a different organization.
<i>To evaluate</i>	The measure allows us to evaluate, judge, compare, track the progress, verify, control.
<i>The results</i>	The results, also called effects or impacts, are available immediately or in long term and are social, economic, environmental, etc... Impact results usually stem from the strategic plan, but can also be found in an action plan. The results may also have a more operational nature when they represent the efforts required to provide benefits.
<i>The use of resources</i>	In a context of managing by results, services provided are based on expectations expressed by citizens, but also on respect for resources. Indicators make possible to monitor revenues and expenditures, to know whether budgets are met and resource management is efficient.
<i>The progress of work</i>	As the results of an organization are not all quantifiable, the measure can also be information, a progress report on implementation or degree development of a strategy.

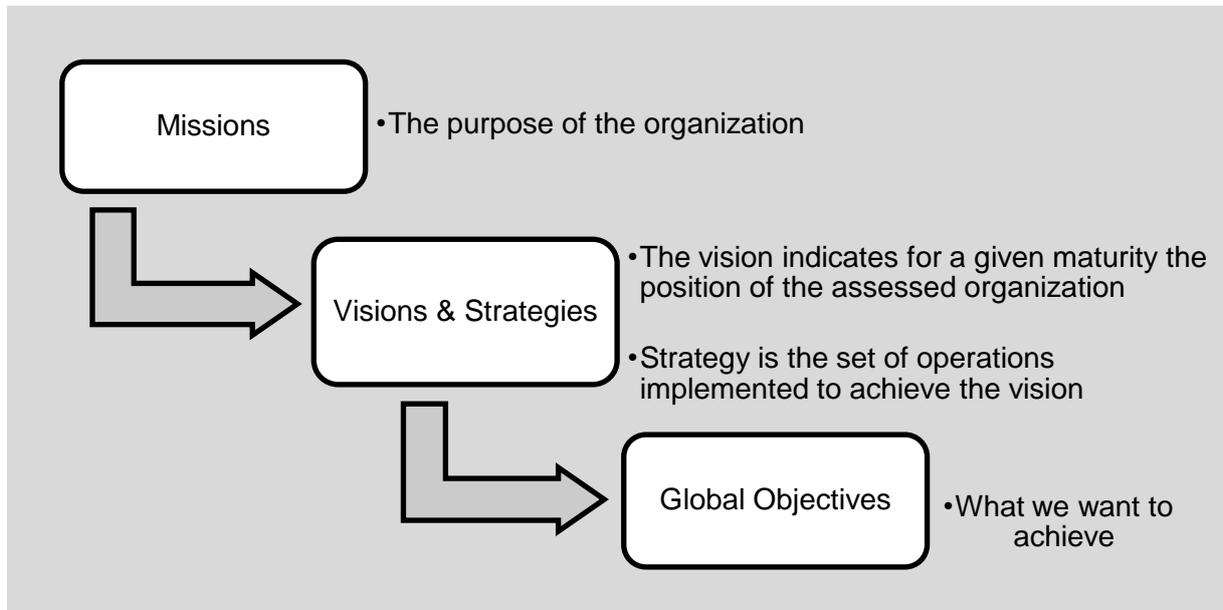
4.1.2 Choice of the objectives

The objective expresses the intention, commitment, what we want to achieve or produce, in short the goal pursued by the services and public health plans. These objectives are linked to strategies previously laid down by central governments attached to the Ministry of Health that can be spread over several years. These strategies are linked to the vision adopted by the Ministry of Health, related to its public health mission.

The wording of the objective can be very precise or sometimes more general. In the case of precise objectives, the intention is clearly stated (increase, decrease, maintain, improve) and mentions the operator on which we want to act with the target to reach. In more general

definitions, the objective expresses the intention but does not explicitly include the indicator and the target. It is always best to define a more general goal when the desired outcome is multifaceted which requires several indicators, meaning different targets.

Figure 1: Proposed framework for defining the objectives [7]



4.1.3 Choice of the indicators

The indicator is more accurate and often more restrictive than the objective, because it describes the type of measurement (number, ratio, percentage) and the various elements to be considered in the calculation or the follow up. As the indicator measures only one aspect or one dimension of a phenomenon, there may be several indicators to measure the achievement of a common goal. As reported in Figure 4, there are two different approaches when defining indicators; the first one is to start by choosing an indicator and afterward the associated objectives. This method is highly pragmatic but limits the vision of what we really want to change. The second technique is to set up an indicator relative to an objective which results in a better answer to the problematic.

Table 4: Characteristics of a good indicator [8] [9] [10]

Step	Characteristics	Definition
Design of the indicator	Validity	The extent to which any measuring instrument, device, or test measures what it purports to measure
	reproducibility	To what extent the indicator would be the same if the method by which it was produced was re-applied?
	Comparability	How the indicator could be compared with indicators developed by other organization
Implementation of the indicator	acceptability	How the indicator is acceptable for people being evaluated and evaluators?
	feasibility	To what extent valid data, reliable and consistent can be collected?
	Sensitivity	How well the measurement responds to the stimulus. If sensitivity is too low, opportunities for response will be missed; if too high, false alarms will result.
	usability	The indicator has a shared and common interpretation, its definition is unique and the limits are known.

4.1.4 Target fixation



The target expresses the level, the "height" of the expected result of a measurement unit, the "standard" of the selected indicator and is the last stage in the process of establishing indicators. The target gives a meaning to the desired variation and, in the case of a quantitative indicator, can be presented as a percentage, a number or a ratio. The measurement of the indicator is used to illustrate the obtained result at regular intervals. The comparison between the obtained and the expected results is used to assess the degree of achievement of the target during a given period or the importance of the difference (positive, zero or negative) between the two.



Once the indicator is developed, the next step is to fix the target. The target enables to anticipate the level of results we want to achieve after a certain period. The determination of the target depends on several factors which are both objective and subjective. We usually identify 4 useful steps in fixing target [15]. First the initial measure of the situation often represents the benchmark with which the results are going to be compared all along the reference period. When the data are available, the initial measure is easy to obtain but in the case of a new indicator (2 new indicators in ARS CPOM) test are needed to verify the validity and viability at least for a few months, ideally a full year. It is very important to determine if the current situation is normal and if it has been exposed to factors likely to generate statistical bias. The next step concerns the methodological approach for fixing target. When the data are available, the method could be based on historical evolution of the previous years. For new indicators, the task is more theoretical and the projection more unpredictable. Sometimes, it could be a solution to use the indicator a few months to a year to have real valid data to determine the annual or pluriannual target later on. It is very important that the level of the target we are fixing stays realistic, that is to say neither too cautious nor too ambitious. In the particular case of standardized indicator, the target could be fixed using normalized value (e.g. mean or median rate from OECD countries). The determination of acceptable intervals is the last stage in fixing the target. Even if the target is realistic and all the possible efforts are deployed to reach it, it is important to consider the possible behavior of the indicator so that the minister can take the necessary actions to modify it.

4.1.5 The use of indicators

The information plays a crucial role on the capacity of a health system to guarantee a significant improvement in health of the population. Figure 5 shows that indicators can be used in several ways to: show the mapping of public health, monitor the health care security, ensure hierarchical control and also to encourage the health system to take responsibilities toward the public. Beside these efforts, there is the role of performance measurement in the orientation of the decisions taken by the various actors to steer the health system toward better results. The issue here is not to debate on the utility of the performance measurement but to determine the best ways to summarize and present this information and to integrate them with success in the governance structures. The increasing use of indicators to multiple purposes implies a rationalization of the management of these essential instruments to

measure results and the implantation of tools to ensure coherence between the development of such indicators and the real needs of an organization.

Table 5: The use of indicators

Use of indicators	
Current and continuing usage:	To support local program management and manage service delivery
	To inform surveillance activities and policy development
Proposed uses within performance management system:	Public reporting: To demonstrate movement on public health priorities
	ARS contract: To demonstrate clear movement on government priorities
	Monitoring/Risk assessment: To proactively protect the health of the public

The concept of dashboards has been subject to many publications [28] [29] [30] in several sectors and will not be studied in details here because of the “size” of this topic. It is nevertheless important to consider its key role for the follow up of results and the performance analysis from the ministry.

4.2 Results from data collection and interviews

The results presented in this part are based on data collection and interviews and explain the process used when the indicators were defined. The characteristics of the 11 indicators of the DGS in the scope of public health, health promotion and health security are also provided. Finally, the dashboard realized during the internship to monitor these indicators is presented.

4.2.1 Process used to select Objectives

Several central administrations of the Ministry of Health were involved in the group work for the definition of the objectives and indicators with a special mission from the General

Inspectorate of Social Affairs (IGAS)¹. This joint work has led to the selection of three national priorities. These national priorities are broad and cover a wide spectrum. They are then detailed in the national objectives.

- Improving life expectancy in good health
- Promoting equity in Health
- Developing a quality health system, accessible and efficient

When the group work in charge of setting up the indicators was commissioned, they identified a need to link with existing objectives. The first step was to ensure the proper coordination between the intended objectives for the ARS and objectives of the current health system in a perspective of continuity with the existing objectives. This stage was to ensure integration of the current relevant objectives for the ARS in a concern of monitoring the pre-existing objectives by indicators already defined and used. Three sources of objectives already in use in the health system were identified for a total of 89 objectives.

Table 6: sources of the objectives [11]

Institution	Source	Objectives
State	7 programs LOLF ²	35 objectives
National health insurance	2 “quality and efficiency” programmes (PLFSS ³ 2009)	38 objectives
Regional Hospitalisation Agency (ARH) ⁴	6 national themes	16 objectives

The final selection was obtained by consensus (in its modern definition) in the work group and led to the selection of nine objectives. Among them, four referred to public health, health surveillance or health promotion which are the three main priorities of the DGS described above in Table 1. (List of all selected objectives in appendix)

1 The General Inspectorate of Social Affairs (IGAS) is an inter-ministerial service in charge of control, audit and evaluation of social policies to enlighten the public decision making.

2 LOLF: « Loi Organique relative aux Lois de Finances » is the new legislation governing public finances

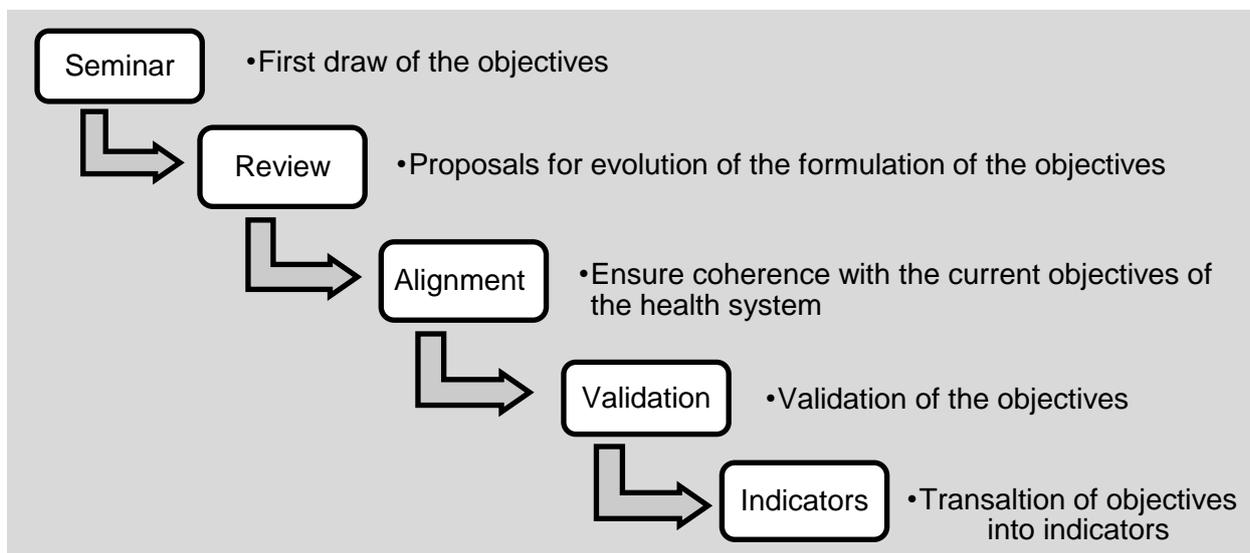
3 PLFSS : « Le projet de loi de financement de la sécurité sociale » is the new law project for financing the national health insurance.

4 ARH: former regional organization of hospital management which has been integrated to the ARS.

4.2.2 Process Used to Select Indicators

The process used in the case of the ARS follows a logic frame which can be identified to the second approach detailed in the paragraph 4.1.3 (First definition of objectives and then indicators). The same process as for the objectives was followed, the first step was to make the list of existing indicators for the proposed objectives. The next work was to ensure the relevance of indicators or to investigate the needs and to create new ones. Another solution was also to modify the existing ones. After concertation, 31 indicators and 10 management indicators were selected. The number of indicators was intentionally limited, trying to have a homogeneous distribution between the directions of the central government (especially DGS / DGOS)

Figure 2: 5 steps process to formalize objectives and their translation into indicators [11]



4.2.3 Specific indicators

After the main indicators had been defined, they were submitted to the ARS for their validation. In some cases, regional specificities have required the construction of specific indicators. These indicators were proposed by the ARS to the group work for evaluation. In all the demands, specific indicators concerned the modification of an existing one. Among the 26 regions, 11 asked for a modification. With a total of 19 specific indicators, 9 are for a modification of the indicators related to drinking water (indicator number 9: "Percentage of water units supplying drinking water to over 5000 people with recurring exceedances of quality") The modification was essentially the same, on the number of people the water units were supplying. The number of 5000 appears to be debated a lot and was fixed by the European commission. The special situation in the Reunion and Mayotte Islands which are

supervised by the Indian Ocean ARS requires them to add 5 specific indicators to the CPOM contract (4 in the scope of the DGS). They developed an indicator for the surveillance of a specific cancer because of the high prevalence in this area. The specific plans in the Islands (cyclone, arboviroses) also needed a specific indicator to monitor them. The rate of maternal and child mortality is also specially monitored as well as the obesity among the children [12].

4.2.4 Fixation of the targets

For the ARS indicators, the targets were fixed by the group work using mainly projections on the next years. For example the target in the indicator related to suicide rate was defined between the national and the regional mean in projection on the following year. Nevertheless the mean is a measure that has to be considered with caution because it does not take into account the population of the region which in our case is a sensitive point. For each region, targets have been defined according to their particular situation and history. The work results in 26 different targets for each indicator. It was done in coordination with sub-division within the DGS. For example, the targets of the indicator related to the percentage of water units supplying drinking water to over 5.000 people with recurring exceedances of quality have been calculated with the help of the department in charge of the prevention of risks related to environment and food.

4.2.5 Indicator Frame

All indicators have technical worksheets which were put together in order to allow comparison and analysis. The worksheets are highly detailed and each of them has the same framework. Three main specifications are available: general information, detailed information and management rules. The general information part includes descriptive information which records all the relevant elements related to the parameters of the indicator. The second part aims to validate the indicator regarding the reliability of the data and present the calculi formula. The last part provides information on the data source and data provider.

Table 7: Indicator frame [13]

Indicator Number	
Description	
General information	Date of last update
	Version
	National priority
	Objective
	Responsible Administration
	Definition of the indicator
	Specific follow-up (population, types of structures, ...)
	Measurement unit
	Geographical mesh
	Frequency of availability of the data (annual, biannual ...)
	Pertinence of the indicator
	Desired evolution of the indicator
	Detailed information
D1 Label data item 1	
D1 definition	
D1 Scope	
D1 Data source	
D1 Time period for measuring the data	
D1 Frequency of updating the data	
D2 Label data item 2	
D2 definition	
D2 Scope	
D2 data Source	
D2 Time period for measuring the data	
D2 Frequency of updating the data	
Comments and recommendations of use	
Management rules	
	Desired detail mesh
	Evolution criteria : green/orange/red
	Data provider
	Date of supply of updated data

4.2.6 Data Sources

The following table presents the data source and some information about the data provider and the date of supply of the data. The data are extracted from the indicator technical worksheet presented in the previous chapter

Table 8: Data source and data delivery [13]

Indicator	Frequency of availability of the data	Provider of updated data	Date of supply of updated data	Data received in 2011
1	<i>Annual</i>	<i>DGS (Inserm)</i>	<i>2015</i>	<i>No</i>
2	<i>Annual</i>	<i>DGS (Inserm)</i>	<i>2015</i>	<i>No</i>
3	<i>Triennial</i>	<i>DGS (DREES)</i>	<i>2015</i>	<i>No</i>
4	<i>Triennial</i>	<i>DGS (DREES)</i>	<i>2015</i>	<i>No</i>
5	<i>Annual</i>	<i>DGS (InVS)</i>	<i>2011 (2nd sem)</i>	<i>Yes</i>
6	<i>Annual</i>	<i>DGS (InVS)</i>	<i>2011(2nd sem)</i>	<i>Yes</i>
7	<i>Annual</i>	<i>DREES/InVS</i>	<i>2015 (2nd sem)</i>	<i>No</i>
8	<i>Annual</i>	<i>ARS</i>	<i>2011 (2nd sem)</i>	<i>Yes</i>
9	<i>Annual</i>	<i>ARS</i>	<i>2011 (1st sem)</i>	<i>Yes</i>
10	<i>Annual</i>	<i>ARS</i>	<i>2011 (1st sem)</i>	<i>Yes</i>
11	<i>Annual</i>	<i>ARS</i>	<i>2011 (1st sem)</i>	<i>Yes</i>

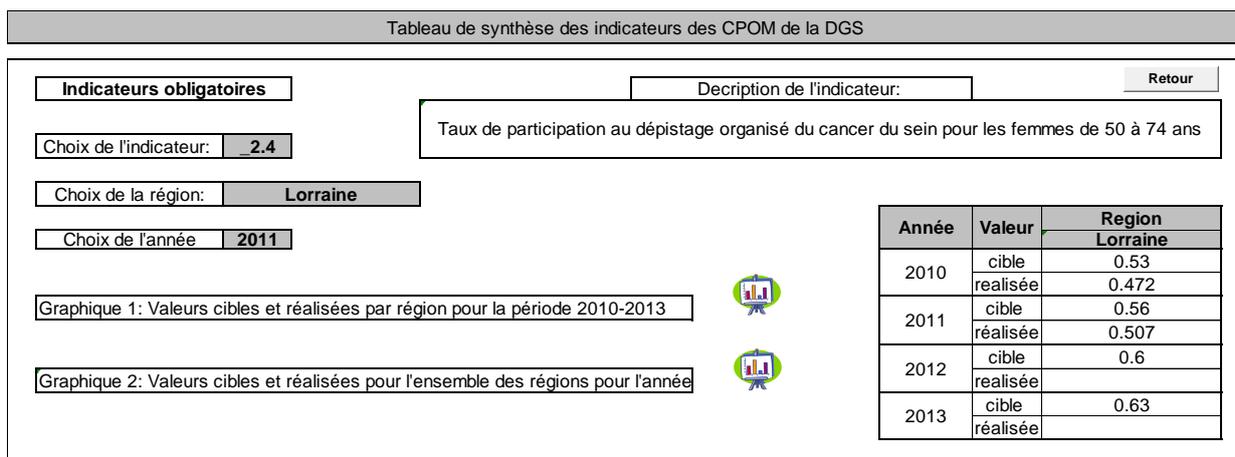
As we can see in this table 8, among the 11 indicators written in the agreement contract, only 6 of them had measurement results for 2011. The remaining five will not have results before 2015. The Indicator number 1 and 2 related to avoidable mortality will be available in 2015 because the data are complex to analyze and require few years to be publicly released. As described in the frequency of availability column, measurement of indicators number 3 and 4 related to obesity among children are available every three years. The high price of the study explains the triennial measurement cycle. For indicator number 7, the same reasons as for number 3 and 4 are mentioned. This lack of data for 5 indicators has led to evaluate the plans and programs conducted by the ARS. The follow up of the indicators will be only based on qualitative results communicated from the ARS to the ministry via a shared document.

4.2.7 Dashboard

The document developed by the ministry of social affairs called “CPOM monitoring 2011” is how its title suggests a document to collect data from the ARS (See appendix 2). The document is shared via an information system: Microsoft SharePoint. This document was the basis of the mission we had to carry. This document is independently available for each region so it didn’t allow making comparison between the regions.

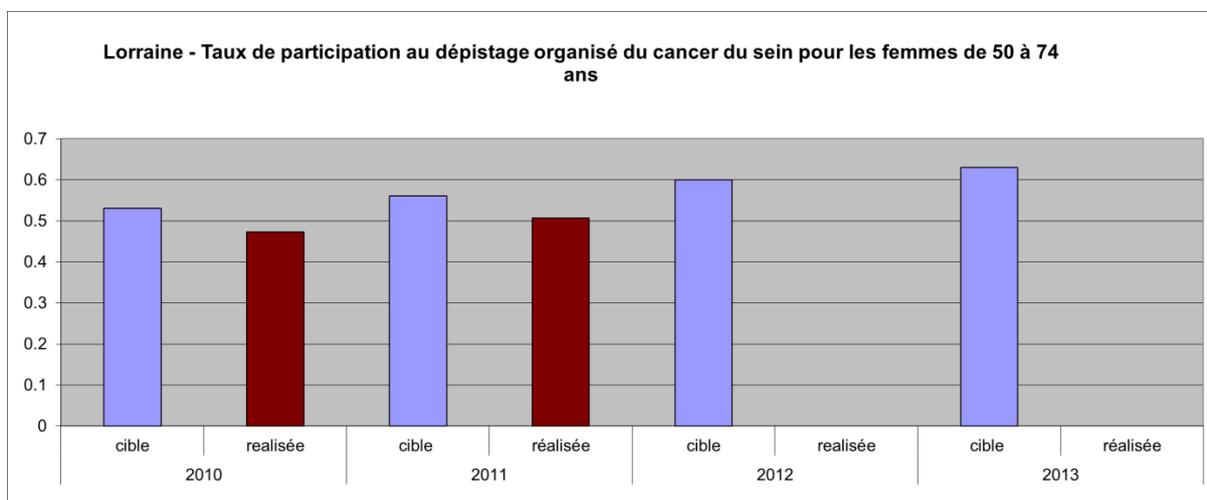
The result of the work is the conception of a dashboard presenting the 11 indicators plus the specific indicators for the regions concerned including graphics. The idea was to have a detailed graphic for each region with a small table summarizing the data (Figures 3 and 4). The data presented are the targets (“cible”) in blue and the 2011 values (“réalisée”) in red.

Figure 3: Dashboard presenting for a given region and indicator, the associated measurements



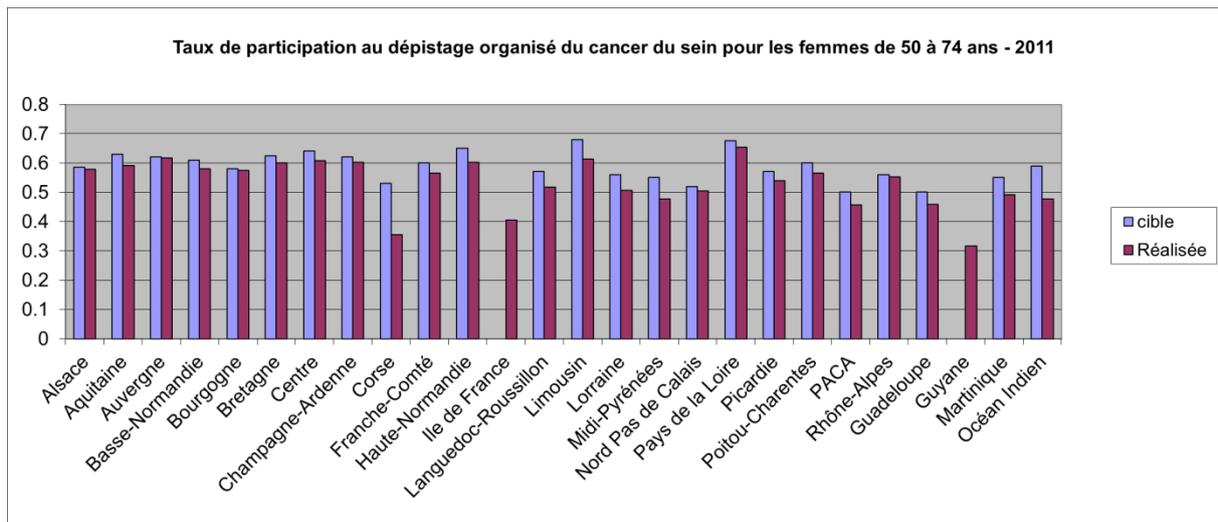
For instance to illustrate, Figure 4 shows that the actual participation rate for breast cancer prevention program for women aged from 50 to 74yrs to rates in 2010 and 2011 are below the targeted ones. These figures being available in each region for the same indicator, therefore, between regions comparisons are made.

Figure 4: Graphics issued from the dashboard presenting the data of the indicator for a given region



Then another kind of graphic was included to allow comparison between the 26 regions for each indicator (Figure 5). The data used for the dashboard are extracted from the dashboard developed by the SGMAS.

Figure 5: Graphics issued from the dashboard presenting the data of the indicator for all regions



The SGMAS is developing a document for presenting all indicator data in a comparative way. This document will be a consolidation of the data and should be available for the exercise 2012. It will have some common functions with the dashboard developed during the internship. Because 2011 is the first full year of activity of the ARS (creation in April 2010), all the mechanisms necessary to monitor them have not been implemented yet. The national consolidation will be a major tool, useful for several reasons. First, it will enable comparison between regions even if we don't talk about benchmarking, it could be useful to compare the results of two similar regions. Second, it will give a global view of the situation of a region in all domains (public health, environmental health, health delivery...), compared to the dashboard developed during the internship which only focuses on the scope of actions of the DGS. This information will be the tool for decision makers and is a vital step in the process of assessing performance. In the responsibilities associated with performance measurement, the development of adequate methods of consolidation and presentation of data is a key function of management functions which shall in particular:

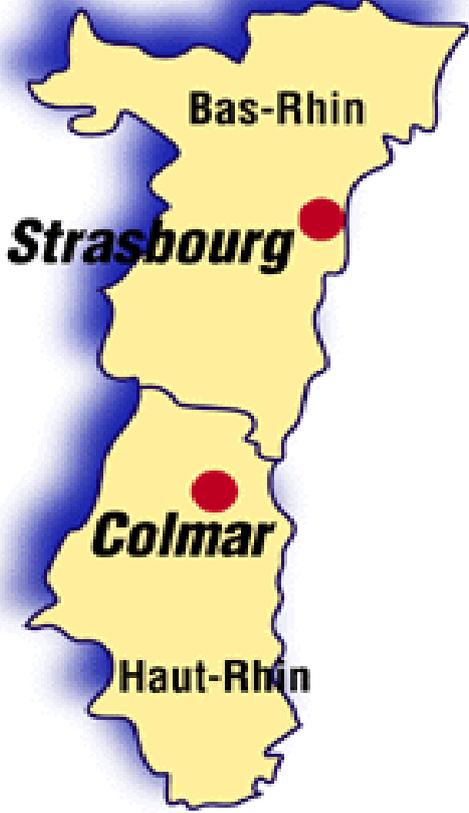
- Ensure that appropriate information has an impact on all actors
- Mandating the publication of summarized information
- Ensure comparability and consistency

To respect these criteria, the consolidation document will have to be shared with the ARS and all the central directions of the ministry.

4.2.8 Regional worksheet synthesis

The regional synthesis worksheets are work documents analyzing the current situation of each region concerning the 11 indicators related to public health, health surveillance and health promotion (because developed by the DGS). They also give a general appreciation on these indicators. These documents are, once completed, sent to the ARS to inform them but also to take in consideration their feedback and modifications. This synthesis work is indispensable to appreciate certain indicators which do not have data in 2011. In this case, the actions taken by the ARS are considered as the basis for the evaluation of the indicators.

Figure 6: Regional worksheet synthesis

Préparation CNP-CPOM : ARS d'Alsace			
2011			
ARS rattachée à l'ARS de zone Est : Lorraine			
General information on the region		Number of departments : 2	
I – Demography			
	Alsace		France Extremes values or national average
Population	<u>1.847</u> <u>Mhab.</u>		
Under age 20 in 2008	24,6%		24,9%
Over 60 years in 2008	20,0%		21,7%
Population Density (2009)	223		978/3
Unemployment rate (%) (2009)	8,8%		10%
"minimum income for integration" (RMI) recipients (2009)	1,7%		1,6%
Total fertility rate (%: 2007)	181		197
Abortions (per 1000 women aged 15 to 49 years)	11,8		15,2

2011 follow up of CPOM Public Health indicators:

1.1 and 1.2: avoidable premature mortality (M & W) and suicide mortality:

2.1 & 2.2: Overweight and obesity:

2.3 & 2.4: organized cancer screenings:

2.5: MMR⁵:

3.1: Plans:

3.2 & 4.2: Environmental Health

3.2: Drinking water:

4.2: substandard housing:

4.3: Local health contract

Overall assessment on the part of the Public Health CPOM:

5 Discussion

This report proposed an original study of the definition and the use of indicators by ARS and DGS defined under the contract 2010-2013 and the first of this type in France. The work made during our internship provides insights of interest in terms of indicator definitions and process implementation in line with studies conducted in other countries [9] [16] [23] [25]. As regards to the use of indicators by ARS and DGS, our study showed that it is still a work in progress as far as, no common tool was implemented before we implemented the dashboard. Therefore, our findings lead to question and discuss the reasons why such situation occurred, while the promising indicators were introduced.

With the knowledge we were able to gather during our internship, the interviews conducted and the methodology available in international articles relating to "indicator"; this section will address the main issues that indicators introduction and use or no use may rise. It is worth mentioning that we personally did not participate into the selection process so we might not be aware of other factors which could have influenced their choice. This last section of our paper will draw up the current state of ARS indicators focusing on both positive and negative aspects.

⁵ MMR: The MMR vaccine is an immunization shot against measles, mumps, and rubella

Beforehand, we advise caution when interpreting the results as our study has several limitations. First the number of interviews carried out is small, even if we collected on daily basis information from informal people discussions. Second, as said before in this report we collected data from the Regions, meaning second hand ones, we could not control the sources and some data were missing. Moreover, due to time constraints and because this was part of our internship we were not able to conduct ARS interviews. This could be plan in a later stage.

The selection process which lasted a year and half and was conducted by health professionals led to the selection of the list of indicators presented above. A whole range of characteristics can be measured and translated into an indicator. Choosing the relevant elements was not an easy task and some compromises had to be made.

Limiting the number of indicators was one of the first objectives of the group work and can be considered as strength and weakness, in the same time. The risk of being flooded by information is avoided. Each indicator has a unique mission which answers to a problematic. This relatively small number makes the information processing easier and provides an instant overview of a situation. But reducing the range of measurement has also a limit in precision. For instance, can avoidable mortality be reflected by two indicators while 50 different factors could be measured? The answer is not binary; indeed they reflect the situation in a region but they also may not show important criteria of avoidable mortality. Nevertheless in the context of measuring the performance in a regional agency, limiting the number of indicators may be the only possible way to have a complete overview of the situation and the best way to monitor it, in our opinion.

The all regions are different in size, population, geography which makes difficult to take into account the regional parameters when implementing national indicators. The answer found by the group work was to ask the ARS's opinions on the indicators and to propose new ones / modify the existing ones according to their needs. This solution is a great opportunity to improve the accuracy of the indicators and also, to a certain point, give the regions a greater involvement. However, some of the indicators included in the selections have raised questions of their definition; for example the indicator of avoidable mortality which is a public health priority in France. Indeed, deaths under the age of 65 represent 20% of total annual

deaths. Tumor and violent deaths are the most common causes of death. In the international literature [31], we find two different definitions for the indicator “avoidable mortality” which implies caution in its use. First, the avoidable mortality related to "risk behaviors" which depends on individual behavior (e.g. some cancers, cirrhosis, traffic accidents, accidental falls, suicide, AIDS...). The second description is the mortality rate linked to the "health care system" that requires better support for screening or treatment such as ischemic heart disease, cerebrovascular disease, some cancers and flu. The indicator mentioned in the contract with the ARS is based on “Deaths before the age of 65 that could have been "avoided" by reducing risky behavior”. The issue facing by the ARS is that they may influence the use of health services while the indicator is linked to people behaviors. Furthermore, the effects of actions, on death causes, carried out today via health promotion will be observable in 15 to 25 years while the indicators are based on an annual follow-up. What is measured here is a death rate for 100,000 inhabitants (male/female) before the age of 65 years.

The issue is not to question the pertinence of the indicator but to wonder why an indicator measuring the effect of policies carried out several years ago takes part to the process of assessing the performance of a given organization. This indicator is certainly a good measure to show the health status of a population and is indispensable to monitor the effect of health prevention and be sensible to the areas to improve in terms of prevention. Nevertheless we can wonder if this is the best way to assessing the performance of the ARS, knowing, according to the Table 8, that the data will be available in 2015. What is currently done is the follow-up of plans and programs carried out by the ARS. The appreciation of the indicator is based on this plans which reflect the efforts carried out in health prevention. To study the action plans is indeed one of the best ways to assess the work done in the region and is rightful to our opinion but in this case, the question is why such an indicator to follow up plans has not been developed yet.

A second problem we observed is the availability of data which concerns several indicators. As mentioned in Table 8, only 5 out of the 11 indicators under supervision of the DGS will be measured in 2015. This occurs for several reasons. Some indicators are based on a triennial survey and consequently will not have any data until 2015. Budget cuts are also mentioned as a reason for the absence of data provision such for obesity and vaccination. For the indicators without data in 2015, the follow up is based on the same process as for the avoidable mortality indicator: follow up of plans and programs. Once again, as explained

below, this process appears to be natural in the evaluation but questions the definition of the indicators and even further the fixation of target for these indicators.

The targets to be met by a health system represent a particular means to measure the performance. They applied to public health policies and come from a business model with the principle that once the objectives are clearly defined, more organized and efficient efforts will be made to meet them. Some of the indicators presented are based on this postulate because of the availability of data. One of the first naive questions that come to mind could be expressed as follows: "Why choose indicators and defined targets if it is known that there will be no measuring or result of measuring before 2015?"

The question is more subtle than it sounds. Indeed, it raises the fundamental question of the purpose of these indicators if we can't measure them. The answer is complex and several factors were involved, factors we do not have access to as they were related to the selection of these indicators in which we did not participate. An attempt to answer this question is to consider the indicators as the current national priorities of the health ministry. In this context, the indicators are here to orientate the ARS towards some topics. They seem to reflect the subjects on which the ministry wanted to develop a particular effort. They appear to be more related to the guidance than to the monitoring of their performance.

The second question that we could ask relates to the definition of targets. "Knowing that the data will not be available for some indicators, why define targets on them?" To define targets to meet is an incentive scheme which aims to develop efforts and give people intermediary checkpoints, particularly interesting in the case of a region which wants to drive a special program to measure its population on the basis of an indicator. The target will allow the region to compare its results and to draw conclusion about its situation on the given topic.

Beside these aspects of the definition of the indicators and their consequences, it is also important to consider the information processing on a national level. This last stage, when building indicators, shouldn't be set aside because it finalizes the process and brings a base for analysis. It is crucial for decision makers to establish an effective dashboard with a proper presentation in full transparency. Besides allowing analysis, it gives a sense to the indicators and puts in light the problems related to their use. The dashboard with a national

consolidation of the indicators and plans for the 26 ARS is still in development which will be beneficial for both ministries and ARS. It has been shown that the effectiveness of different actors in the health system was improved after the evaluation of their performance, particularly in the area of care even if it remains valid for other areas. Although the benchmarking strategy is not a part of the ARS's evaluation, a document presenting comparative information between the regions (the national consolidation dashboard) could give more responsibilities to the ARS and improve their performance. Another perspective can be found in order to improve the ARS' performance. According to literature review, the publication of information related to the performance could have three main objectives regarding the ARS: 1) stimulating quality improvement; 2) promoting a more general accountability to the public from the agencies; 3) helping regions to be aware of their situation regarding the indicators. So far, the publication of a national report has not been planned. Some reports exist but they are relative to a certain kind of indicators. For example the report from the IGAS "The setting up of environmental health policy by the ARS" gives some recommendations about the 3 indicators related to environmental health. An annual publication of a report of their performance would be of benefit for the ministries and ARS which, for reminder, have for principal mission the improvement of the health of the population.

Conclusions and perspectives

The French health system is facing a major reorganization which requires the creation of new monitoring processes. The complexity and number of facets of the health system makes the task difficult. The monitoring of ARS's indicators is in an early stage, 2011 being the first year of full exercise. The process implemented shows a good efficiency in the monitoring of actions taken by the ARS on a regional level. The follow up of indicators is also well established with an efficient communication between regions and the ministry even if we regret the lack of data for some indicators. The efficacy of a monitoring system depends of the quality of its information system. In their functioning the ARS are facing several independent information systems which have their qualities and defaults. Two are related to funding (resource allocation and accounting), another one is linked to the plans and programs carried out and finally, the environmental health also has his own system too. In the case of indicators, the system of shared tables has maybe reached its limits and taking example on the information systems already implemented, the institution of a dedicated system maybe using a real database might be a significant improvement in the monitoring process.

Bibliography

- [1] Report on the creation of Regional Health Agencies ARS – Philippe Ritter - *January 2008*
- [2] Law n° 2009-879 issued in July 2009 on Hospitals, Patients, Health, and Territories
- [3] ARS website – www.ars.sante.fr
- [4] ARS press publication *April 2010* – www.ars.sante.fr
- [5] ARS' contract – Means and objectives contract – *February 2011*
- [6] An Evaluation of the Use of Performance Measures in Health - Care Cheryl L. Damberg, Melony E. Sorbero, Susan L. Lovejoy, Katharine Lauderdale, Samuel Wertheimer, Amber Smith, Daniel Waxman, Christopher Schnyer - *2011*
- [7] A framework for assessing the performance of health systems - Christopher J.L. Murray¹ & Julio Frenk² - Bulletin of the World Health Organization, *2000*
- [8] Indicateurs et Tableau de bord: Mission, vision, stratégie - <http://www.formateur.ca/indicateurs-tableau-de-bord-mission-vision-strategie-1de5>
- [9] The Good Indicators Guide: Understanding how to use and choose indicators - David Pencheon - NHS
- [10] Characteristics of a Good Indicator – www.med.navi.mil
- [11] Mesure des performances pour l'amélioration des systèmes de santé : expériences, défis et perspectives - Peter C. Smith, Elias Mossialos and Irene Papanicolas – OMS – *2008*
- [12] Ministry of health - DGS – Comex seminar – *2010*
- [13] Ministry of Social Affairs – SGMAS – Indicator worksheet
- [14] Research methods used in developing and applying quality indicators in primary care - S M Campbell, J Braspenning, A Hutchinson, M Marshal – *2002*
- [15] Guide sur les indicateurs – Chantal d'auteil – Secrétariat national du trésor – *2003*
- [16] Performance Measurement for Health System Improvement Experiences, Challenges and Prospects - Peter C. Smith, Elias Mossialos, Irene Papanicolas and Sheila Leatherman – European observatory on Health systems and policies

- [17] La santé en France - HCSP – 2002
- [18] Decentralization in Healthcare – Richard B. Saltman, Vaida Bankauskaite, Karsten Vrangbaek - European observatory on Health systems and policies
- [19] Système d'information de Pilotage de la Performance, Programme Prévention et Sécurité Sanitaire, Liste des indicateurs et Fiches indicateurs M. Claude LEMAIRE, M. Guillermo BESCOS – Ministère de la santé 2009
- [20] La mise en œuvre par les agences régionales de santé des politiques de santé environnement - Béatrice BUGUET, Anne BURSTIN, Bertrand DEUMIE - Inspection générale des affaires sociales
- [20] Les indicateurs de performance en matière de politiques sociales : quel sens pour l'action publique » ? - Mireille Elbaum - OFCE - 2009
- [21] L'utilisation des indicateurs de la performance pour améliorer les systèmes de santé - Sheila Leatherman – OECD
- [21] The current state of performance measurement in health care - JEROD M. LOEB – International journal for Quality in Health Care 2004 volume 16
- [22] The Measurement of Health Care Performance - Bruce E. Spivey, MD and Walter J. McDonald, MD –
- [23] Performance measurement process – TRADE
- [24] Performance Measurement: Problems And Solutions – David M. Eddy - Health Affairs
- [25] OECD Environmental indicators: Development, measurement and use
- [26] Construction et utilisation des indicateurs dans le domaine de la santé principes généraux - Mai 2002
- [27] Réforme de la gouvernance régionale : quel impact sur le pilotage national ? - Cécile Courreges - Directrice générale de l'ARS de Bourgogne - adsp n° 74 mars 2011
- [28] *élaborer les tableaux de bord – ministère des finances*
- [29] *élaborer les tableaux de bord – Alain Fernandez - <http://www.le-perfologue.net/>*
- [30] *Real-Time Executive Dashboards and Virtual Instrumentation: Solutions for Health Care Systems*
- [31] Definition of avoidable mortality - Office for National Statistics - 2011

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Indicateur de performance ARS - CPOM

Mode de sélection des indicateurs

- Historique sur la création des indicateurs DRASS / DASS / ARH
- Quelle a été la méthodologie employée pour la sélection des indicateurs :
- Indicateurs déjà existant / création de nouveaux indicateurs
- Objectifs nationaux : méthodologie
- Quelles directions de l'administration générale étaient impliquées dans le processus d'élaboration des indicateurs ?
- Concertation avec les ARS ?
- Place du benchmarking dans la création des indicateurs?
- Comparaison avec d'autres pays ?
- Comité de révision des indicateurs ? Evolution des indicateurs ?
- Avec quels critères les cibles nationales ont été choisies?
- Utilisation de la moyenne nationale ?
- Pourquoi 4 indicateurs sont neutralisés ? (6.6 / 7.1 / 7.2 / 8.3)

Renseignement des indicateurs

- Indicateur de Veille et sécurité sanitaire (VSS) :
- Source des indicateurs : local/régional
- Renseignement annuel/bi/tri-annuel des indicateurs ?

Usage des l'indicateurs

- Comment assure-t-on le suivi des l'indicateurs ? A-t-il été prévu lors de la création des indicateurs ?
- Indicateurs 1.1/1.2/2.1/2.2 : Pas de données avant 2015. Pourquoi avoir choisit ces indicateurs si les données ne sont pas disponible avant 2015 -> impliquer les ARS sur les priorités nationales ?
- Quel est l'impact des indicateurs sur les ARS ?

Appendix 2: Dashboard SGMAS



Tableau de suivi des CPOM - Suivi quantitatif des indicateurs - ARS Alsace

n°	Référént interne ARS	Valeur initiale		Tendance	Cible				Valeurs réalisées			Appréciation de la tendance	Historique de l'évolution	Analyse de l'ARS	
		Valeur	Année		2010	2011	2012	2013	2009	2010	2011				Détail
en bonne santé															
Réduire la mortalité prématurée évitable															
1.1.H	DPPS S TAYMI	81,3	2005/2007	↘		70,3									Pas d'appréciation car les valeurs 2011 ne seront pas disponibles avant 2015
1.1.F	DPPS S TAYMI	24,6	2005/2007	↘		23,1									Pas d'appréciation car les valeurs 2011 ne seront pas disponibles avant 2015
1.2.H	DPPS S TAYMI	20,0	2005/2007	↘		17,9									Pas d'appréciation car les valeurs 2011 ne seront pas disponibles avant 2015
1.2.F	DPPS S TAYMI	7,0	2005/2007	↘		6,6									Pas d'appréciation car les valeurs 2011 ne seront pas disponibles avant 2015
Développer la promotion de la santé et la prévention des maladies															
2.1	DPPS P FERRE	4,7%	2005/2006	↘	4,1%	4,0%	4,0%	3,9%							Pas d'appréciation car les valeurs 2011 ne seront pas disponibles avant 2015
2.2	DPPS P FERRE	15,3%	2005/2006	↘	15,3%	14,8%	14,3%	14,0%							Pas d'appréciation car les valeurs 2011 ne seront pas disponibles avant 2015
2.3	DPPS S FAVRET	44,7%	2009	↗	46,0%	47,4%	48,7%	50,0%		43,1%		Voir données par département			Taux prévisionnel 2011 en baisse: 40,5%
2.4	DPPS S FAVRET	56,6%	2009	↗	57,0%	58,5%	61,0%	65,0%	56,6%	58,1%		Voir données par département			Taux prévisionnel 2011 satisfaisant: 60%. Cibles atteintes.
2.5.1	DPPS MC DOLEANS			↗	2	2	2	2							
2.5.2	DPPS MC DOLEANS	89,0%	2009	↗	90,0%	92,0%	93,0%	95,0%							Commentaire: Les données de déclarations des rougeoles en Alsace confirment l'épidémie nationale depuis 2008 (2008: 9 cas, 2010: 98 cas; 1er trimestre 2011: 118 cas)
Renforcer l'efficacité du dispositif de veille et de sécurité sanitaires															
3.1	DPPS T MORITZ	100,0%		↗	100,0%	100,0%	n/a	n/a		100,0%		Saisir données par département par plan			La déclinaison départementale du plan NRBC doit être finalisée pour la fin du 1er semestre 2012.