17

Performance Measurement Features of the Italian Regional Healthcare Systems: Differences and Similarities

Milena Vainieri and Sabina Nuti
Istituto di Management - Laboratorio Management & Sanità,
Scuola Superiore Sant'Anna, Pisa
Italy

1. Introduction

A growing number of factors among which rising costs, technological advancements, aging population, health market failure and medical errors, led many industrialized countries to manage their health services and goals through performance measurement (Arah et al, 2003; Kelley & Hurst., 2006; Smith, 2002). In this context it became a commonplace for countries to formally assess the performance of their healthcare system (Mc Loughlin et al., 2001).
Since the 1980s the introduction of "New Public Management" (NPM) principles has promoted a number of reforms in order to drive a more efficient, effective and accountable public sector (Hood, 1995a; Lapsley, 1999; Saltman et al. 2007). OECD countries have applied these principles in different ways with different emphasis (Hood 1995b).
Among the NPM principles, the one asking the public sector to adopt more explicit and measurable standards of performance measurement, has motivated countries to create different performance measurement systems (PMS).
In the Italian health sector, the development of PMS can be traced back to the 90s reforms that introduced managerial tools and devolved the organization and assessment of healthcare services to Regions. This devolution, enforced by the recent federalist reform of 2009, has led Regions to shape their own organizational structures and relationships among health system actors (Censis, 2008; Formez, 2007). As a consequence of these reforms, Italy has now 21 Regional Health Systems with significant differences from each other.
On the basis of these considerations the Italian health sector provides with an interesting scenario in order to detect and analyze the differences and similarities in PMS adopted by the Regional governments.
This chapter attempts to provide a cross sectional analysis of the Italian Regional PMS characteristics using evidences of an empirical study carried out in 2008-2009.

2. Theoretical frameworks

As a consequence of NPM reforms, especially those concerning PMS, academics and international organizations such as the World Health Organization (WHO) and the Organization for Economic Cooperation and Development (OECD) developed conceptual frameworks and models in order to help countries in building effective tools (Arah et al., 2006; Kelley et al., 2006; Murray & Evans, 2003; Smith, 2002; Veillard et al., 2005).

Both WHO and OECD based their frameworks on three main goals of health systems: (a) health improvement and outcomes; (b) responsiveness and access; and (c) assuring fairness of financial contribution. (Arah et al 2003).
These organizations declined these goals into four dimensions of performance: (a) health improvement/outcomes (b) responsiveness (c) equity, (d) efficiency.
Using these four dimensions, Hurst & Jee Hughes (2001) compared PMS adopted by a group of countries. The study highlights that countries do not covered all dimensions moreover often common dimensions are drill down differently.
On the basis of this evidence a first aim of this paper is to map the differences and similarities of IRHSs regarding the dimensions of performance monitored by Regional top managers and/or policy makers.
Another burning topic related to PMS in healthcare is the use of pay for performance mechanism as a governance tool (Van Herck et al 2010, Mannion & Davies 2008).
It is recognized that management tools should be managed in a coordinated way, especially the linkages between rewarding system (one of the two perspective of the pay for performance) and budgeting (Flamholtz et al., 1985; Ouchi, 1979). The connection between them is a crucial factor that can determine the effectiveness of PMS at the organizational level. To this extent it appears worthy to analyze the differences in the connection between PMSs and the rewarding system.
Finally another important topic related to PMS is benchmarking. Arah et al (2003) pointed out that a group of countries, that adopted a national PMS in health care, uses benchmarking as a mechanism to drive change in terms of improvement. In this perspective benchmarking is applied in order to gather information which can help the organization to improve its performance (Watson, 1993).
Although benchmarking gained growing relevance in health PMS at several levels, from international to organizational level (Johnston, 2004; NHS executive, 1999; Pink et al,2001; Nuti et al. 2009), in the Italian health sector it was not widespread yet at national or regional level (Banchieri, 2005).
In such circumstances a last issue that the empirical study aims to analyze regards differences and similarities in the attitude of Italian Regional Health System (IHRS) towards the use of benchmarking.

3. Research methods

The study, reported in this chapter, is based on semi-structured interviews carried out in the Italian Regional Health Systems (IRHSs); Regional documents (Regional law or Regional publications) and secondary data (i.e. Italian studies and reports).
Concerning interviews, all Regional health councillors and Regional heads of health departments were invited to participate in the study.
The collection of field data mainly took place between 2008 and 2009.
The interviews focused mainly on three topics:

- the description of tools used for measuring the performance of health services;
- the linkage between PMS and rewarding system;
- regional attitude towards benchmarking.

Nevertheless there was a questionnaire, interviews were conducted following an open approach so that interviewees could highlight their meanings and perception about the PMS and the field situation (Patton, 1990). Due to the open approach Regional interviewees were not forced to answer to all the items included in the questionnaire; as a consequence some items remained uncovered.

A total of 15 Regions (over 21) participated in the study. Some Regions did not participate in the study because of institutional reasons such as the election or judgmental inquiries. Taking into account these issues the answer rate was high and the responses were quite balanced across Italian Regions (see table 1).

Regions	Regions participating on the study	Area	Population	N° of Public Health Authorities	Financial deficit
Piedmont	Yes	North	4,352,828	21	Recovery Plan (2010)
Lombardy	Yes	North	9,545,441	45	
Bolzano	Yes	North	487,673	1	
Trento	Yes	North	507,030	1	
Veneto	Yes	North	4,773,554	23	
Friuli Venezia Giulia	Yes	North	1,212,602	9	
Liguria	Yes	North	1,607,878	8	Recovery Plan (deficit covered by other regional resources)
Tuscany	Yes	Centre	3,638,211	16	
Umbria	Yes	Centre	872,967	6	
Marche	Yes	Centre	1,536,098	5	
Campania	Yes	South	5,790,187	19	Recovery Plan
Apulia	Yes	South	4,069,869	10	Recovery Plan (2010)
Basilicata	Yes	South	591,338	4	
Sicily	Yes	South	5,016,861	18	Recovery Plan
Sardinia	Yes	South	1,659,443	12	Recovery Plan (deficit covered by other regional resources)
Lazio	No	Centre	5,493,308	21	Recovery Plan
Abruzzo	No	South	1,309,797	4	Recovery Plan
Molise	No	South	320,074	1	Recovery Plan
Calabria	No	South	1,998,052	11	Recovery Plan (2009)
Emilia Romagna	No	North	4,223,264	17	
Valle d'Aosta	No	North	124,812	1	

Sources: Minister of Health, 2010 data and National Institute for Statistics.

Table 1. A snapshot of the main statistics and comments of the IHRSs

Conducted interviews generally lasted between 1 and 2 hours. They were recorded and sent to the interviewees for their validation. In addiction preliminary results of the cross-regional analysis were presented to those who participated in the study in a feedback seminar held in 2009. The discussions evolved on this occasion represented an effective means of the cross-validation of the preliminary interpretations on the IHRSs responses on the characteristics of PMSs which were collected in a research report (Nuti & Vainieri, 2009) .
Findings coming from interviews are also supported and integrated by the documental analysis and the secondary data collected during the research.

4. Results

This paragraph reports the results of the three research topics analyzed regarding differences and similarities in: the PMS dimensions; the IRHSs' integration tools and in the regional attitude towards the use of benchmarking. Quotation are reported in italics.

4.1 Differences and similarities in the PMS dimensions

A first description given by regional policy makers and regional managers on the adopted tools (reported in the table 2) outlines that often Regions adopt more than one tools in order to cover all dimensions identified by the OECD. Sometimes Regions complain to be overwhelmed by a plethora of indicators (see Piedmont and Apulia quotation).
Many Regions that developed multidimensional PMS declared to have applied the following conceptual frameworks: Basilicata and Bolzano based their PMS on balanced scorecard approach (Basilicata regional law 329/2008 and Bolzano county law 1809/2009); Trento PMS is based on EFQM (European Foundation for Quality Management) framework (Panizza, 2010); Marche PMS is based on the value chain; Lombardy based its PMS on JCHA (Joint Commission on Hospital Accreditation) while Tuscany developed its own framework with the help of the Scuola Superiore Sant'Anna of Pisa (Nuti et al, forthcoming a).

Regions	Information about PMS framework
BASILICATA	Region uses more than one tools. They are then systematized in an annual BSC. BSC is the theoretical framework declared by the interviewees. Standards are set by the regional law 329/2008. There are both common and specific targets across Health Authorities.
CAMPANIA	The recovery plan's dimensions are monitored
FRIULI VENEZIA GIULIA	There are more tools that monitor the dimensions declared. Measurements are carried out by the Regional Agency for healthcare. Most of indicators are based on hospital data. *The 90% of primary care services measures is an indirect indicator of primary care performance because it comes out from hospital information systems such as the hospitalization rate for the heart failure…*
LIGURIA	Mainly the recovery plan's dimensions are monitored. *Liguria is one of the regions that have to follow a recovery plan from the financial deficit so that many actions, objectives and tools are determined by this particular situation*
LOMBARDY	The theoretical framework declared by interviewee is the JCHA: Joint Commission Hospital Accreditation.
MARCHE	Supply chain model is the theoretical framework declared by interviewee.
PIEDMONT	There is a plethora of tools with lots of information. *Our capacity to produce reports is higher than our capacity to read it.* There is an observatory on equity and epidemiologic aspects that supports analysis for health policy.
BOLZANO	BSC is the theoretical framework declared by interviewees. As regards as the customer and citizens satisfaction, it was carried out by the regional statistician department using panel. *Primary care measures are weak, we are not able to gather reliable information. So our systems are biased by the hospital side.*

Regions	Information about PMS framework
TRENTO	EFQM model is the theoretical framework declared by interviewees but is not the only tool adopted.
APULIA	Many tools are adopted in order to monitor performance. *There are too much indicators that are not systematized yet.*
SARDINIA	Indicators are derived by the Regional Health Plan. A top down approach was used in this stage.
SICILY	Many control systems have been introduced with the recovery plan. *There is a general lack of control systems.*
TUSCANY	Theoretical framework on Performance Evaluation System (PES) had been developed in 2004 in collaboration with the Mes lab, study centre of Scuola Superiore Sant'Anna of Pisa that is still in charge of the measurements and surveys. PES provides Region with a striking visual picture of the overall performance of health authorities.
UMBRIA	The epidemiological observatory makes periodical studies on equity and outcome. There is more than one tool.
VENETO	There is more than one tool. Regional Agency for healthcare helps Regional health department in the measurement and the process of evaluation.

Table 2. Information about regional PMS framework

The dimensions covered by all principal tools quoted by Regions are reported in table 3.

Regions	(a) health improvement /outcomes	(b) responsiveness	(c) equity (of health outcomes, access and finance respectively);	(d) effciency (both macroeconomic and microeconomic).
Basilicata	X	X		X
Campania	X			X
Friuli Venezia Giulia	X	X	X?	X
Liguria	X			X
Lombardy	X	X		X
Marche	X	X		X
Piedmont	X		X	X
Bolzano	X	X		X
Trento	X	X	X?	X
Apulia	X	X		X
Sardinia	X		X?	X
Sicily	X			X
Tuscany	X	X	X	X
Umbria	X		X?	X
Veneto	X	X	X?	X

Table 3. OECD dimensions covered by regional PMS.

Efficiency is the dimension with the highest level of commonalities across Regions. It can be addressed to the fact that Regions developed PMSs first focusing on standards and targets concerning managerial efficiency and cost containment, and then they extended their attention to other issues (Ancona , 2008). The predominance of the efficiency dimension emerges when there are consistent problems on keeping financial equilibrium and the Italian central government asks Regions for a recovery plan. Table 1 summarizes the Regions with a recovery plan in the period of interviews. Thus Regions under central government pressure for reducing financial deficit are mainly focused on costs containment. As a consequence the other dimensions (ie. Responsiveness) are considered less urgent and, as a matter of facts, they are not strictly monitored (this is well highlighted by the quotation of Liguria Region reported in table 2).

Regions	**PMS' Dimensions**
BASILICATA	1. Acute care 2. Territorial services 3. Primary care and prevention 4. Continuty of care 5. Integration between social and sanitarian care 6. Customer satisfaction (normative fulfilment) 7. Financial perspective 8. Human resources
CAMPANIA	Efficiency and financial aspects
FRIULI VENEZIA GIULIA	1. Efficiency 2. Equity 3. Promoting the good clinician practices 4. Improvements on population's health status The customer satisfaction is carried out by civic audits.
LIGURIA	There are indicators of efficiency, appropriateness and health production.
LOMBARDY	1. Financial and efficiency perspective 2. Outcome 3. Customer satisfaction (periodical surveys)
MARCHE	1. Population's characteristics; 2. Need 3. Demand 4. Supply 5. Access 6. Outcome/output 7. Financial perspective
PIEDMONT	1. Efficiency 2. Financial perspective 3. Ad hoc analysis (equity) Customer satisfaction is carried out by civic audits.

Regions	PMS' Dimensions
BOLZANO	1.Efficiency and economic sustainability 2. Appropriateness 3. Quality and outcome 4. Customer and citizens satisfaction (periodical survey on a panel)
TRENTO	1. Regional strategies 2. Financial perspective 3. Efficiency 4. Quality 5. Appropriateness 6. Equity
APULIA	1. Efficiency 2. Financial dimension 3.Clinical performance 4.Appropriateness 5.Regional strategies 6.Customer satisfaction
SARDINIA	1. Activation of some pathway projects 2. Activation of projects mainly based on developing health information services 3. Financial perspective 4. Specific indicators for each Health Authorities
SICILY	1. Appropriateness 2. Quality 3. Clinical risk management
TUSCANY	1. Population health, 2. Regional policy targets, 3. Quality of care, 4. Patient satisfaction, (periodical surveys) 5. Staff satisfaction, 6. Efficiency and financial performance
UMBRIA	1. Quality 2. Efficiency 3. Appropriateness
VENETO	1. Efficiency 2. Quality (for specific areas) 3. Appropriateness 4. Regional strategies

Table 4. Details of regional PMS dimensions

The health improvement and outcome is the other dimension declared by all Regions. That is due to the fact that some indicators included in the recovery plan are those related to an appropriate use of resources such as the number of medical DRGs discharged by surgical wards. Apart these indicators there are a lot of differences concerning the type of indicators included: only few Regions declare to include quality indicators or clinical risk (safety) indicators (see table 4) in addiction other differences concern the technique applied in order to

calculate some indicators for instance the large (or null) use of dichotomous (yes/no) indicators or the use of specific indicators related to the treatment of particular chronic conditions.
Responsiveness and equity are the dimensions less monitored and also those that register a high number of differences.
Regarding responsiveness, common indicators are those related to waiting times. Besides this type of indicators, other monitored topics concern patient satisfaction. Nevertheless lots of Regions declare to monitor patient satisfaction, methods are quite different from each others for instance some Regions, such as Lombardy and Bolzano, run sample surveys; others use the civic audit and finally others, such as Basilicata, control that surveys have been executed by Health Authorities without having information about the results (see table 4).
Concerning Equity, the Commission on Social Determinants of Health (CSDH) of WHO asserted that the systematic and continuous measuring of equity indicators is a fundamental step in order to close the gap of inequities (CSDH, 2008).
Only some Regions declare to have monitored equity. Most indicators related to equity require surveys so that many Regions seldom measured these type of indicators. The only two Regions that are able to measure systematically equity in access for some services (ie. Hospital discharges) are Piedmont and Tuscany (see table 5).

Regions	Equity dimension
Basilicata	*None at the moment.*
Bolzano	*We are still studying systematic indicators on equità. Nowadays we focus on immigrants.*
Liguria	*We are planning to control this aspect.*
Lombardy	Equity is pursued using indicators focused on frailty people.
Piedmont	Many ad hoc survey have been run on various topics. Inequalities are studied by the epidemiologic observatory, they have developed very high competences on these issues. In years Piedmont Region records the education degree in the hospitalization data so that we could control whether there are differences among social classes for inpatients.
Apulia	*We pay attention on frailty classes. We reorganized the exemptions on the basis of those classes.*
Sardinia	*We don't have equity indicators. At the moment we look at frailty classes such as mental health, elderly or drug addicted.*
Tuscany	*We have indicators coming from survey related to the educational degree and systematic indicators related to the access of educational classes for inpatient services.*
Trento	There is an ad hoc survey conducted by the specialized centre of Trento regarding all services. This study looked at indicators concerning the access per gender, age, education and so on.
Umbria	*We don't have systematic indicators on equity. Administrative data don't have reliable information on education or income. Many surveys have been conducted by the university centre on this topic. Some of them are really important.*
Veneto	*Although equity is one of the key issue of our regional strategic plan, we don't have indicators that control this aspect in a systematic way.*

Table 5. Regional responses on equity dimension

Information gathered by interviews and documental analysis highlight that Regions with comprehensive tool covering almost all OECD dimensions are those that are supported by internal (such as regional agency or epidemiologic observatory) or external (such as university centres) institutions. In this perspective it seems that innovative management tools are associated to a fertile cultural environment (ie. specialized university centre or observatory).

4.2 Differences and similarities in IRHS integration tools

Responses about integration between PMS and rewarding system can be classified into three groups (as reported in figure 1).

In the first group there are Regions that have coped with central pressure on the deficit control, they suspended the CEOs rewarding system or linked it to normative fulfilments (Case A).

In the second group (Case B) there are Regions (Basilicata and Sardinia) which show full integration between rewarding system and performance measurement system. These regions have recently implemented performance measurement systems and in order to enforce them, they decided to strictly link the rewarding system. To this extent the rewarding system introduces an innovative way of measuring performance.

The last group of Regions (Case C) is characterized by a partial integration of rewarding and performance measurement systems. These Regions decided to make a selection of measures to be rewarded adding to the PMS' measures also other type of decisions.

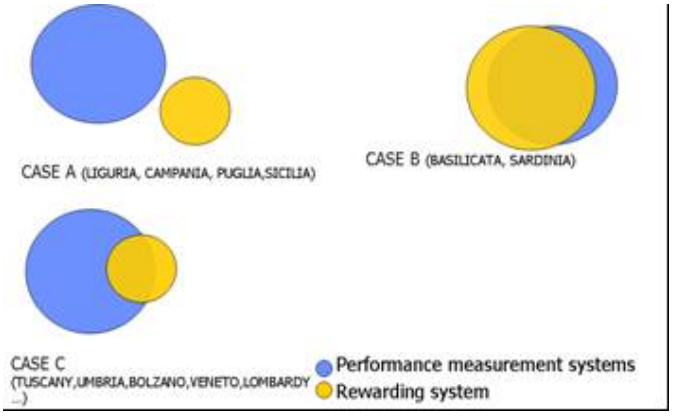

Fig. 1. Integration between performance measurement systems and rewarding system.

In general PMS covers much more topics than the rewarding system as it is represented in case A and C. These two groups collect the majority part of the Regions that participated in the study. The only case where the rewarding system is almost overlapping with the PMS adopted is the case B. It seems that when Regions seek to implement new reliable control system they use the rewarding system as a driver of change.

4.3 Differences and similarities in the regional attitude towards the use of benchmarking

Benchmarking is seen by all Regions, with the exception of Apulia, as an interesting opportunity to improve their performance.

These responses seem to be particularly influenced by contextual factors (described in table 1) such as the size of the Region and the environmental pressure. Indeed small regions such as Umbria feel, more than others, the necessity to look outside regional boundaries in order to gain the advantages of benchmarking (see table 6 Umbria, Trento and Bolzano quotations).

Regions	**Responses on the openness to benchmarking**
BASILICATA	*We are in favour of a general evaluation of health services. A minimum set of shared performance indicators can activate useful benchmarking processes.*
CAMPANIA	--
FRIULI VENEZIA GIULIA	*It is a must to enhance regional accountability. It is possible to identify a National set of indicators to be monitored at a Regional level. Sharing indicators and criteria is essential in order to guarantee a real comparison among Regions overcoming the risk of self referral assessment.*
LIGURIA	*We start participating in a regional network that could enable learning processes thanks to benchmarking outside our regional boundaries.*
LOMBARDY	*No wind is good for whom that does not know the rhumb line. It's a strategic problem, benchmarking can be a crucial help in defining the rhumb line. Above all in the European context*
MARCHE	--
PIEDMONT	*We are in favour of a benchmarking within the Regions because we believe that we would be at a good level of performance and we would have the same problems of other Regions but we ask for a regional network that smoothly runs the comparison*
BOLZANO	*We are the first ones who want to start benchmarking mechanism as a learning tool*
TRENTO	*It could be defined National guidelines in order both to compare regional health system and to support Regions develop effective tool using the same methodological issues.* *A performance evaluation system at a National level may activate useful benchmarking processes across regional health services and may help improving local performance evaluation systems.*
APULIA	*[...] Although we get data benchmarking, at this stage we prefer adopting a soft approach: in our opinion the measurement process has to be a supportive management tool. The assessment linked to performance benchmarking across health authorities could lead to disadvantages above all in terms of relationships.*
SARDINIA	--
SICILY	*We are definitely open to benchmarking.* *Benchmarking enabled us to identify and face the unacceptable gaps between Sicily and other Regions.*
TUSCANY	*Data benchmarking across health authorities can enable Regions to overcome self referral attitude and it can enhance learning and assessment processes in order to highlight best practices*
UMBRIA	*It is important to be able to compare measures at National level. It is more useful doing benchmarking with similar units outside its own Region than going on regional averages as in the case of Perugia teaching hospital that is the sole regional teaching hospital*
VENETO	*We are in favour of benchmarking at the National level. Results should be read by everyone. Indicators should be shared. Regions should create a linkage between National and Regional performance evaluation systems.*

Table 6. Regional responses on the openness benchmarking

Moreover uncertainty about the future due to the economic crisis, the Italian fiscal federalism reform and the European parliament spectrum imposes health sector and policy makers to share information about performance and successful strategies as affirmed by Lombardy (see table 6).
Although there is enthusiasm about benchmarking across Regions, this technique is not commonly applied within regional boundaries as governance tool.
Particularly interesting are the cases of Tuscany and Lombardy that both use benchmarking as learning tool among health authorities. Indeed while the former applies benchmarking to all indicators in a full transparent way (Nuti et al., forthcoming a), the second uses it especially for outcome indicators keeping clear the label of health authorities.
Even though most of Regions declare to be willing to compare their performance with others (see table 6) they show some reserve on how benchmarking should be done.
Some Regions declared that benchmarking should be done by National Government after having shared the selection of indicators, some says that the comparison should be run by an external benchmarking agency, others prefer having a regional supervision on how to run comparison finally someone asks only for a comparison on methodology.
Figure 2 summarize the regional positions, pointing out the different visions that go from a regional system (where there is maximum autonomy on measuring performance, no benchmarking across Regions) to a national system (where everything is decided and done by National Government).

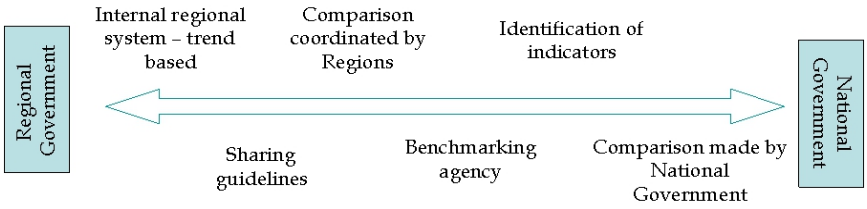

Fig. 2. Different visions on benchmarking.

Regions that are less willing to compare their performance are those that traditionally have had more autonomy (such as Trento) or those that have gone through a period of drastic cuts (such as Apulia). Regions more willing to enable benchmarking process and to go beyond regional boundaries are those that already measure their health service.

5. Discussions and conclusions

Italian regional devolution on health care has led each Region to develop its own PMS.
Although national reforms have pushed the adoption of managerial tools, the study points out that still few Regions have developed PMS capable to measure all the topical dimensions of the OECD framework (Efficiency, Responsiveness, Equity and Health improvement/outcome). In particular dimensions less controlled are: responsiveness and equity. Besides another weakness of the Italian regional PMSs is that often policy makers and regional managers use a plethora of tools in order to control the performance of health service and health system organizations. This highlights that in most cases regional policy level lacks of strategic tools capable of summing up the overall performance in an easy, integrated and systematic way.

Similarities concerning the dimensions covered by all PMSs seem to be dictated by path dependency or national pressure on financial deficit. Indeed past choices, such as the DRG financing system, have had an enduring influence on narrowing the range of viable alternatives in fact health informative systems are mainly oriented to hospital services (as Friuli Venezia Giulia and Bolzano complained in table 2). Moreover national pressure on financial deficit have shaped lots of regional PMSs so that these PMSs are focused on the efficiency and financial performance dimension paying less attention to the other ones.
Pioneer Regions in the development of PMS or area indicators are those that declared to have adopted a specific framework or those that have specialized regional study centres (often linked to University) that have spurred Regions to look beyond traditional measures (ie. Piedmont with the equity research group or Tuscany with the MeS lab).
Another interesting result pointed out by the study is the role played by the rewarding systems. The rewarding system is often integrated with PMS even if they do not completely overlap. A different situation regards Regions that are not used to measure performance in a systematic and coordinated way. Here, the rewarding system is the means by which Regions, such as Basilicata, introduce comprehensive PMSs. To this extent rewarding system can be seen as the driver of innovation.
Scholars suggest benchmarking as another driver of change. Although most Regions acknowledge that benchmarking processes may help spreading innovation and improvements there are still few Regions that adopt benchmarking within regional boundaries (Lombardy and Tuscany), sometimes because they are small Region (like Bolzano or Umbria), sometimes because they don't want to enable negative competition (like Apulia). Most Regions declare to be open to compare their performance across regional health authorities or teaching hospitals but there are quite different visions on how this comparison should be done. From one side there is the vision related to the fear of loosing autonomy (like Regions that want to share only the criteria on how to assess performance), on the opposite side there is the vision that consider performance benchmarking as a powerful tool in order to support regional decisions and strategies (like Regions that ask for public evidence in order to overcome unacceptable differences).
This paper has provided with a first picture of the similarities and differences of the Regional PMSs seeking to identify the factors that may have influenced the PMS design.
These hypotheses on factors that affect PMSs design, should be tested throughout other studies above all with the new scenario that has been emerging on the performance control: from one hand a group of Regions decided to start a network in which they compare and evaluate the performance of health services throughout the help of a benchmarking agency; from the other hand on April 2010 the Ministry of Health published on the website its national performance evaluation system (Nuti et al forthcoming b).

6. References

Ancona A. (2008) I sistemi di valutazione dei servizi sanitari. *I quaderni di monitor*; I supplemento al n.20

Arah O.A., Klazinga N.S., Delnoij M.J., Ten Asbroek A.H.A., Custers T. (2003) Conceptual frameworks for health systems performance: a quest for effectiveness, quality, and improvement. *International Journal for Quality in Health Care*; 15(5): 377-398

Arah OA, Westert GP, Hurst J, Klazinga N.S.(2006) A conceptual framework for the OECD Health Care Quality Indicators Project. *International Journal for Quality in Health Care*; September:5-13

Banchieri G. (2005) *Confronti. Pratiche di benchmark nella sanità pubblica italiana*, Italpromo Esis Publishing Editore.

Censis.(2008) *I modelli decisionali nella sanità locale*. Censis.Roma.

Flamholtz E.G., Das T.K., Tsui A.S. (1985) Toward an integrative framework of organizational culture. *Accounting, Organizations and Society*; 10(1):35-50

Formez. (2007) I sistemi di governance dei servizi sanitari regionali. *Formez*; 57

Hood, C. (1995b). The new public management in the 1980s: variations on a theme. *Accounting Organizations and Society*, Vol 20 n2/3 pp 93-109

Hood, C. (1995a). Contemporary Public Management: A New Global Paradigm? *Public Policy and Administration*. 10(2): 104-117.

Hurst J., Jee-Hughes M.Performance (2001) Measurement and Performance Management in OECD Health Systems. *OECD Labour Market and Social Policy Occasional Papers*; 47

Johnston D.J. (2004) Increasing value for money in health systems. *European Journal of Health Economics*; 5:91-94

Kelley E, Hurst J. (2006) Health Care Quality Indicators Project: Conceptual Framework. *OECD Health Working Papers*; 23 doi:10.1787/440134737301

Lapsley, I.(1999) Accounting and the New Public Management: Instruments of Substantive Efficiency or a Rationalising Modernity?, *Financial Accountability and Management* 15(3/4): 201-207

Mannion R & Davies H TO (2008) Payment for performance in health care. *BMJ*; 336: 306-308

McLoughlin V., Leatherman S., Fletcher M., Wyn Owen J. (2001) Improving performance using indicators. Recent experiences in the United States, the United Kingdom, and Australia. *International Journal for Quality in Health Care*; 13(6): 455-462

Modell S, Jacobs K, Wiesel F.(2007)A process (re)turn? Path dependencies, institutions and performance management in Swedish central government. *Management Accounting Research*;18: 453–475

Murray C.L.J., Evans D.B. (2003) *Health Systems Performance Assessment Debates, Methods and Empiricism*. World Health Organization. Geneva.

NHS Executive. (1999) *The NHS Performance Assessment Framework*.The Stationery Office.London.

Nuti S, Vainieri M. (2009) *Fiducia dei cittadini e valutazione della performance nella sanità italiana*. Edizioni ETS. Pisa.

Nuti, S., Bonini, A, Murante, A.M. & Vainieri, (2009) M.Performance assessment in the maternity pathway in Tuscany region. *Health Services Management Research;* 22, 115-121.

Nuti, S., Seghieri, C., Vainieri, M (forthcoming a) Assessing the effectiveness of a performance evaluation system in the public healthcare sector: some novel evidence from the Tuscany Region experience. *Journal of Management and Governance*.

Nuti, S., Seghieri, C., Zett S., Vainieri, M (forthcoming b) Assessment and improvement of the Italian Healthcare system: first evidences from a pilot national performance evaluation system". *Journal of Healthcare Management*.

Ouchi W.G. (1979) A conceptual framework for the design of Organizational Control Mechanism. *Science*; 25

Panizza G. (2010) Relazione sullo stato del Servizio Sanitario Provinciale Anno 2009 (dati 2008) *infosalute n.8* Giunta della Provincia Autonoma di Trento

Patton M.Q. (1990) *Qualitative evaluation and research methods*. SAGE Publication..

Pink G.H. McKillop I. Schraa E.G. Preyra C. Montgomery C. Baker R. (2001) Creating a Balanced Scorecard for Hospital System. *Health Care Finance*;2(3):1-20

Saltman R.B., Bankauskaite V.,Vrangbaek K. (2007) *Decentralization in health care*. Mc Graw Hill Open Univesity Press.

Smith P.C. (2002) *Measuring Up. Improving Health Systems Performance in OECD Countries*. OECD.Ottawa.

Van Herck P, De Smedt D, Annemans L, Remmen R, Rosenthal M B and Sermeus W. (2010) Systematic review: Effects, design choices, and context of pay-for-performance in health care. *BMC Health Serv Res*.; 10: 247.

Veillard J, Champagne F, Klazinga N., Kazandjian V, Arah O.A.,Guisset A.L. (2005) A performance assessment framework for hospitals: the WHO regional office for Europe PATH project. *International Journal for Quality in Health Care*; 17:487-496

Watson G. (1993) *Strategic Benchmarking: How to Rate Your Company's Performance Against the World's Best*. Wiley & Sons.

CSDH (2008) *Closing the gap in a generation: health equity through action on the social determinants of health*. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization.