

## Different countries, same needs: tracking quality of care in the US and Italy. Case study: the US National Healthcare Quality Report and the Italian Osservasalute Report

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### Abstract

Tracking health system performance is an issue that has commanded more and more attention within scientific and policy circles across the world in recent years. The monitoring of quality of care in both the US and Europe has risen on the national agenda to the point that major national efforts have been undertaken to measure and report on quality of health care delivery. The basic purpose behind national reporting efforts like the Osservasalute Report and the US National Healthcare Quality Report, is answering two main questions: what is the quality of care offered to the population? Are we getting better or worse quality of care out of our system? The analysis reported in the paper shows many similarities between the two reports. The growing need for clinically specific information on the performance of health care systems is at the heart of the mandate for these two reports. Even though there are differences between the reports in terms of the specific indicators chosen and the presentation structure and style, there are many similarities in terms of the condition areas tracked in the report and the findings regarding variability across Italy and the US in terms of the quality of care offered in different states or regions of each country. The two reports are similar in that their development teams at Observatory on Health in the Italian Regions and AHRQ continue to work with a broad group of stakeholders to ensure that the reports are used as a tool to improve quality.

*Key words: quality of care, USA, Italy*

### Introduction

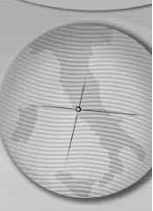
The need for information on the performance of health systems is something that is not limited by national boundaries. The knowledge that health systems have similar needs for information on their performance was presented in stark detail in the World Health Report 2000 [1], with its summary of health systems performance. Since then, work by WHO and other international organizations such as the World Bank and the Organization for Economic Cooperation and Development (OECD) has attempted to present information on health system costs and access (in terms of utilization).[2] Yet, in the midst of this relatively recent history in health systems performance tracking is the fact that quality of care has been relatively ignored in relation to topics such as health care system costs and access. Recent work by the Commonwealth Fund [3], the Nordic Group and the Organization for Economic Cooperation and Development has begun to address this gap in data on quality of care at the international level.

At the national level, there is growing recognition that the ad hoc reporting of quality indicators in

international reports or in specific disease-based reports is inadequate to answer the primary two questions of policy makers: What is the quality of care offered to our population? And, are we getting better or worse quality of care out of our system? To answer these relevant, if summary, questions, some effort is needed at the national level to summarize across a broad set of indicators the quality of care offered to a national population. This is the basic purpose behind national reporting efforts like the Italian Osservasalute Report and the US National Healthcare Quality Report. Yet, their similarities do not stop there. This paper explores these similarities, and differences, between the reports by briefly reviewing the reports' mandates, their structure and indicators and the results seen in the most recent set of reports. By doing so, we hope to show the importance of these national reports as well as their limitations as national quality tools.

### Report background and mandates

The Osservasalute report is addressed to citizens, to their representatives and to their technical and political decision makers, and aims



to be a synthetic information system capable of identifying those regions with the best level of health and the highest quality of care. The Osservasalute report puts together comparable regional data from different sources in order to use them for monitoring and benchmarking the performance of regional health and health care systems. The Osservasalute report arises out of a multidisciplinary collaboration between more than 60 experts from the Osservasalute network and is the first publication that analyses the health in the Italian regions by undertaking a comparative analysis of the different performances. This allowed an accurate analysis of the geographic variations and regional differences and their study allows for the identification of ideal performances for which every region should aim.

The Osservasalute report is produced by the Observatory on Health in the Italian regions. The Observatory operates with two main perspectives: at a national level and at European level. At a National level the observatory's perspective is to validate the indicators and the quality of data reported, contribute to define exactly what information is missing and, if possible, organize in co-operation with the Ministry of Health and the National Institute of Statistics, a data collection. At European level there are two main perspectives: the first is to contribute to the organization of a network of regional health observatories (RHONE); the second is to contribute to the production of a report on Health and Health care in the European Regions.

The US NHQR and its companion report, the US National Healthcare Disparities Report, arose from a legislative mandate for the US Agency for Healthcare Research and Quality (AHRQ, an agency of the US Department of Health) to report "annually on the health of the American people." (Section 913(b)(2) of the Public Health Service Act as amended by Public Law 106-129). The purpose of the report is to summarize the current state of the science of health care quality in terms that are understandable and relevant to a broad audience, including providers, consumers, researchers, and policymakers. The NHQR was the first national report to examine not only how effective health care is, but also how patient-centered, timely, and safe health care is in America. The NHQR was designed and produced by AHRQ, with support from the Department of Health and Human Services (HHS) and private-sector partners, to respond to this legislative mandate. The mandate for the report grew out of a confluence of activities, including a growing body of research and a series of reports from the

Institute of Medicine (IOM) highlighting the quality challenges facing the Nation and the interest and commitment of the new Administration to improving health care quality.[1-3] The report legislation does not state that both national and subnational data are to be reported, however, the report tracks data at the state level for about three-quarters of its measures (described below.) The use of state data, however, was originally a concern for the US DHHS in its relations with states and state governments.

Clearly, there was (and continues to be) a common need in the two countries that spurred organizations to ask for a national report on quality of care. The lack of available nationally representative data, the relative lack of activity by the national government in quality of care and the hope that the report would be an ongoing repository of information is in common between the two reports. The advantage of the Osservasalute report is that there was an interest in identifying regions that were leaders in health care quality in given clinical areas. This predisposing interest in "benchmarking" across regions meant that the Osservasalute report had a ready audience for the use of its data.

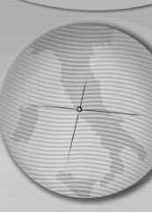
### Structure and indicators

The Osservasalute report uses a comparative analysis methodology and internationally validated health indicators. One hundred and ten indicators are used and come from those reported in the European Union Public Health Indicators (EUPHIN) Project of the European Commission, to which were added other indicators constructed for specific aspects not considered in the EUPHIN Project.

For the first time in Italy, the Quality Indicators of AHRQ were introduced and used. These indicators include indicators such as preventable hospitalizations and other hospital quality measures such as inpatient mortality. Osservasalute indicators represent a pilot experience even at European level, aimed to develop a methodological basis for the comparison between different European regions and to acquire experiences, useful to identify situation of excellence and to understand their mechanisms and roots.

The structure of each indicator in the Osservasalute report is articulated in six sections as follows:

- Significance: describes the main characteristics of the indicator, including its numerator and denominator;
- Validity and Limits: analyses the strengths, weakness and bias of the indicator;



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- **Benchmark:** is the value given for most indicators, where appropriate. In some chapters for instance, demographic indicators, only a reference value is given;
- **Source of data:** gives references to the sources of the data reported;
- **Description of results:** provides a table with regional data, a graph or a map and a critical analysis of the data presented;
- **Osservasalute's recommendations:** suggest the goal to achieve in accordance with the benchmark. When useful specific analyses, by the regional referee, are given to describe the way in which the best result has been achieved.

For the US NHQR, a major consensus effort was undertaken to develop the first measure set. Representatives from a range of HHS agencies provided ongoing input throughout the development process of the first quality report through a Federal Interagency Workgroup for the US NHQR and NHDR.

In order to select measures for the report, the Interagency Workgroup developed a "call for measures" that was sent to all relevant Federal agencies. The Institute of Medicine issued a complementary call for measures to the private sector. Those submitting measures also had to submit the name of a proposed data set. More than 600 measures were submitted for consideration in response to these calls.

The Measures Workgroup mapped the candidate measures into the fleshed-out conceptual framework. The measures within each category of care were evaluated for inclusion in two parts:

1. Measures were selected to maintain consistency with existing consensus-based measure sets where possible.
2. The workgroup assessed candidate measures using the following criteria: [1]

- **Importance.** What is the impact on health associated with the health problem assessed by the measure? Are policymakers and consumers concerned about this area of health care quality? Can the health care system meaningfully address this aspect or problem?
- **Scientific soundness.** Does the measure actually reflect what it is intended to measure?

Does the measure provide stable results across various populations and circumstances? Is there scientific evidence available to support the measure?

- **Feasibility.** Is the measure in use? Can information needed for the measure be collected in the scale and time-frame required? How much will it cost to collect the data needed for the measure? Can the measure be used to compare different population groups?

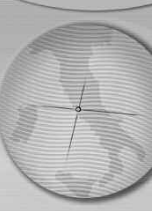
A particular effort was made to include both process measures that assess what happens to patients during their care and outcome measures that track what ultimately happens as a result of that care. Process measures are more direct assessments of the quality of particular care received and have been shown to be more sensitive for detecting differences between individual health care institutions. However, adequate process measures with national data sources have not as yet been developed in many clinical quality areas. Outcome measures of quality have inherent methodological issues when used to judge quality. The NHQR Interagency Workgroup worked to select process measures that are closely linked to outcomes and outcome measures that are understandable, valid, and can, when appropriate, be adjusted for other factors such as severity of illness or age.

In addition, an effort was made to analyze the potential data sources for the NHQR. It is clear that the NHQR must rely on readily available, reliable and valid, regularly and consistently collected data at both the national and State levels. These requirements restricted the data sources that could be used for the report. When the call for measures was made, there was also an accompanying request for data sources for the proposed measures. During the developmental phase of the project, the workgroup devised a two-tiered scheme for characterizing possible data sources for the report. Each potential data source was classified according to the criteria presented in Table 1 below.

This system of categorization helped to identify established, national data sources that are the standard for providing national estimates over time for the report. The data from these data

**Table 1. Two-tiered categorization scheme for examining data sources**

<b>Tier I: Substantively relevant and nationally representative:</b>	<b>Tier II: Substantively relevant but:</b>
<ul style="list-style-type: none"> <li>• For the target population under consideration</li> <li>• For a given population such as civilian, resident, noninstitutionalized, nursing home residents, etc.</li> <li>• And accurate and reliable with specified relative error</li> <li>• With the capacity for multiple levels of detail</li> <li>• With acceptable response rates</li> </ul>	<ul style="list-style-type: none"> <li>• Adjusted to compensate for limitations in national representation</li> <li>• Data representative at the subnational level (such as State or Metropolitan Statistical Area)</li> <li>• Data not nationally representative but substantively important</li> </ul>



## Sidebox #1: Snapshot of the organization of the Italian and American national quality reports

Report Organization	
<b>Osservasalute Report Chapters</b>	<b>US NHQR Chapters</b>
Socio- Economic and Demographic References	Highlights
Health needs	Introduction
The Environment	Background
Risk Factors	Effectiveness
Economic and Structural Aspects	Cancer
Reproductive health	Diabetes
Health in Infants and Youths	End Stage Renal Disease
Health in Elderly	Heart Disease
Workplace, Home environment and road safety	HIV and AIDS
Hospital Care	Maternal and child health
Emergency	Mental health
Primary care	Respiratory disease
Pharmaceutical care in general practice	Nursing home and home health care
Methodological note	Safety
Source of data	Timeliness
	Patient Centeredness

sources provide estimates for the U.S. civilian, noninstitutionalized population.

The key common ingredient across both reports is the consensus-based nature of developing the indicators for the report. While the processes and bodies used for generating consensus are different, the idea that the heart of the report, the measure set, was developed with broad input from various sectors is key to the success of the reports in both countries. Such consensus building is valuable not just in that it draws in partners, and therefore potential audiences for the report. It also creates a national process for recognizing what are the key things to measure in health care quality in a particular national context. Finally, it also helps make clear where measures exist and where there are national gaps in knowledge related to quality of care because measures or national data do not exist. In many ways, this will be the lasting legacy of the first Osservasalute and NHQR reports.

## Results

The data used in the Osservasalute 2003 report gave the opportunity to rank the different topics such as mortality rates of the main diseases, structural and economical aspects, reproductive health, health of elderly, security in the workplace, hospital care, primary care and pharmaceutical care. There are historical differences in health conditions between north and south of Italy; there is also a variation between east and west of Italy. The east side of Italy, from Friuli Venezia Giulia to Puglia, shows better health indicators and health performance than the west side, from Piemonte to Calabria.

The results of all the indicators can be clustered into three different groups:

1. indicators without regional differences
2. indicators where the regional differences follow

a north - south gradient and in some instances, an east - west gradient;

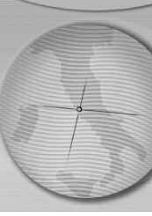
3. indicators with important differences but without gradient (jeopardized differences).

The standardized mortality rate for infectious diseases is the only one indicator where Italian regions show a homogeneous pattern: the level of mortality is very low in all the regions and there are no regional differences.

All the other indicators show wide differences across the regions. Life expectancy at birth is an example of this; its value is one of the highest in the world and it is still increasing (on average 3 months per year). For most of the regions there is a linear relationship between life expectancy in males and females, but in some regions (all in the north) there is an increased life expectancy for females while in others (all in the south) the female life expectancy is reduced.

One of the other most prominent results is the massive movement of patients seeking hospital care from the southern regions to the central or northern regions. This migration of patients is not only for more complex procedures but also for the less complex ones provided in day hospital care.

For the 2004 NHQR, the highlighted findings emphasized the first opportunity to examine the direction that the US health care system was going in terms of whether quality of care was improving or not. In addition, variation across states was the second particular point of analytic emphasis. In conjunction with the release of the reports and its broad findings on state-level variability in health care quality, AHRQ released a set of "state snapshots" that published for the first time findings across a broad set of indicators for each state, highlighting strong performance areas and areas for improvement for each state.



As a result of the analysis of the 2004 NHQR data, three key themes emerged. These themes are relevant to policymakers, clinicians, health system administrators, community leaders, and all who seek to use the information in the report to improve health care services for all Americans:

- Quality is improving in many areas, but change takes time - Most measures have shown some improvement - Nearly twice as many measures have improved as have deteriorated
- The gap between the best possible care and actual care remains large - While two-thirds of measures with trend data have improved versus the 2003 NHQR, most improvement was modest (0-10%) and disparities continue to be pervasive Across all dimensions of care; Across many levels and types of care; Across most clinical conditions; Within many subpopulations
- Further improvement in health care is possible - Patients in the highest performing States are getting care at a level of quality many times higher than that of the lowest performing States. Moreover, major opportunities for improvement still exist in quality and disparities. For example:
  - While Medicare patients admitted to the hospital with pneumonia get individual recommended treatments as often as 81% of the time, only 30% of these patients get all of the recommended interventions for their condition
  - Less than half of AMI patients are given counseling to quit smoking; yet African Americans and Hispanics are significantly less likely to receive such counseling

### Conclusions

It is clear from this brief review of the two reports that there are many similarities between the two reports. The growing need for clinically specific information on the performance of health care systems is at the heart of the mandate for these two reports. While there are differences between the reports in terms of the specific indicators chosen and the presentation structure and style, there are many similarities in terms of the condition areas tracked in the report and the findings regarding variability across Italy and the US in terms of the quality of care offered in different states or regions of each country. Finally, most importantly, the two reports are similar in that their development teams at Observatory on Health in the Italian Regions and AHRQ continue to work with a broad group of stakeholders to ensure that the reports are used as a tool to improve quality.

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