The development of a tool for measuring the implementation of stewardship in public health

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ABSTRACT

BACKGROUND: Stewardship is contemplated as a way to make the National Health Service more efficient and effective within the context of devolution. In December 2010, the Minister of Health commissioned the University of "Sapienza" and "Cattolica" of Rome the task of testing and ensuring that we have the appropriate tools for evaluating the implementation level of Stewardship as part of the realization of the Actions contemplated in the National Prevention Plan and their application to the Italian Regions context.
METHODS: the method of analysis included two phases: 1) implementation of the evaluation model and assessment tool; 2) validation of the tool, with the objective of ascertaining its technical-informational functionality. The questionnaire included 141 answers in a closed format (singles or multiples) and was subdivided into five areas of analysis. Every function of Stewardship was adjusted by a "weight" and a score (from 0 to 5) assigned by a panel of experts was applied to each item.
RESULTS: "Ensuring Accountability" was indicated as the most important Stewardship function. "Ensuring accountability", "Leadership", "Resources Management and services", "Accountability" and "Evidence based medicine/Evidence based prevention", respectively, characterized each function. Responses were received from 75% of experts. Moreover, suggestions were collected for each question.
CONCLUSIONS: Considering this relatively new field of interest, to date there are no tools for looking at all aspects of stewardship. However, a rigorous instrument could be crucial for the success of policies. The proposed method could enable one to assess the level of Stewardship implementation, and to compare and propose actions for improvement. This could be essential to achieving the highest levels of quality in Public Health.

Key words: Stewardship, Prevention, Public Health

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INTRODUCTION

The concept of Stewardship has an old genesis (1, 2). Over a decade ago, the World Health Organization (WHO) introduced the concept of Stewardship applied to the health sector, defining it as the "careful and responsible management of the well-being of the population" and identifying it as one of the four major functions of health systems worldwide (3).

"Health Ministries should promote inclusion of health considerations in all policies and

advocate their effective implementation across sectors to maximize health gains. Monitoring and evaluation of health system performance and balanced cooperation with stakeholders at all levels of governance are essential to promote transparency and accountability" (Tallinn Charter) (4, 5).

Following these efforts, the Stewardship model has been proposed a system of governance on the health agenda of many countries worldwide.

The decentralization of the decisional power is one of the most important step of State reform, and is of particular significance within the political context. In the Italian National Health Service (NHS), for example, the executive and fiscal reform of 1978 (6), and the prevalently legislative development "Riforma del Titolo V della Costituzione" in 2001 should be mentioned as steps towards this process.

The Italian devolution context and the decentralization of the NHS need a new governance model which is consistent and adaptable to the current framework. This context also needs a comprehensive action of reforms aimed at reviewing roles, tasks, accountability and missions as well as targeting the objectives of the system (6-10), especially that of healthcare.

In Italy, the Stewardship model has been identified as an instrument that points to the realization of the Actions contemplated by the National Prevention Plan 2010-2012.

In 2005, the Ministry of Health (MoH) and the Regions signed the first five-year National Prevention Plan (PNP), which runs parallel to the *Piano Sanitario Nazionale* (National Health Plan - PNS). The PNP established a level of results-based financing for prevention activities, modifying the way in which the Regions usually received funds. Afterwards, the second PNS (2007-2009) was stipulated and was similar to the first, but it added new special funding directed towards the lower performing southern Regions of Italy (11). Considering such progress, the second PNP (2010) (12) was designed to absorb the objectives and functions of the PNS, and, more importantly, explicitly mentioned Stewardship as integral to the governance framework that the MoH should adopt for implementing the objectives of the Plan.

Stewardship allows and promotes developments in collaborative relations between the Central government, the Regions and the Local Health Unit-level (*Agenzia Sanitaria Locale* or ASL): the central government (the MoH) assumes the role of steward towards the Regions; the Regions themselves assume the role of steward towards the several stakeholders (13). The coordination and the addressing actions that the role of the steward implies force the assumption of accountability on the other elements of the NHS. In this context, there's a bigger involvement of all implicated stakeholders (Regions, Local Health Unit-level) compared to the traditional model of "the mandate" (agency), which was more hierarchic and individualist (6).

The idea of Stewardship for the development of an institutional model, and the easement between State, Regions and Local Health Unit-level therefore, is contemplated as the way to make the NHS more efficient and effective in this devolution context.

Travis et al. (14) proposes six main sub-functions of health system Stewardship:

(1) Formulating strategic policy direction: is a key Stewardship sub-function of the NHS. The steward should articulate a vision for the programs as well as set out goals and objectives for the short- and long-term, and define the roles of the public, private and voluntary health sectors within the programs. He/She should also outline feasible strategies, guide the prioritization of health expenditure, and monitor the performance of sub-centrally run health services. These plans are drawn up by the MoH and agreed on by the Regions at the highest platform for coordinating and making executive decisions on the health system, i.e. the Intesa Stato-Regioni. While the PNP defines the roles of health sector actors in general, the PNS defines the stakeholder roles and program needs, promoting planned research.

(2) Ensuring a fit between policy objectives and organizational structure and culture: the steward is responsible for guaranteeing the overall architecture of the health system and its coherence with the social and cultural values of the country. As such, he should work to minimize overlapping roles, undesirable duplication of services and fragmentation within the system.

(3) Ensuring tools for implementation: powers, incentives and sanctions. The third sub-function of Stewardship regards making sure that the appropriate tools and rules are available and employed by all the actors of the system. As such, the steward's duty is to ensure that his

powers are coherent with his responsibilities. In addition to aligned powers, the steward should ensure that the system's stakeholders have at least access to the tools they need for implementing this role. He must also ensure that the right tools for monitoring and exerting influence on the other stakeholders are available. Furthermore, the steward must take action to set and enforce appropriate rules, incentives and sanctions for the system's stakeholders – most importantly, in the sub-central levels of government in a decentralized NHS (15).

(4) Building coalitions and partnerships: factors outside the main steward's realm impact on health and it is, thus, prudent to build and maintain effective coalitions and partnerships. Partnerships can be formed with professional associations, patient or consumer groups, other ministries, private enterprises, medical schools, the pharmaceutical industry, research foundations, politicians at all government levels, NGOs, etc. (15). In a decentralized system, partnerships with sub-central levels of government are essential for a fully functioning system.

(5) Generation of intelligence: generating intelligence for a health system is essential for creating an evidence based background for decision-making. Intelligence is much more than just "information". It is reliable, up-to-date information on (i) important contextual factors, (ii) the actors that influence the system and/ or programs, (iii) current and future health and health system performance trends (the current information system and future applied research), and (iv) possible policy options, based on national and international evidence and experience (15, 16). Intelligence regarding actors is particularly important for setting the agenda and designing political strategies to improve the probability of policy adoption (17).

(6) Ensuring accountability: in a decentralized health system, like that of the Italian NHS, this generally means making certain that the central government is accountable to sub-central governments, as well as to the entire country's population, for performing its role and responsibilities to its fullest. At the same time, the sub-central governments should also be held accountable to both the central government and their constituents (the populations of their territories) (18).

There is little empirical evidence to support or guide Stewardship implementation. Moreover, investigations lack relevant data and information for the proper measurement of the level of Stewardship. The reason for this gap is two-fold: (i) Stewardship is a fairly new concept to health systems, and (ii) its theory has not yet reached an operational level.

In particular, it attempts to verify the framework's operability in practice and to better understand how it might be strengthened for implementation. Its objectives are to contribute to empirical evidence for health system Stewardship and, importantly, to offer the implementers an explanatory example of what health system Stewardship could mean in practice.

Community-based collaborative groups involved in public health management are assuming greater roles in planning, project implementation, and monitoring. This entails the capacity of collaborative groups to develop and sustain new organizational structures, processes, and strategies.

The World Health Report 2000 describes Stewardship as part of an effective NHS based on the interaction belief (7).

The adoption of the model based on the interaction belief between *"leadership"* and sub-central governments, and on the collaboration between centre and periphery, reveals some strengths such as:
- increasing belief in the Government;
- making the allocation of resources more transparent;
- increasing the accountability among and between levels of government;
- assuring training and development of competence at all levels;
- monitoring the NHS performance;
- reporting and sharing the best practice.

Despite devolution, Stewardship should be based on the same organizational model of implementation and evidence across the 20 Italian Regions.

In this framework, assessing the utilization of Stewardship in the enforcement of the PNP across the Italian Regions has become a priority action, and, in addition to aligning powers, the steward should ensure that the system's stakeholders have at least access to the tools they need for the implementation of their role, and particularly how they interact with sub-central levels of government in a decentralized NHS (2).

With this focus in mind, in December 2010 the MoH commissioned the University of "Sapienza" and "Cattolica" of Rome the task of planning and testing an appropriate evidence based tool that could evaluate the implementation level of Stewardship as part of the realization of the PNP actions set out for the Italian Regions context.

METHODS

Questionnaire

"Sapienza" and Cattolica" Universities of Rome created an evidence based tool using a balanced questionnaire.

The method of analysis included two phases:

1. implementation of the assessment tool;
2. validation of the same tool, with the aim of ascertaining its technical functionality.

The implementation phase was structured into three lines of activity: firstly, a scientific literature review of official health system documents was conducted; secondly the evaluation model was defined; and lastly the computerized tool was developed.

We described the framework and sub-functions of Stewardship, identifying the Stewardship activities that were carried out by the Program and reflected upon the operability of the framework, as well as the activities that the Programs have not yet implemented but would benefit from doing so.

Therefore, the tool was divided into 5 areas of analysis, on the basis of the Stewardship functions.

For each area, the methodology, based on a balanced questionnaire, included a form for the quantification of the level of Region-wide Stewardship implementation.

Each form was also structured in a range of analysis dimensions that referred, to those responsible for governance, assumptions and tools (10) that could be applied and declined for every specific function of Stewardship:

- functional and structural assumptions, i.e. managerial and organizational elements targeted at introducing governance tools for the realization of the PNP actions: Leadership; Management resources and services; Research and Developing; Culture

of learning; Informative Systems;

- tools of governance, in the strict sense of the word: Evidence based Medicine/ Evidence based Prevention (EBM/EBP); Accountability; Audit; Measurement/evaluation Need and/or Performance; Health Technology Assessment (HTA); Quality System; Risk management; Information and Sharing of the Citizen/ Patient.

Each area of analysis, finally, included a number of evidence based questions of a closed type, the whole spectrum aiding to construct the assessment methodology (tool).

The evidence based approach, that underlies the audit tool, is based on a scientific literature review, performed with the aim of identifying evidence of the correlation between the proper utilization of a specific tool of governance and the enforcement of the function of the Stewardship within PNP (Table 1).

The development of the balanced questionnaire followed the scientific literature review, in order to identify specific items with which to perform the evaluation.

The questionnaire included 141 questions in a closed way (singles or multiples) and was divided into five area of analysis (Stewardship function) as follows (Table 1):

1. formulating strategic policy influencing stakeholders (31 questions);
2. ensuring tools for implementation of policies (44 questions);
3. building coalitions and partnerships (32 questions);
4. ensuring accountability (26 questions);
5. knowledge-based management (8 questions).

Each function of Stewardship was "weighted" and a score was applied to each item (from 0 to 5).

The weighing and scores' assignment was performed on the basis of the "force" and importance of the scientific evidence, and on the basis of National or International recommendations, collected around each area of the developed tool.

The weighing and scoring was aimed at measuring each single element, and the global implementation was a consequence of the correct weighting of partial scores.

For each area, a computerized data sheet was developed and it was composed of a variable number of items in a closed way (singles or multiples). The result was the

TABLE 1

SYNTHESIS OF THE FUNCTIONS OF THE STEWARDSHIP, OF THE ANALYSED DIMENSIONS OF GOVERNANCE, AND TOTAL NUMBER OF QUESTIONS FOR EACH FUNCTION		
FUNCTIONS OF STEWARDSHIP	**DIMENSIONS OF GOVERNANCE**	**NUMBER OF QUESTIONS**
Formulating strategic policy influencing stakeholders	Accountability; Leadership; Management resources and services; Measurements/ Need evaluations and/or performance; Informative System	31
Ensuring tools for policies implementation	Accountability; Audit; Culture of the learning; EBM/EBP; Leadership; Management resources and services; Measurements/Need evaluations and/or performance; Informative Systems	44
Building coalitions and partnerships	Audit; Information and Sharing of the Citizen/Patient; Leadership; Informative Systems.	32
Ensuring accountability	Accountability; Audit; Culture of the learning; Information and Sharing of the Citizen/Patient; Leadership; Risk Management; Quality Systems; Informative Systems.	26
Knowledge-based management	EBM/EBP; HTA; Management Resources and Services; Measurements/Need evaluations and/or performance; Informative Systems.	8

definition of an appraisal system based on a collection of structured information translated into scores, in order to allow comparable and replicable results during the survey. Therefore, the proposed evaluation model is based on the development of a relevant tool, the Scorecard, in which there are rigorous and exact definitions of contents for the principles and elements, and for each relevant object included in the evaluation.

The appraisal tool, translated into a computerized scorecard, could be applied to structured and systematic interviews, with the aim of collecting information.

Study design and Population

In the preliminary phases, and also in the evaluation of the tool, a panel of 12 experts was consulted (Delphi method). National and regional experts in health planning and field context management, as well as representatives of the leading actors were involved. All the stakeholders and members of the Delphi groups were selected on the basis of their expertise in the area of Public health, or because they could have relevant information about it.

The survey was carried out by some facilitators through face-to-face administration of

the questionnaire and the collection of experts' responses. In some cases, the questionnaire was sent via mail and the facilitator oversaw the interview telephonically during the compilation of the document by the expert. The responses were collected and analysed to determine conflicting viewpoints on each field. The process continued in order to work towards synthesis and consensus.

The Delphi method steps follow:
- Selection of the members for the Delphi panel according to their expertise.
- Preliminary meeting between Project Managers and the panel of experts.
- The interview process: the facilitator (member of the project team) contacted the expert telephonically to make an appointment for the piloted interview (face to face or on the phone). Each expert answered to the survey separately.
- Members of the project team were asked to share their assessment and explanation of each item of the five areas (Table 1).
- Development of the results and recall of experts to create a strategy with the aim of improving the quality of the tool.

For each answer, adequate time for reflection and analysis was given.

RESULTS

The answers were received by 9 out of the 12 invited respondents (response rate 75%).

Stewardship functions

Concerning Stewardship functions (Table 2), "Ensuring accountability" was the most important function reported by most of the experts interviewed (44.4%). Then followed "Formulating strategic policy influencing stakeholders", followed by "Ensuring tools for policies implementation" and, at the same level, "Knowledge-based management" (33.3% in first place and 22.2% in second); finally came the function of "Building coalitions and partnerships".

Function 1. Formulating strategic policy influencing stakeholders

Ensuring accountability is the area that best

TABLE 2

SCORE FOR STEWARDSHIP FUNCTIONS

STEWARDSHIP FUNCTIONS	SCORE
Formulating strategic policy influencing stakeholders	21
Ensuring tools for policies implementation	22
Ensuring accountability	24
Knowledge-based management	27
Building coalitions and partnerships	29

TABLE 3

SCORES FOR THE FIRST FUNCTION

FUNCTION 1: FORMULATING STRATEGIC POLICY INFLUENCING STAKEHOLDERS	SCORE
Measurement/evaluation needs/ performance	20
Accountability	23
Leadership	24
Culture of learning	26
Audit	34
Patient/citizen information and involvement	40

TABLE 4

SCORES FOR THE SECOND FUNCTION

FUNCTION 2: BUILDING COALITIONS AND PARTNERSHIPS	SCORE
Leadership	19
Patient/citizen information and involvement	20
Research and development	23
Audit	23

characterizes this function, and this item was placed first by 44% of the responders (Table 3).

Function 2. Building coalitions and partnerships

Leadership was identified as the most important function of Stewardship by 55% of the experts (Table 4). The involvement of citizen/

TABLE 5

SCORES FOR THE THIRD FUNCTION	
FUNCTION 3: ENSURING TOOLS FOR POLICIES IMPLEMENTATION	SCORE
Management resources and services	24
Quality systems	26
Culture of learning	27
Measurement/evaluation needs/performance	27
Information Systems	33
EBM/EBP	37
Accountability	40

TABLE 6

SCORE OF THE FOURTH FUNCTION	
FUNCTION 4: ENSURING ACCOUNTABILITY	SCORE
Accountability	15
Risk management	16
Information Systems	19
Audit	20

TABLE 7

SCORE OF THE FIFTH FUNCTION	
FUNCTION 5: KNOWLEDGE-BASED MANAGEMENT	SCORE
EBM/EBP	14
Information Systems	15
HTA	16

patient was the second most important. Less important were the area of Research and Audit.

Function 3. Ensuring tools for policies implementation

This function, characterized by the higher number of functions, is well described by 44.4% of the experts in the area "Resources Management and services" (Table 5). However 33% added that indications for aspects such as EBM/EBP, Culture of learning and

Measurement/evaluation needs/performance should be considered.

Function 4. Ensuring accountability

In this function (Table 6), Accountability and Information systems appeared as the most important for 55% of respondents, followed then by Risk management and Audit.

Function 5. Knowledge-based management

EBM/EBP and the Information Systems appeared as key elements of this function (Table 7).

Moreover, for each question, suggestions and comments about single items were collected. All data were integrated in the final version of the questionnaire.

DISCUSSION

Prevention in public health appears to be suffering from a lack of rigorous and replicable tools capable of assessing institutional and managerial aspects. These tools could be critical for the success of policies, at any level. As recently stated, the financial and economic crisis has amplified concerns over health system performance, sustainability and value for money. In particular, the crisis has highlighted the importance of well-functioning health systems and of the role of governments in safeguarding social solidarity, targeting improvements in health, and stimulating efficiency gains (19).

As stated by Novinskey and Federici (18) there is an absence of relevant data and information for the proper measurement of Stewardship.

Because it is a quite new field of interest, according to Travis et al. (14) there are no tools for looking at all the aspects of Stewardship. Attempts to assess its components have been made from several disciplinary perspectives. One attempt that could be made in this field, in WHO experts' opinion, is to start by simply describing what is being done in the name of Stewardship, and only determine what might be considered as "good" by analyzing the associations with differences in the performance of intermediate goals or outcomes. Another way could be to utilize surveys of governance, such as the Essential Public Health Functions

(EPHF). There are 48 indicators, plus around 120 measures leading to almost 700 specific questions. Most questions are answered on a simple yes/no basis to indicate the presence or absence of a particular feature (resource, practice, organizational entity) in the country concerned.

A recent study carried out a multidisciplinary review of the literature on Stewardship pertinent to the health sector and derived an operational framework from this review: a set of key questions, which could support policy-makers in assessing the completeness and the consistency of health system Stewardship functions. In the authors' opinion, the value of this framework is to propose an operational approach scoping out the different health system Stewardship functions and relating them, in practice, to national contexts and various health system goals. Moreover, they stated that the starting point is to assess the degree of consistency between the Stewardship model and national values.

We utilized the Delphi method, widely used for gathering data, opinions and finally consensus from a panel of selected experts.

In this case, the involvement of experts, competent in a specialized area of knowledge related to the target issue, has permitted us to develop a structured questionnaire (instead of an open-ended questionnaire) and to rely on a lower number of participants than usually recommended (usually between 15 and 20). However, the optimal number of subjects considered for a Delphi method never reaches a consensus in the literature.

The positive dimensions of Stewardship are predominantly tied to its potential for improving policy outcomes. The notion of Stewardship, if properly developed, is also consistent with an evidence-based health policy framework.

The introduction of Stewardship, as an institutional mechanism of governance in the relations between central government, regions and health agencies within the PNP, has created the conditions for an "empowered autonomy" of system actors. The proposed method will enable us to assess the level of its implementation, and to compare and propose actions for improving how stewardship is delivered. This could be essential for achieving the highest levels of quality in Public Health.

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