Received: 17 November 2021 | Revised: 17 February 2023 | Accepted: 8 March 2023

DOI: 10.1002/hpm.3632

RESEARCH ARTICLE

WILEY

The inequalities reduction through healthcare decentralisation in low-middle income countries: The case of Tunisia

Martina Giusti[1] | Alberto Romolini[2] | Niccolò Persiani[1]

[1]Department of Experimental and Clinic Medicine, University of Florence, Florence, Italy

[2]Faculty of Economics, International Telematic University UNINETTUNO, Rome, Italy

Correspondence
Martina Giusti.
Email: martina.giusti@unifi.it

Abstract

Healthcare decentralisation is a model of public service management founds on the wider distribution of the decisional power about healthcare. The decision power is split by central government also with the local health authorities. Since the 1980s, at worldwide level this reform has being applied for guaranteeing equity, efficiency, quality and financial sustainability in the healthcare services provision. In the last years, healthcare decentralisation is happening especially in low-middle income countries. With regard to the analysis of the effectiveness of decentralisation in healthcare, the obtained results are mixed. This study aims to investigate the contribution of management in the first steps of decentralisation's implementation for reducing health inequalities in Tunisia. To have the management's point of view, a survey was sent to all directors of the Tunisian regional hospitals. Health management was able to offer operative and timely solutions to the homogenisation and the improvement of healthcare services supply in Tunisia. For healthcare managers the guarantee of an equal and effective Tunisian healthcare system is into the application of a differentiated decentralisation. The differentiated decentralisation of healthcare system allows to resolve regional issues in Tunisia. These interventions permit to obtain consistent positive results about the satisfaction of

Tunisian population health needs. The differentiated decentralisation of healthcare system could also be useful for similar countries, for example, of MENA are of low-middle income countries.

KEYWORDS
decentralisation, equity, low-middle income countries, management, Tunisia

Highlights

- Health management should be involved in first steps of reforms` development.
- Health management proposes a differentiated decentralisation against inequalities
- Differentiated decentralisation offers solutions adapted to regional issues.
- Differentiated decentralisation gives consistent positive results.

1 | INTRODUCTION

In the last 40 years, healthcare decentralisation has spread globally, starting from in high-income countries, especially European nations,[1,2] to arrive in low-middle income countries of all continents in more recent years: Europe,[3] Asia,[4] Oceania,[5] Latin America and Africa.[6] Focussing on Africa, healthcare decentralisation has notably diffused in the countries of the sub-Saharan region[7] but, to the best of our knowledge, no studies have been conducted yet in the MENA (Middle East and North Africa) countries, where this reform is underway or about to be launched.

Healthcare decentralisation is founded on the redistribution of authority and governance from the central-high level to the peripheral-low level.[8] Shifting the centre of decision-making from the governmental to the territorial level makes it possible to gain a better understanding of the health needs of the population and to be more responsive by implementing specific health interventions in relation to contexts of application.[9,10]

Political assets, availability of resources and geographic differences between territories are the main problems which influence the effectiveness of healthcare decentralisation.[11]

Regions request to central level more responsibility and autonomy to reduce inequalities in assistance and to ensure the right service at the right time and in the right place[12] and pay attention to a careful use of resources for the economic sustainability of the health system.[13] The guarantee of health services provision is tied to the cost-effectiveness optimisation of the related process.[14]

The large diffusion of health decentralisation led scholars to question its effectiveness, especially in low-middle income countries, regarding the possible consequences due to the greater administrative, political and economic fragility of these countries.[15,16]

Decentralisation reform theoretically offers a concrete contribution to resolve issues attributable to the presence of health inequities in terms of access equity, treatment quality and economic sustainability[17] among regions of the same country. Past research concerning the effectiveness of the adoption of a decentralised system of health governance has not driven to a single definitive position adopted by scholars. They have identified both positive and negative aspects. Most of the studies focused on the ex-post analysis of the obtained results[18,19] instead of investigating the pre-existing conditions of health systems,[20] which directly influence the impact of decentralisation reform. Moreover, all of these studies analysed the overall results of the reform from the point of view of users,[21] doctors[22] and local communities.[23] However, the managerial perspective has not yet been sufficiently deepened.[24,25]

Therefore, with a view to filling this information gap, it is interesting to carry out an a priori assessment of the pre-existing conditions from the point of view of healthcare management.

Considering the discovered gaps, the purpose of this research is to analyse the contribution of healthcare system decentralisation in the reduction of health inequalities from the managerial perspective in low-middle income countries. In terms of achieving this goal, Tunisia is a relevant case study as a representative example of the emerging economy of MENA area, where no studies on the topic have been previously realised.

This article is structured as follows. After a review of the previous scientific studies, we proceed to describe the methodology employed and to present the case study. Subsequently, the collected data is presented and discussed, enforcing the implication for health management, decision-makers and researchers. Finally, the conclusions of the research are discussed.

2 | THE THEORETICAL BACKGROUND OF THE HEALTHCARE SYSTEM DECENTRALISATION

Since the 1980s, healthcare decentralisation has been adopted in high-income European countries such as Italy,[12] Spain[14] or Scandinavian countries,[26] where this reform was identified as the best approach to redistribute and enforce the role and the power of the local health authorities for the peripheral and optimal governance of local health needs.[1]

With the acknowledgement of health rights in low-middle income countries, in more recent years, health decentralisation has also been adopted in Latin America,[27] Nepal,[28] Pakistan,[29] and Indonesia,[15] among others. Healthcare decentralisation has been most used in Africa, where it is notably diffused in the countries of the sub-Saharan region, such as Ghana,[30] Kenya[31] and Burkina Faso.[32] However, we observe a lack of studies concerning the adoption of health decentralisation in the MENA area, despite there being a programme in Tunisia to apply decentralisation, especially in the healthcare sector. Thus, an information gap emerges which needs to be filled.

The interest reserved for health decentralisation is due to its widespread application all over the world for the attributed effectiveness in the reduction of inequalities (equal use and provision of health services to eligible people)[13,19] and the improvement of performance (optimisation of management of allocated resources and enlargement of decision-making).[33] The process of decentralisation generally supports the transfer of authority and responsibility in the public planning, management and organisation from national or higher levels of government to sub-national or lower levels.[34]

Bossert[8] recognised as the main feature of decentralisation the creation of a wider decisional asset, which also engaged the territory. He called it 'decisional space': it is the power created in the passage of a certain quota of responsibility and authority from the centre to the periphery with the redistribution of a set of functions and the assumption that the decisional role has been given also to personnel of local realities, depending on the specific decentralisation actions carried out. Vrangbaek[35] resumed and deepened the concept of decisional space forwarded by Bossert,[8] explaining the variables that determine the optimal degree of decentralisation to balance autonomy and power between local and central authority:

- *Geography and socio-demographic aspects* as the level of potential autonomy, which varies with size and socio-economic composition.
- *Political decision structure* as the formal structure for the assumption of the decision, the composition of the decisional group and the degree of openness and transparency.
- *Functions and economic importance* refer to the portfolio of different tasks, whereby, in healthcare, it is useful to distinguish between delivery, financing, and regulatory functions.
- *Steering* refers to the leadership adopted by the central political or administrative levels.
- *Control* to obtain information about the reliability of governance and the rationality of the decision.

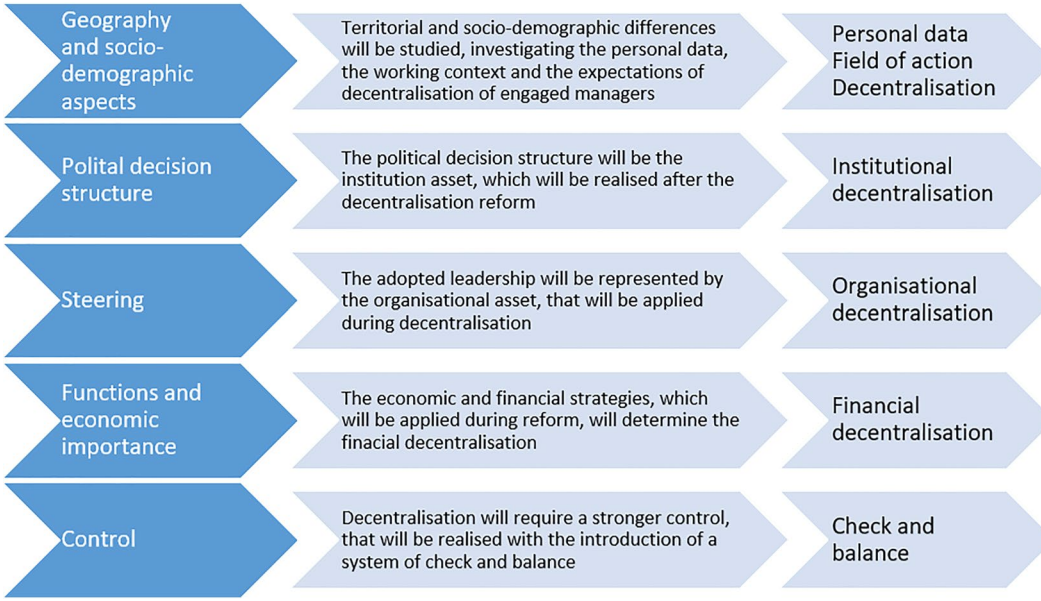

FIGURE 1 Vrangbæk's assessment of decentralisation and relative variables to analyse. [Colour figure can be viewed at wileyonlinelibrary.com]

Each variable and its combinations characterise the application of every decentralisation process and the obtained outcomes. Moreover, the variables represent the pre-existing conditions, which influence the effectiveness of decentralisation and should be managed to guarantee the effectiveness of the reform.[36]

Scholars have focussed on the impact of pre-existing conditions on the effectiveness of health decentralisation in the reduction of inequalities and have obtained mixed results studying the positive incidence of this reform.[11,37]

Alves[38] highlighted that better health outcomes were achieved in decentralised healthcare system but with higher expenditures, compromising the effectiveness of the reform. On the other hand, Arends[39] affirmed the opposite, that is, that with the decentralisation it is possible to obtain a better performance of the system by containing the expenses. Instead, the decentralisation of the healthcare systems gave only a minimum contribution in the improvement of equity in health for Koivulaso[40] because it exacerbated the local differences between various regions. It emerges the topic of inequality is central in health decentralisation reform because the lack of equity betrays expectations. From this perspective, some studies have been carried out to identify and analyse factors which directly influence the reduction or otherwise of equity in health systems after their decentralisation. For Sumah,[20] according to Mitchell and Bossert,[36] the success or the failure of the health decentralisation reform in the reduction of inequities is due precisely to the management of the political, social and economic pre-existing conditions and to the finding of the good degree of decentralisation.

Central coordination must be ensured to realise the efficacy actions of monitoring and to apply corrective interventions in the case of imbalances between fixed purposes and achieved outcomes.[30] While the local level plans and decides interventions according to its specific possibilities, starting from the analysis of the population's health needs, central government coordinates the different health realities at local level and uniforms treatments at national level to guarantee the right to health for all and to reduce inequalities.

Given the lack of this review, we decided to study a priori the decentralisation process, starting from the areas of interest derived from the Vrangbæk variables,[35] which determined the pre-existing conditions (see Figure 1).

In the literature, it has been more deeply explored how these pre-conditions affect the solidity of governments and those governments' wealth, distinguishing between high and low-middle income countries.

If the high-income countries succeed in rebalancing residual inequalities a posteriori of health decentralisation due to the presence of solid governments,[41] the same situation does not happen in medium-low income countries,

where the instability characterises not only the organisational and financial dimensions, but also the institutional structure.[42]

To overcome these difficulties in low-middle income countries, there is a promotion of the strengthening of administrative structure, and training people at the local level on technical aspects of the process of decision-making.[43] This upgrade request is especially delivered to managers of healthcare systems for their responsibility in the control of the equal provision of local services and for their role as leader in the promotion of the reform in terms of internal culture.[10] At the same time, the engagement of the stakeholders is promoted to strengthen the relationship between needs and their full satisfaction by health systems. Mockford[20] supported the patient and public improvement to identify tools and apply said tools to generate an evidence-based evaluation of the impact generated by healthcare systems for their direct fruition. Instead, Rifkin[44] underlined the role of community in the definition of health outcomes. Citizens are usually engaged in the identification of health outcomes, proposing general solutions and not needing organisational and management interventions to overcome the present difficulties. However, these skills are owned by managers of health structures. They are able to identify the problems and the possible solutions for their deep knowledge of the internal and external context of action of healthcare system.[10]

The impact of health management in the planning of health decentralisation needs to be studied more in depth to find a possible solution and to obtain unique results in the effectiveness evaluation of this reform, especially in terms of equity improvement.

3 | METHOD

After the literature review, case study was deemed the best methodology to use for this paper. The use of case study as a reference method is useful for the explorative scope of this paper, which will investigate the possible contributions to optimise the development and application of decentralisation in the healthcare sector and thus strengthen equity. Instead the case study approach allows for the deep comprehension of the selected reality and makes it possible to generalise the results of the study, extending their validity to similar situations.[45,46]

The lack of studies regarding healthcare decentralisation in the MENA area has led to Tunisia being identified as a significant case study. Instead, this country is about to initiate a structural decentralised reorganisation of governance state, starting from the administrative 10 years ago.[47] Currently particular attention is paid to the healthcare system decentralisation. Consequently, the research identified as relevant specimens the 31 directors of Tunisian regional hospitals in order to analyse the effectiveness of healthcare decentralisation from the managerial perspective, given the leading role that they will be assume after the decentralisation process with the redistribution of health governance at the local level.

To investigate the effectiveness of healthcare decentralisation, a questionnaire was submitted to the managers of regional hospitals involved in the reorganisational process of the Tunisian healthcare system.[48] The questionnaire was structured in six sections (each containing seven questions), according to the topic of the theoretical framework by Vrangbæk[35] for the assessment of health decentralisation. Closed-ended questions were presented using a 5-point Likert scale (Appendix 1). The first section collects data about the experience, the studies and the working context of directors (geography and socio-demographics) and explores their position with regard to the general process of decentralisation. The second, third and fourth sections focus on institutional (political decisional structure), organisational (steering) and financial (functions and economic importance) decentralisation. Finally, the sixth section addresses the advantages related to the possible future implementation of a system of check and balance in the Tunisian healthcare system. The questionnaire, created on Google Forms to optimise and simplify its use from all devices, was administered through email between July and August 2020. The data collection lasted 4 weeks.

All in all, 25 out of 31 directors responded to the questionnaire, representing 81% of the population surveyed. Given the high percentage of respondents in the general reference population and the representativeness of each governorate of Tunisia, the sample is significant and representative of the considered population.

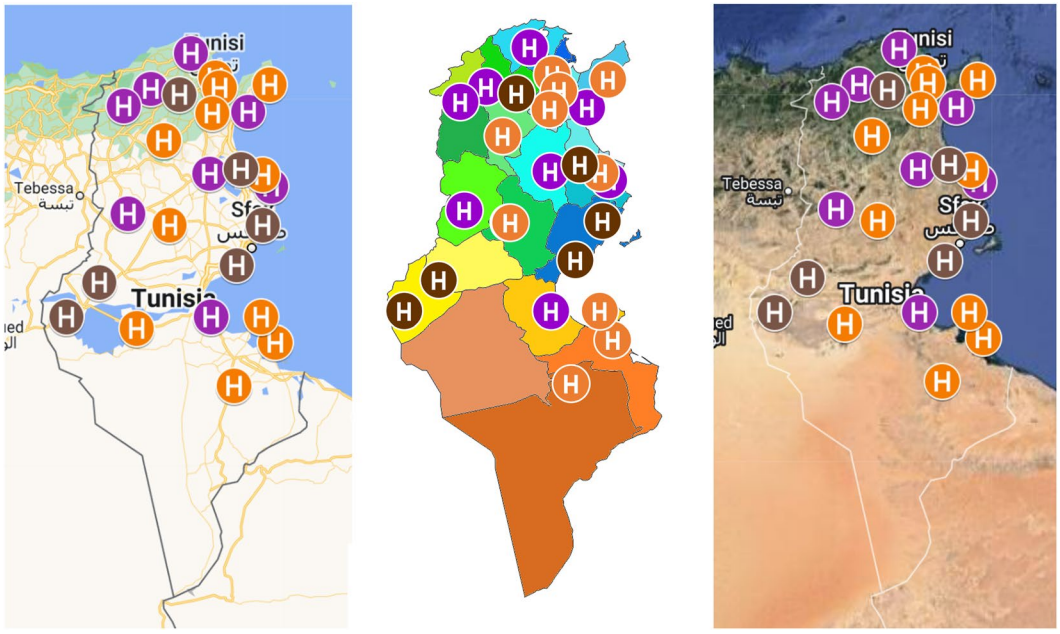

FIGURE 2 Distribution of regional big (purple), medium (orange) and small (brown) hospital in geographic, regional (South in red, Inland in green and Coast in blue) and morphological maps of Tunisia. [Colour figure can be viewed at wileyonlinelibrary.com]

The scores of the closed-ended questions were analysed as follows: answers 5 and 4 were considered positive scores, and 3 was seen as neutral, while 1 and 2 were negative. In the paper we reported the sums of the percentages relating to the positive (5 and 4), neutral (3) and negative (2 and 1) votes in order to facilitate the understanding of results.

Moreover, all information obtained from the answers to the questionnaire was segmented according to the traditional regions into which Tunisia is divided[49] (Figure 2).

The reference regions are coast (Blue area: governments of Bizerte, Tunis, Ariana, Ben Arous, Manouba, Nabuel, Zaghouan, Sousse, Mmonastir, Mahdia, Sfax), inland (Green area: governments of Beja, Kef, Siliana, Joundouba, Kairouan, Kasserine, Sidi Bouzid) and south (Red area: governments of Gabès, Medenine, Gafsa, Tozeur, Tataouine, Kebili). These regions differ on the geographic conformation of the territory, the population density and the quality of the healthcare services.

4 | THE CASE STUDY TUNISIA

4.1 | Decentralisation of the Tunisian public healthcare system

Decentralisation of the state of functions is provided as a priority action in the new Tunisian Constitution approved on 26 January 2014. The public sectors in which decentralisation will firstly apply in Tunisia are public administration and healthcare.

The revolutionary movement has loudly demanded the institution of national universal health coverage, which would make it possible to overcome the current inequalities when it comes to accessing healthcare services, especially due to restricted financial resources.[50]

The Tunisian government has responded to the request for provision of healthcare by declaring it a right for all citizens and starting the process of decentralisation for its national healthcare system. The scope is to have a national

healthcare system, which is equitable, participatory and efficient.[51] The effectiveness of decentralisation is judged on its modulation in relation to the specific needs of the Tunisian districts, its correction of some of the regional injustices/differences, and on its ability to collaborate with local organisations.[52]

Tunisia has a public insurance health system, funded from taxation run by the Caisse Nationale d'Assurance Maladie, which provides care for most of the population. The healthcare service includes three levels of assistance[53]:

- Primary care with a network of 2157 primary health centres, 108 circumscription hospitals,
- Haemodialysis centres, and 28 basic healthcare groupings.
- Second level of care with 31 regional hospitals.
- Third level with 27 university hospitals and nine specialist centres.

Although today the public system manages 87% of hospital beds, there is a strong presence of private hospitals (98 private clinics, 117 haemodialysis centres, 510 outpatient clinics and 2037 pharmacies), mainly concentrated in large cities.[54]

A 2015 survey led by the National Institute of Statistics[55] indicated a 54% national average of non-satisfaction of the citizens regarding the services provided: 79% in South-West areas versus 42% in those in the Centre-East. The high percentage of non-satisfaction is related to drug shortages, long waiting times, and lack of prepared medical staff. In total, 41% of citizens pointed out long waiting times for a needed surgical intervention and 40% cited a lack of respect on the part of the health staff.

Traditionally Tunisia is divided geographically, demographically and economically into three areas (Figure 2): cost, inland and south.[49] The same healthcare system organisation reflects this specific characterisation with different healthcare system levels.

4.2 | Professional data and the working context of the specimen

The specimen chosen as point of view on the decentralisation reform in Tunisia is composed by 25 of 31 director of the regional hospital in Tunisia. The regional hospitals represent the second level of assistance of the Tunisian healthcare system, with a medium level of complexity according to the applied technological equipment and the structural and professional standards.

Among the 25 general managers of the regional hospitals, 58% have achieved a bachelor's degree, 36% possess a diploma from the national school in public administration and 8% have a PhD. It emerges the training of the directors is not purely medical but also of economic and legal context. Moreover 28% of the respondents had gained study experience abroad, functional to the knowledge of other welfare state.

68% of the directors had been working for less than 3 years in the current hospital, while 76% have already had previous experience. It can be concluded that the staff called to employ to manage Tunisian regional hospitals in the role of director are trained and experienced.

86% are directors of standard regional hospital in the 86% of cases, while the remaining 14% are directors of regional hospital, which are about to be converted in university hospitals (Kairouan, Mahdia and Nabeul).

Among the hospitals represented by their directors, 32% are large hospitals (>= of 300 beds), 44% medium-sized (from 299 to 101 beds) and 24% small (>= 100 beds). Here it is excellent the diffusion of urgency units (100%), laboratory services (100%), diagnostic imaging departments (96%) and birth points (92%), while there is an absolute lack of oncology units (16%) and geriatrics units (12%). There is not a uniform distribution of services in the national territory terms of the location of regional hospitals and the services offered, with more concentration in the coastal region.

The Tunisian local health system is strongly represented by the sample because respondent directors came from all the governorates, where there are regional hospitals.

5 | RESULTS

5.1 | Institutional decentralisation

Institutional decentralisation is highly appreciated, as it would make it possible to guarantee and standardise equal access to the health service (82%) and to the equal distribution of health services' supply in the whole national territory (76%), starting from the mapping of the population's health needs and the joint planning for their satisfaction between local authorities or local and national levels.

The institutional decentralisation, such as a closer relationship with local authorities, is supported above all by 91% of the coastal health management but also by 58% of the hinterland management and 72% of the south. If the firsts favour institutional decentralisation for the development of a joint planning between central and local health authorities (73%), the seconds promote this approach for the expectations to guaranteed across the whole country the same equity, equality and quality in healthcare service supply (100%). Instead for the south mangers the urgency to solve the lowest level of quality of services, the unguaranteed equity of access, and the scarce competencies of the administrative staff makes impossible to reinforcing the policing of the territory in collaboration with the local institutions (57%).

Among the proposed benefits, the joint nomination of hospital CEO between government and local level has received the greatest consensus (68%), followed by the major autonomy of the territories in the agreement with the private sector (64%) and the impact of local decision-makers on hospital financing (60%).

5.2 | Organisational decentralisation

Tunisian managers consider all the possible organisational repercussions of decentralisation valid opportunities for the strengthening of the national health system. This is likely due to the direct acquisition of greater managerial autonomy, with managers able to free themselves from the bureaucratic ties imposed by the central government and apply more innovative internal management approaches, strongly orientated around performance and quality.

Healthcare managers support (84%) the establishment of effective hospital management, which must necessarily correspond to the assumption of greater autonomy by local hospitals for a full governance of the health system.

In terms of the possible positive results of decentralisation reform, 90% of the respondents refer to a greater organisational and managerial autonomy for regional hospital structures, 84% allude to the development of the hospital-territory complementarity to enlarge its network, and 80% cite the independence of regional hospitals in managing their budgets.

The appreciation of the inland top management is at its maximum for every aspect of the organisational decentralisation (100%). The coast (81%) managers are particularly appreciative of a greater organisational and managerial autonomy for the increased integration between hospital and territory (91%). With regard to the economic and organisational fragility of the regional hospitals, the south managers (58%) seem to fear too much autonomy, while they recognise the possible benefits, especially in terms of the opportunity for independent budget management in regional hospitals (71%).

Moreover, 76% also express appreciation for the creation of a public health school which can meet the training needs emerging during and after the decentralisation reform.

5.3 | Financial decentralisation

The top management of Tunisian regional hospitals do not feel that the financial decentralisation can influence the reduction of the differences between territories (59%) or the improvement of investment planning at local level

(59%) in a significant way. The redistribution of resources could be more effective in a decentralised health system but, nevertheless, they suggest a joint definition of the budget between central and local authorities (80%) and the budget negotiation between the ministry and local authorities on separate billing ceilings for a specific service (80%).

Inland (72%) and coast (63%) managers evaluate the financial decentralisation as an opportunity to achieve a fair redistribution of resources throughout the national territory (I 100%; C 82%) and to have an allocation of resources according to real territorial needs (I 100%; C 81%). This is not so for the south managers (43%), who do not believe they can obtain the same benefits in terms of reducing the differences in the distribution of resources in the territories (58%) and improving the investment planning system (57%) for the lack of an adequate culture of spending.

If the transfer of the tariff decision system at local level is scarcely relevant for all (I 72%, C 63%; S 57%), recognising the strategic role of central government in this task, attention should be paid to the general strong appreciation of the establishment of local authorities (I 100%; C 81%; S 85%) in charge of mapping health needs and defining the appropriate rates for the services provided.

To support the weakest sections of the population, who currently do not have access to the health service, and the poorest regions, the creation of a financing fund for the most disadvantaged (80%) and the institution of 'local authorities' (65%), in charge of mapping health needs and defining service, have been proposed.

5.4 | Mechanism of *check and balance*

An important point here, which emerged during the analysis of the results on institutional decentralisation, is that the effective implementation of decentralisation cannot be separated from the establishment of a system for audit (88%), evaluation of hospital's performance (88%) and quality control at national level for the top management of healthcare (76%).

The application of these controls is necessary for managers to assure the balance of power between central and local government, recognising the role of surveillance of central government. Indeed, the governmental level is the guarantor of the right to health of the entire population and of the equity of access to, and treatment received from, the Tunisian NHS.

In this regard, the introduction of the following controls is also proposed to place the control where it does not yet exist:

- regional and local monitoring committees (84%)
- assessment System for Hospital Directors and Boards of Directors (76%)
- sector regulations for purchasing in the health sector (76%)
- monitoring and regulation system of health expenditure at the local level (84%)

There is wide support for the establishment of a system of audits and controls at national level by all regions (I 82%; C 100%; S 85%). The absence of a control culture is evident for the managers of all areas, who promote the development of a performance evaluation system for hospitals (I 86%; C 91%; S 86%) and a system to control the quality of the provided services (I 86%; C 91%; S 85%) at national level. These projects seem to be a starting point at the beginning of educating and training the healthcare administrative sector from the perspective of management culture. The south managers instead refer to their area's absolute lack of experience in the structuring of monitoring and control of the healthcare realities, requiring strong support and accompaniment by the governmental level in the training process of the region's administrative personnel to implement these processes.

6 | DISCUSSION

The impact of health decentralisation was extensively debated due to the ambiguity of the produced results.[11] In fact, the effectiveness of decentralisation is linked both to the pre-existent socio-economic and political conditions

and to the specific ways in which it is declined. The best degree of decentralisation is defined by the characteristics of the intervention's realities and their health needs.[20] In this paper, the assessment of the first phases of decentralisation planning was conducted with the involvement of the directors of the regional hospitals, the few professionals prepared to support this reform, so as to use their deep knowledge of the Tunisian healthcare system's characteristics and organisation.[10,24]

The directors of the regional hospitals have expressed their assessment in relation to their deep knowledge of the context of action.[51] Starting from the current configuration of the Tunisian NHS, with significant differences between coast, inland and south in healthcare organisation, they propose the application of differentiated decentralisation, which will reduce the inequities between the different territories in terms of access to services and their availability, the quality of the provided services, and optimisation of health outcomes.[35,56] In compensating for the main heterogeneities between the territories, the common bases will be laid for the uniform redistribution of decision-making and responsibility between all areas.[57,58]

Tunisian healthcare management emphasise the absolute need to start the decentralisation reform with the establishment of a strong control system both at local and national level.

It guarantees the standardisation of the procedures to be adopted and followed in the governance of health realities and common evaluation criteria, permitting the effective benchmarking between the realities and the identification of real excellences and criticalities of local health authorities. This homogenisation of monitoring and control mechanisms creates favourable conditions for effective organisational and institutional decentralisation of the national healthcare system. Indeed, each regional healthcare reality is called to compete for its own affirmation, optimising the use of its resources, not only economic but also professional, and its skills for the effective internal government and the external one (the socio-political asset of the territory of affiliation).[59]

Financial decentralisation, although it seemed the main reason for reforming the Tunisian health system, has been less successful than the institutional and organisational versions, because the field of government and distribution of economic resources is recognised at the central level, as a guarantor of fair and homogeneous distribution of resources at national level, according to the real needs of each region.[37]

6.1 | Implications

6.1.1 | For health management of low/middle income countries

The advantages to improve managers in the development of the reform for the decentralisation is the possibility to find applicable managerial and organisational solutions to respond to real health, in relation to the characteristics of each territory.[10]

The suggested solution responds not only to Tunisian healthcare difficulties, but also to similar problems in the other low-middle income countries.[15,43] In this way, it is possible to overcome the ambiguity of the results of health decentralisation identified in the literature review and put forward concrete proposals for its application in relation to the specific context of action.

Moreover, it is proposed to set up specific local health authorities to support regional hospitals in health planning at local level. These realities have the task of taking care of relations and collaboration with local administrative institutions for a joint programing of health activities in relation to the characteristics, the culture and the socio-health needs of the population.[41]

6.1.2 | For policy makers

The top management of regional hospitals in all low-middle income countries, including Tunisia, loudly request a direct and constructive dialogue with politic assets (from local governors to the Ministry of Health) to design and

build together a new differentiated decentralised national health system, which will be effective and equal to achieve the full satisfaction of the health needs of people, regardless of where they reside.[8]

Indeed, the top health managers can bring in evidence regarding the concerns and strengths related to decentralisation in the first phases of its application and draw strategic guidelines to immediately overcome those obstacles. This reduces the possibility of having to resort in a second moment to corrective interventions, which can be late and not very effective.

Government leaders must necessarily exploit the field experience of the hospitals' directors, as well as virtuous examples of resilience and effectiveness, and enhance these with their involvement in the planning, application and monitoring of health decentralisation reform. Managers have analysed and tested every aspect of their own healthcare system, enhancing the role of excellence and governing critical issues. They can resolve, in the short-medium term, organisational problems thanks to the strong and diffused control applied to processes under their governances, without the exacerbation of the presented difficulties.[11,20]

Policy makers need to understand that the contribution of hospital managers in the healthcare system's development, organisation and control is an essential prerequisite for the implementation of an effective health decentralisation, including its monitoring and the possible immediate application of effective and punctual corrective actions.[10]

6.1.3 | Implication for researchers

The role of the central government as guarantor of the harmonicity of the provision of health services throughout the national territory is recognised. According to the literature, the effectiveness of decentralisation is based both on the correct management of pre-existing conditions[20] and on the identification of the right degree of decentralisation to be implemented for the balance of power between the central and peripheral levels of governance.[35] In this regard, there is the explicit request by health management for the establishment of a solid and structured check and balance mechanism between central and local authorities, guaranteeing the control and the evaluation of the work of the decentralised structures by the national level. This aspect is particularly significant in Tunisia, as in countries of the MENA area and, generally, in low-middle income countries all over the world. The exit from a rigid undemocratic centralised system towards a decentralised democratic system has rendered the traditional top-level decision-making systems ineffective and the rigid bureaucratic control mechanisms inapplicable.[52] Therefore, the new system is imposing a rethink of these old balancing systems, which will have to be based more properly on diffused management logic.

Finally, this study has underlined to researchers how the implementation of a process of differentiated health decentralisation, especially in low-middle income countries such as Tunisia, with political instability and a growing economy, cannot ignore the decentralisation's joint and shared programing with top health management—the protagonist of this process.[60] The evaluation of possible emerging critical issues a priori reduces the possibility of making the same mistakes as those made 40 years ago, when starting the decentralisation of healthcare systems in high-income countries. The evaluation of the effectiveness of the decentralisation reform of the results is late and does not permit the implementation of tempestive effective corrective actions of the reform process, which is now taking root in the administrative-management culture of the health sector.[59]

7 | CONCLUSIONS

Healthcare managers support differentiated decentralisation because it can effectively contribute to reducing the pre-existing gaps between different regions in the satisfaction of the population's health needs. Each region of Tunisia will be able to autonomously govern its own healthcare, guaranteeing the right to health of its own citizens by operating in an economic, efficient and effective way. In this way, the equity and the quality of the Tunisian healthcare

systems are guaranteed enhanced over time by the continuous improvements of the organisation and administrative assets of local health organisation promoted by managers. The same opportunity can be enjoyed by all the countries with similar problems, adopting the same approach of healthcare decentralisation.

7.1 | Limits and future developments of the research

The lack of involvement of health middle management is a limit of this research in relation to the engagement of all actors which will have responsibility after decentralisation of the healthcare system. Moreover, the same study should be carried out across several emerging countries engaged in the same reform, and with different health financing systems, so as to reinforce the obtained results and verify the significance of their generalisation.

ACKNOWLEDGEMENTS

This research could be developed for the relevant commitment of the Department of Experimental and Clinic Medicine of the University of Florence in the international health cooperation of the Tuscany Region promoted by the Global Health Centre. In particular, this research group participated to the project 'Future Proche', in which the aim was the institution building of the national healthcare system in Tunisia. The contact of all director of the Tunisian regional hospitals was relatively easy because they are the same learners of a training activity in this project.

Open Access Funding provided by Universita degli Studi di Firenze within the CRUI-CARE Agreement.

DATA AVAILABILITY STATEMENT

The data, that support the findings of this study, are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

Not applicable.

ORCID

Martina Giusti https://orcid.org/0000-0001-7942-2393

REFERENCES

1. Saltman RB, Bankauskaite V. Conceptualizing decentralization in European health systems: a functional perspective. *Health Econ Pol Law*. 2006;1(2):127-147. https://doi.org/10.1017/s1744133105001209
2. Simonet D. Healthcare reforms and cost reduction strategies in Europe: the cases of Germany, UK, Switzerland, Italy and France. *Int J Health Care Qual Assur*. 2010;23(5):470-488. https://doi.org/10.1108/09526861011050510
3. Menon S. Decentralization and health care in the former Yugoslav Republic of Macedonia. *Int J health Plan Manag*. 2006;21(1):3-21. https://doi.org/10.1002/hpm.823
4. Panda B, Thakur HP. Decentralization and health system performance–a focused review of dimensions, difficulties, and derivatives in India. *BMC Health Serv Res*. 2016;16(6):1-14. https://doi.org/10.1186/s12913-016-1784-9
5. Mohammed J, North N, Ashton T. Decentralisation of health services in Fiji: a decision space analysis. *Int J Health Pol Manag*. 2016;5(3):173-181. https://doi.org/10.15171/ijhpm.2015.199
6. Willis K, Khan S. Health Reform in Latin America and Africa: decentralisation, participation and inequalities. *Third World Q*. 2009;30(5):991-1005. https://doi.org/10.1080/01436590902969742
7. Gilson L, Mills A. Health sector reforms in sub-Saharan Africa: lessons of the last 10 years. *Health Pol*. 1995;32(1-3):215-243. https://doi.org/10.1016/0168-8510(95)00737-d
8. Bossert T. Analyzing the decentralization of health systems in developing countries: decision space, innovation and performance. *Soc Sci Med*. 1998;47(10):1513-1527. https://doi.org/10.1016/s0277-9536(98)00234-2
9. Saltman R, Busse R, Figueras J. *Decentralization in Health Care: Strategies and Outcomes*. McGraw-hill education (UK); 2006.
10. Ohrling M, Øvretveit J, Brommels M. Can management decentralisation resolve challenges faced by healthcare service delivery organisations? Findings for managers and researchers from a scoping review. *Int J Health Plan Manag*. 2021;36(1):30-41. https://doi.org/10.1002/hpm.3058

11. Abimbola S, Baatiema L, Bigdeli M. The impacts of decentralization on health system equity, efficiency and resilience: a realist synthesis of the evidence. *Health Pol Plann*. 2019;34(8):605-617. https://doi.org/10.1093/heapol/czz055
12. Nuzzo A, Anessi Pessina E, Carle F. Processo di decentramento del SSN ed evoluzione dell'equità interregionale nell'assistenza sanitaria nel periodo 2001-2012. *MECOSANFr Angeli Ed*. 2018(108):9-34. https://doi.org/10.3280/mesa2018-108002
13. Rakmawati T, Hinchcliff R, Pardosi JF. District-level impacts of health system decentralization in Indonesia: a systematic review. *Int J health Plan Manag*. 2019;34(2):e1026-e1053. https://doi.org/10.1002/hpm.2768
14. Costa-Font J, Gil J. Exploring the pathways of inequality in health, health care access and financing in decentralized Spain. *J Eur Soc Pol*. 2009;19(5):446-458. https://doi.org/10.1177/0958928709344289
15. Cheema GS, Rondinelli DA. *Decentralization and Development: Policy Implementation in Developing Countries*. Sage Publications; 1983.
16. Smith BC. The decentralization of health care in developing countries: organizational options. *Publ Adm Dev Int J Manag Res Pract*. 1997;17(4):399-412. https://doi.org/10.1002/(sici)1099-162x(199710)17:4<399::aid-pad976>3.0.co;2-p
17. Mills A, Vaughan JP, Smith DL, Tabibzadeh I. *Health System Decentralization: Concepts, Issues and Country Experience*. World Health Organization; 1990.
18. Omar M. Health sector decentralisation in developing countries: unique or universal. *World Hosp Health Serv*. 2002;38(2):24-30.
19. Cobos Muñoz D, Merino Amador P, Monzon Llamas L, Martinez Hernandez D, Santos Sancho JM. Decentralization of health systems in low and middle income countries: a systematic review. *Int J Publ Health*. 2017;62(2):219-229. https://doi.org/10.1007/s00038-016-0872-2
20. Sumah AM, Baatiema L, Abimbola S. The impacts of decentralisation on health-related equity: a systematic review of the evidence. *Health Pol*. 2016;120(10):1183-1192. https://doi.org/10.1016/j.healthpol.2016.09.003
21. Dalton J, Chambers D, Harden M, Street A, Parker G, Eastwood A. Service user engagement in health service reconfiguration: a rapid evidence synthesis. *J Health Serv Res Pol*. 2016;21(3):195-205. https://doi.org/10.1177/1355819615623305
22. Mockford C, Staniszewska S, Griffiths F, Herron-Marx S. The impact of patient and public involvement on UK NHS health care: a systematic review. *Int J Qual Health Care*. 2012;24(1):28-38. https://doi.org/10.1093/intqhc/mzr066
23. O'Meara WP, Tsofa B, Molyneux S, Goodman C, McKenzie FE. Community and facility-level engagement in planning and budgeting for the government health sector–A district perspective from Kenya. *Health Pol*. 2011;99(3):234-243. https://doi.org/10.1016/j.healthpol.2010.08.027
24. Bloom N, Van Reenen J. Why do management practices differ across firms and countries? *J Econ Perspect*. 2010;24(1):203-224. https://doi.org/10.1257/jep.24.1.203
25. Marchal B, Dedzo M, Kegels G. A realist evaluation of the management of a well-performing regional hospital in Ghana. *BMC Health Serv Res*. 2010;10(1):1-14. https://doi.org/10.1186/1472-6963-10-24
26. Byrkjeflot H, Neby S. The end of the decentralised model of healthcare governance? Comparing developments in the Scandinavian hospital sectors. *J Health Organisat Manag*. 2008;22(4):331-349. https://doi.org/10.1108/14777260810893944
27. Bossert T, Larrañaga O, Ruiz Meir F. Decentralization of health systems in Latin America. *Rev Panam Salud Públic*. 2000;8(1-2):84-92. https://doi.org/10.1590/s1020-49892000000700011
28. Regmi K, Naidoo J, Pilkington PA, Greer A. Decentralization and district health services in Nepal: understanding the views of service users and service providers. *J Publ Health*. 2010;32(3):406-417. https://doi.org/10.1093/pubmed/fdp116
29. Bossert TJ, Mitchell AD, Janjua MA. Improving health system performance in a decentralized health system: capacity building in Pakistan. *Health Syst Reform*. 2015;1(4):276-284. https://doi.org/10.1080/23288604.2015.1056330
30. Sumah AM, Bowan PA, Insah B. Decentralization in the Ghana health service: a study of the upper west region. *Develop Countr Stud*. 2014;4(12):45-52.
31. Tsofa B, Molyneux S, Gilson L, Goodman C. How does decentralisation affect health sector planning and financial management? A case study of early effects of devolution in Kilifi County, Kenya. *Int J Equity Health*. 2017;16(1):1-12. https://doi.org/10.1186/s12939-017-0649-0
32. Zon H, Pavlova M, Groot W. Regional health disparities in Burkina Faso during the period of health care decentralization. Results of a macro-level analysis. *Int J health Plan Manag*. 2020;35(4):939-959. https://doi.org/10.1002/hpm.2979
33. Faguet JP. Decentralization and governance. *World Dev*. 2014;53:2-13. https://doi.org/10.1016/j.worlddev.2013.01.002
34. Bankauskaite V, Saltman RB. Central issues in the decentralization debate. *Decentralization Health Care*. 2007;9.
35. Vrangbæk K. Towards a typology for decentralization in health care. *Decentralization Health Care strategies outcomes*. 2007:44-60.
36. Mitchell A, Bossert TJ. Decentralisation, governance and health-system performance: 'Where you stand depends on where you sit'. *Dev Pol Rev*. 2010;28(6):669-691. https://doi.org/10.1111/j.1467-7679.2010.00504.x
37. Collins C, Green A. Decentralization and primary health care: some negative implications in developing countries. *Int J Health Serv*. 1994;24(3):459-475. https://doi.org/10.2190/g1xj-px06-1lvd-2fxq

38. Alves J, Peralta S, Perelman J. Efficiency and equity consequences of decentralization in health: an economic perspective. *Revista Portuguesa de Saúde Pública*. 2013;31(1):74-83. https://doi.org/10.1016/j.rpsp.2013.01.002
39. Arends H. More with less? Fiscal decentralisation, public health spending and health sector performance. *Swiss Political Sci Rev*. 2017;23(2):144-174. https://doi.org/10.1111/spsr.12242
40. Koivusalo M, Wyss K, Santana P. Effects of decentralization and recentralization on equity dimensions of health systems. In: Salt-man RB, Bankauskaite V, Vrangbaek K, eds. *Decentralization in health care*. McGraw-Hill. Open University Press (Euro-pean Observatory on Health Systems and Policies Series); 2007:189-205.
41. Atkinson S, Medeiros RL, Oliveira PH, de Almeida RD. Going down to the local: incorporating social organisation and political culture into assessments of decentralised health care. *Soc Sci Med*. 2000;51(4):619-636. https://doi.org/10.1016/s0277-9536(00)00005-8
42. Dwicaksono A, Fox AM. Does decentralization improve health system performance and outcomes in low-and middle-income countries? A systematic review of evidence from quantitative studies. *Milbank Q*. 2018;96(2):323-368. https://doi.org/10.1111/1468-0009.12327
43. Muñoz DC, Amador PM, Llamas LM, Hernandez DM, Sancho JMS. Decentralization of health systems in low- and middle-income countries: a systematic review. *Int J Publ Health*. 2017;62(2):219-229. https://doi.org/10.1007/s00038-016-0872-2
44. Rifkin SB. Examining the links between community participation and health outcomes: a review of the literature. *Health Pol Plann*. 2014;29(Suppl l_2):ii98-ii106. https://doi.org/10.1093/heapol/czu076
45. Eisenhardt KM. Building theories from case study research. *Acad Manag Rev*. 1989;14(4):532-550. https://doi.org/10.5465/amr.1989.4308385
46. Yin RK. Case Study Methods; 2012.
47. Baccouche N. Decentralization in Tunisia: challenges and prospects. *Federalism–a success story*. 2016:1.
48. Gable GG. Integrating case study and survey research methods: an example in information systems. *Eur J Inf Syst*. 1994;3(2):112-126. https://doi.org/10.1057/ejis.1994.12
49. Belhedi A. Disparités régionales en Tunisie. Défis et enjeux. In: *Communication à l'Académie des Sciences, des Lettres and des Arts*. BeitAl-Hikma; 2017:7.
50. Saleh SS, Alameddine MS, Natafgi NM, et al. The path towards universal health coverage in the Arab uprising countries Tunisia, Egypt, Libya, and Yemen. *Lancet*. 2014;383(9914):368-381. https://doi.org/10.1016/s0140-6736(13)62339-9
51. Salman L. What we talk about when we talk about decentralization? Insights from post-revolution Tunisia. *L'Année Du Maghreb*. 2017(16):91-108. https://doi.org/10.4000/anneemaghreb.2975
52. Yousfi H. Reshaping state/local communities' relations in Tunisia: the socio-cultural and institutional challenges of the decentralization project. *Eur Manag J*. 2019;37(5):625-636. https://doi.org/10.1016/j.emj.2019.05.002
53. Tunisia WHO. *Health System Profile*. Regional Office for the eastern Mediterranee; 2018.
54. Mokdada M, Brayek A, Abidi Gam W, Ben Hamed MA. Santé Tunisie en chiffres 2017. République Tunisienne, Ministére de la Santé, Direction des Etudes Et Planification, S/Direction des Statistique; 2019.
55. Institut National de Statestiques INS. Census of the Tunisian Population-2014; 2015. Accessed at 12 April 2021. http://www.ins.tn/en/results
56. Neri S. *The Italian National Health Service after the Economic Crisis: From Decentralization to Differentiated Federalism*. e-cadernos; 2019. *CES* 31.
57. Pedersen KM, Christiansen T, Bech M. The Danish health care system: evolution-not revolution-in a decentralized system. *Health Econ*. 2005;14(S1):S41-S57. https://doi.org/10.1002/hec.1028
58. Peckham S, Exworthy M, Powell M, Greener I. Decentralizing health services in the UK: a new conceptual framework. *Publ Adm*. 2008;86(2):559-580. https://doi.org/10.1111/j.1467-9299.2007.00709.x
59. Omar MA. Strengthening district health management in low-middle income countries: reflections and way forward. *Jurnal Administrasi Kesehatan Indonesia*. 2020;8(2):123-140. https://doi.org/10.20473/jaki.v8i2.2020.123-140
60. Fgaier M. The reform of the health care system in Tunisia. *Int J Perception in Pub Health*. 2018;2(3):1-3. https://doi.org/10.29251/ijpph.201871

AUTHOR BIOGRAPHIES

Martina Giusti is Research fellow and Phd student in Biomedical Sciences at the University of Florence. Member of the joint laboratory 'Knowledge Development Healthcare System' between the Department of Experimental and Clinic Medicine of the University of Florence and the Global Health Centre of the University Children hospital Meyer in Florence.

Alberto Romolini is Vice-Dean of the Faculty of Economics at the Università Telematica Internazionale Uninettuno in Rome. In the same institution he is Associate Professor in Business Administration. His research interests are in the area of public management, financial accounting, CSR, sustainability reporting and tourism management.

Niccolò Persiani is Full professor of business economics into the School of Medicine at the University of Florence. His main areas of interested are accountability and control in healthcare sector, the development of the technical, rehabilitative, and preventive health professional in the research sector and the international health cooperation in the Mediterranean area.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Giusti M, Romolini A, Persiani N. The inequalities reduction through healthcare decentralisation in low-middle income countries: the case of Tunisia. *Int J Health Plann Mgmt*. 2023;38(4):936-950. https://doi.org/10.1002/hpm.3632