



8

Health Services Packages in the Islamic Republic of Iran: The Need for Comprehensive and Effective Institutionalization

Reza Majdzadeh, Haniye Sadat Sajadi, Hamidreza Safikhani, Alireza Olyaeemanesh, and Mohsen Aarabi

ABSTRACT

The Islamic Republic of Iran has expanded its primary health care network, yielding notable enhancements in health indicators. The core health services portfolio now encompasses primary health care, diagnostic and specialty treatment services, and inpatient care. Challenges posed by economic sanctions and the COVID-19 pandemic have imposed strains on the country's health care system. In response, the Islamic Republic of Iran has undertaken revisions to its service package, aiming for enhanced efficiency and equity and substantial investments in augmenting its human resources capacity. Nevertheless, despite recent efforts to systematically embed service package prioritization within the health system, achieving sustainability remains a challenge. To establish a lasting institutional foundation for its service packages, the Islamic Republic of Iran must continue dismantling institutional obstacles and creating robust stakeholder engagement platforms. However, the success of those initiatives will require ongoing work and time to see whether they yield the desired outcomes. Such measures will facilitate the prioritization of services, fostering improved efficiency within the health system.

INTRODUCTION

The Islamic Republic of Iran has a per capita gross national income of 13,338 international dollars (2020) at purchasing power parity (Hamadeh, Van Rompaey, and Metreau 2021). It has been under sanctions since 1979, and the United Nations has imposed sanctions since 2011 over nuclear development activities. Economic sanctions were lifted in 2015 through the Joint Comprehensive Plan of Action; however, economic sanctions were reimposed in 2018 with severe restrictions (Danaei, Harirchi, et al. 2019; Sajadi, Gloyd, and Majdzadeh 2021).

The country has implemented remarkable initiatives to strengthen the health system and provide accessible health care to all citizens (Doshmangir et al. 2019; Sajadi, Ehsani-Chimeh, and Majdzadeh 2019). Those outstanding initiatives began in the early 1980s with the expansion of the primary health care (PHC) network. For example, life expectancy before the Islamic Revolution in 1976 was 55.7 years and reached 78.7 years in the 2019 census. Changes in life expectancy in the country primarily reflect the reduction in child mortality, a reduction that has accelerated with the development of PHC throughout the country and the rural development after the revolution (Danaei, Farzadfar, et al. 2019). Table 8.1 provides selected health system indicators related to package definition and revision.

Table 8.1 Selected Health System Indicators, Islamic Republic of Iran

Indicator	Estimate	Year
UHC service coverage index	77/100	2019
Incidence of catastrophic expenditure (>25%) (NIHR 2023)	1.04	2022
Total health expenditure from gross domestic product (%) (WHO 2020a)	8.7	2018
Domestic general government health expenditure as a percentage of general government expenditure	21.4	2019
Out-of-pocket expenditure as a percentage of current health expenditure (WHO 2020a)	41.2	2018
Percentage of primary health care expenditure from domestic general government health expenditure (WHO 2020a)	30.0	2018
Medical doctors per 10,000 population	15.8	2018
Nursing and midwifery personnel per 10,000 population	20.8	2018

Sources: As shown in table; data with no reference come from World Health Organization, Global Health Observatory, <https://www.who.int/data/gho> (accessed March 7, 2023).

Note: UHC = universal health coverage.

The COVID-19 pandemic affected the Islamic Republic of Iran more than other countries in the Eastern Mediterranean Region (Takian, Raoofi, and Kazempour-Ardebili 2020). According to official statistics, more than 137,000 people in the country had died from COVID-19 as of March 1, 2022.¹ The pandemic has also had an extensive economic impact: government revenue from April to December 2020 was only 55 percent of the approved budget for the fiscal year, whereas health and social assistance costs increased to 28 percent because of

the pandemic (World Bank 2022). Consequently, the combination of economic sanctions and the social and economic consequences of COVID-19 have deepened financial constraints on the country's health system. During these many years, cumulative financial constraints have eroded the health infrastructure (equipment and buildings) and limited the provision of health resources (Sajadi and Majdzadeh 2019).

The Universal Insurance Law 1994 sought to cover nearly 60 percent of uninsured Iranians, leading to the creation in October 1994 of the Medical Services Insurance Organization, later renamed the Iran Health Insurance Organization. The organization was established to cover all people within five years, including government employees and community individuals of various socioeconomic levels who were not eligible for coverage by other health insurance organizations.

Most health insurance schemes have faced numerous challenges during the last two decades. For example, they failed to meet the Universal Insurance Law's target of covering all Iranians by 1999. They underperformed in their primary functions, such as strategic purchasing and cost containment, which led to a considerable increase in out-of-pocket (OOP) health expenditures. A new Ministry of Welfare and Social Security was established to overcome the challenges, with mandates including the integration of all basic health insurance organizations under one structure. Because the merger of insurance funds did not materialize, however, the pooling function is still fragmented (Doshmangir et al. 2021; Mohammadi et al. 2014).

Since 2014, the General Health Policies (GHPs) have defined a road map for the future direction of the Islamic Republic of Iran's health system. The content analysis of the GHPs shows two fundamental goals of the system: equity in access to services and financial protection against health expenditures (Sajadi, Gholamreza Kashi, and Majdzadeh 2020). Clause 9 of the GHPs aims for a quantitative and qualitative development of health insurance and states:

Determining the package of comprehensive health services at the level of basic and supplementary insurance by the Ministry of Health and Medical Education (MoHME), purchasing by the insurance system, and adequate supervision over the accurate implementation of packages by eliminating unnecessary measures and unnecessary costs.

In the same year, health sector reform in the country began under the Health Transformation Plan (HTP). The estimated incidence of catastrophic health expenditures (that is, OOP payments for health that represent more than 10 percent of household income) increased from 11.3 percent in 2005 to 16.0 percent until the HTP in 2014 (Hsu et al. 2021). Evidence shows that OOP spending had no stability or decrease before that. Through HTP, a basic insurance scheme covered 9 million people to complete population coverage in the country. The share of people's direct payment for health services in the public sector decreased significantly, and many public hospitals and primary health care centers were renovated. The HTP increased MoHME's budget by over one-third and health insurance organizations

by two-thirds to finance the plan. In addition, it allocated 1 percent of value added tax to the health system (Harirchi et al. 2020). Although initiated as a comprehensive health system reform, the HTP faced instability of resources because of the economic constraints of sanctions and the COVID-19 pandemic. Consequently, financial resources after HTP were not sustainable, and government spending on health at a constant price shows a decline from 2016 (Aminlou 2022).

The Islamic Republic of Iran's service package is provided through three service platform levels. The first level of the public sector includes mostly promotive and PHC services provided at no charge to individuals. Private offices are the main provider of first-level care, however, particularly in urban areas and populated cities where basic insurance schemes cover their services and because of the lack of a Family Physician Program (FPP) in urban areas with populations greater than 20,000. In those private offices, insurance covers 70 percent of the public or government doctor's tariff and patients must pay the difference. Community health workers in comprehensive public health centers in cities with a population of more than 20,000 actively provide health service packages to almost the entire population, with one community health worker for every 3,000 people. They receive funding from the public sector through MoHME.

The second level consists of specialists and subspecialists services in outpatient offices and district hospitals, and the third level of care is provincial hospital services. Basic health insurance organizations purchase the second and third levels of care by paying 90 percent of public/government tariffs. Because the private sector is a significant secondary and tertiary care provider, basic health insurance organizations cover only 70 percent and 90 percent of public tariffs for outpatient and inpatient services, respectively. Complementary, noncompulsory, or commercial insurances cover co-payment of those services based on the private tariffs, partially paid by the basic insurance and additional health care services. Additional support comes from the public fund that directly subsidizes most of the costly services.

Because basic health insurance does not provide adequate coverage for outpatient services, especially para-clinic services in the private sector, complementary health insurance has been expanded in recent years. Complementary health insurance covers not only those services not covered by the basic service package (such as advanced dental services and some medications) but also partial costs of diagnosis and treatment services partly covered by basic insurance. Despite the legal framework, basic health insurance obligations have not been clearly defined, so a few differences exist between basic and complementary health insurance services.

The decision to divide services between basic and complementary insurance is not systematic and is based on criteria such as willingness to pay, public health importance, and financial protection. Consequently, some essential services may be left out of public insurance schemes (Akbari et al. 2022; Keshavarzian and Mofidian 2015). In addition, because of the lack of strategic purchasing, insurance funds operate passively, with the service provider determining what services should

be purchased. Currently, the difference between the price of services in the public and private sectors is due to the difference in the technical component of the tariff, which includes depreciation rates and capital gains. As noted earlier, basic insurance pays 70 percent of the government tariff for outpatient services and 90 percent of the inpatient tariff for the second and third levels of basic services. The existence of tariffs higher than the approved ones has led to widespread informal payments (Doshmangir et al. 2020; Sajadi et al. 2022).

Of the more than 1,054 hospitals providing inpatient services, almost 80 percent are public (NIHR 2023). Private hospitals have a dramatically higher tariff than public hospitals, although both private and public tariffs are approved by the Supreme Council of Health Insurance (SCHI). Individuals insured by complementary insurance benefits pay 10 percent to 20 percent of inpatient service expenses in private hospitals (Keshavarzian and Mofidian 2015).

A significant amount of induced demand exists, as evidenced by the nonadherence of clinical practice with service standards (Akbari et al. 2022). Induced demand has not been comprehensively investigated in the country; however, the results of existing studies indicate that the payment mechanism is based on the fee-for-service method, many physicians are shareholders of hospitals and medical laboratories, and there is poor adherence to clinical practice guidelines (Mounesan et al. 2013). The development of those guidelines in the Islamic Republic of Iran dates back more than two decades. A department in the MoHME supports various research centers in developing the clinical practice guidelines, but no drastic measure has been adopted for encouraging or supervising their application (Baradaran-Seyed and Majdzadeh 2012) and adherence is not enforced.

APPROACH

This chapter does not follow the conventional methodology of detailing the various stages of designing a service package, such as assessing the cost-effectiveness of interventions or the budget impact. Instead, this chapter partly represents the outcome of a study whose detailed methodology and results were previously published elsewhere (Sajadi et al. 2024). It adopts the framework presented in the World Health Organization's *Institutionalizing Health Technology Assessment Mechanisms: A How To Guide* (Bertram, Dhaene, and Tan-Torres Edejer 2021). That guidance introduces a conceptual framework encompassing the establishment of a mandate, a legal framework, institutional arrangements, and procedural aspects required for initiating an evidence-informed decision-making system. However, the process requires inputs further augmented by human and financial resources (Bertram, Dhaene, and Tan-Torres Edejer 2021).

Following that framework, the significance of institutionalization for formulating a service package is proposed as a vital element of fair decision-making in the priority-setting process (Sajadi, Jama, and Majdzadeh 2023). Having already described the context of the Islamic Republic of Iran's health system, the chapter

will provide an overview of the evolution of priority setting for health service packages in the country and the current challenges. It will subsequently employ this framework to provide recommendations for institutionalizing the priority-setting decision-making process for the service package.

EVOLUTION OF PRIORITY SETTING FOR HEALTH SERVICES PACKAGES

The Islamic Republic of Iran's basic health services package consists of two main categories: essential PHC services ("A" in the descriptions provided in the following paragraphs) and more advanced diagnostic and treatment services ("B"), provided in both the secondary and tertiary levels of care. Figure 8.1 shows the actions the country has taken to define or revise each of the two categories.

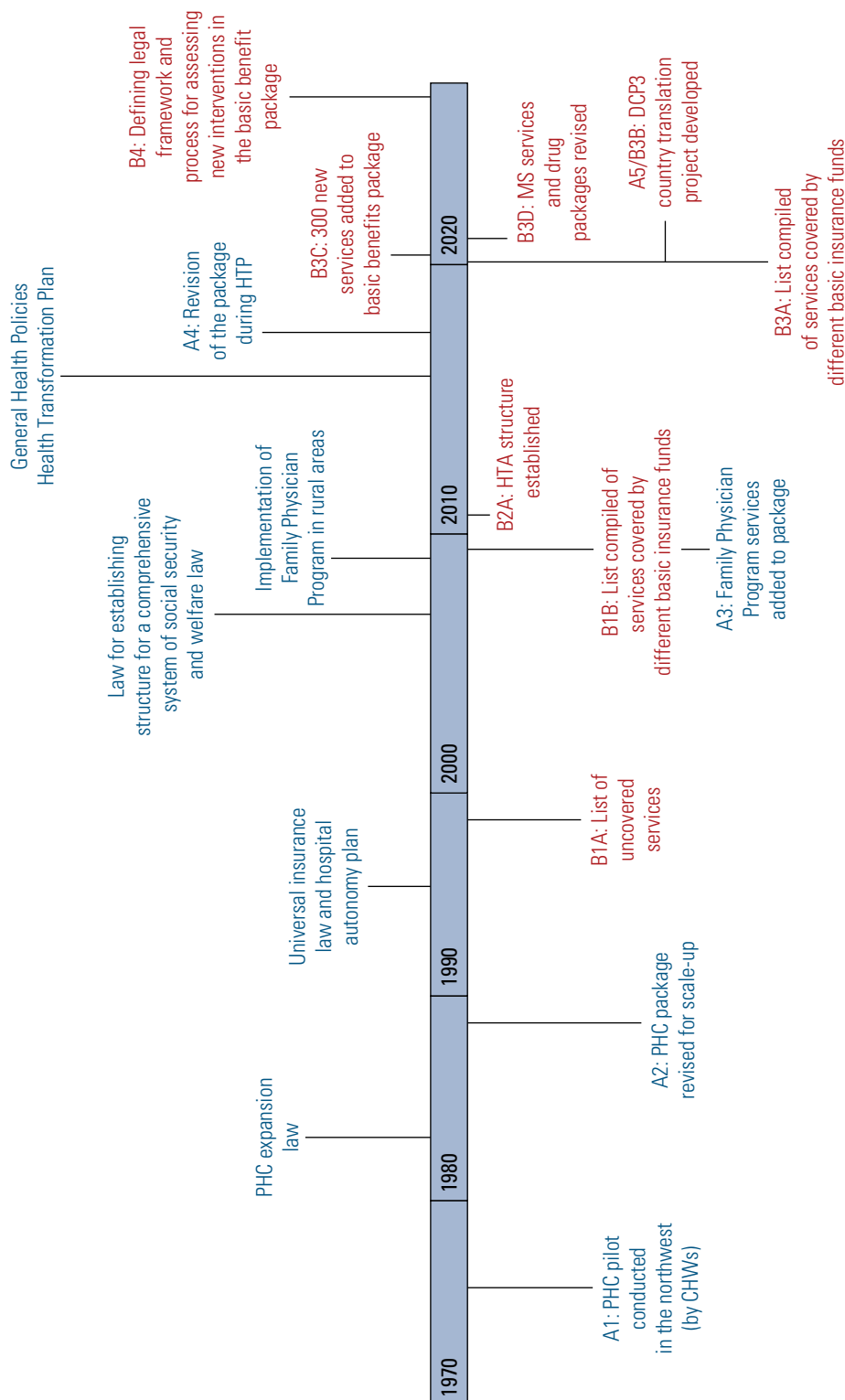
A: Preventive and PHC services. The first level of care provides the services. The package includes mostly promotive and preventive services, with a small number of surgical, pharmaceutical, and diagnostic services. The government funds this package of services, and the country's entire population has access to the services for free.

A1: Pilot of PHC package. The design and use of PHC service packages in the country date back to the 1970s and the Urmia project carried out by the Institute of Public Health Research at Tehran University in West Azerbaijan. Thirty health houses in rural areas were set up as an intervention compared with a similar area without health houses. In that initial design, the package included services needed by mothers and children. It then defined environmental health and infectious diseases services to be delivered by community health workers (Pileroudi, Shadpour, and Vakil 1981). The target diseases were identified by studying reasons for admission to service delivery points and causes of mortality. The content was defined according to World Health Organization and United Nations Children's Fund recommendations.

A2: Revision and scale-up of PHC package. Since the early 1980s, PHC has been deployed across the country. This round involved completing the package and reviewing the technical details of the planned package for nationwide implementation, and defining services related to family and school health, infectious diseases, noncommunicable diseases (NCDs), oral health, environmental health, and health education. The critical point in this round was considering the human resources needed and defining the link between different health system levels for continuity of care (referral system).

A3: Addition of the FPP. In 2005, the package implemented the FPP, established a referral system, and established the rural health insurance system. The family physician or health team package provides PHC services in rural, nomadic areas and in cities with less than 20,000 people. Since 2012, the FPP has expanded to cities with higher populations and has been fully implemented as a pilot program in two provinces of Fars and Mazandaran.

Figure 8.1 Timeline of Significant Events Related to Determining Health Interventions, Islamic Republic of Iran



Source: Original figure developed for this publication.

Note: Blue = the preventive and PHC services package; red = the diagnostic and therapeutic services package. A = PHC services; B = diagnostic and therapeutic services; CHW = community health worker; DCP3 = *Disease Control Priorities*, third edition; HTA = Health Technology Assessment; HTP = Health Transformation Plan; MS = multiple sclerosis; NCD = noncommunicable disease; PHC = primary health care.

A4: Revision of the package during the HTP. In 2015, during the HTP, the preventive and PHC services packages were reviewed. The approach to package definition changed to the care of population groups (children, adolescents and young people, the middle-aged and elderly, and pregnant mothers). The review included NCDs; nutrition; and mental, infectious, environmental, and occupational health service packages at the primary level. The revised services were implemented, and funds for these services came from the government without any payment from people at the first level of services.

B: Diagnostic and therapeutic services. This category comprises diagnostic and paraclinical services, clinical interventions, medicines, medical equipment and supplies, and specialized medical care, delivered mainly through general and specialized hospitals and ambulatory care centers. The actions taken fall into three categories: passive purchasing (B1), Health Technology Assessment, or HTA (B2), and moving toward strategic purchasing of the service package (B3).

B1: List of uncovered services. The need for defining a package arose in 1995 after the approval and implementation of the country's Universal Insurance Law and hospital self-governance policy. With its formation, the SCHI took on the responsibilities of policy making, planning, coordination, and supervision of insurance organizations. Previously, each insurance organization prepared and implemented its package according to the population covered and the available resources. One of the SCHI's first decisions was to publish a negative list of noncovered services. Examples of noncovered services included cosmetic procedures, organ transplantation, and infertility services (B1A). After approval in 2004 of the comprehensive welfare and social security system law, some services (for example, rehabilitation devices and oral health) were removed from the package to reduce the financial burden on insurance funds. In 2007, a comprehensive list of all services covered by different insurance funds was compiled (B1B).

B2: Establishment of HTA structure. Strategic purchase through HTA began in 2007 as a national program. Since 2010, an office in MoHME has been assigned to HTA. The first cohort of students has been admitted to the HTA master's program. So far, more than 150 HTA projects in medicine, medical equipment, and treatment procedures have been conducted, making the Islamic Republic of Iran one of the leading countries in the Eastern Mediterranean Region in HTA (B2A). However, a study of 23 completed HTA projects finds that HTA evidence is unsatisfactory and that the lack of institutionalization prevents HTA from providing evidence for decision-making (Mohtasham et al. 2016).

B3: Strategic purchasing. The implementation of the HTP made evident that inefficiency is one of the main problems of the country's health system. Encompassing challenges include constrained allocation to PHC, fragmentation among insurance funds, weak strategic purchasing, catastrophic costs, and inadequate financial protection (Danaei, Farzadfar, et al. 2019). Attempts to address those challenges included a workshop on strategic purchasing (B3A) and review

of the package using the reference list from the third edition of *Disease Control Priorities* (DCP3). This initiative started with maternal care, HIV/AIDS, and NCDs services, but did not continue (A5/B3B). With the mobilization of resources through HTP, basic insurance covered 300 new services (B3C). Finally, in 2018, the service package review began with the evidence-informed deliberative process approach. The SCHI reviewed the service package and medicines related to multiple sclerosis (MS) and diabetes (Mataria et al. 2023) and endorsed the package in 2021 for implementation (B3D).

With the shift in disease burden, the initial package containing services such as those related to communicable diseases and maternal and child health has changed to include NCDs, their risk factors, and mental health. A study on the NCD interventions to determine how the Iranian intervention package complies with World Health Organization recommendations identifies five criteria for prioritization: number of people affected by the intervention, cost-effectiveness, attributable burden, hospitalization, and variations among income levels (Bakhtiari et al. 2020). According to multiple-criteria decision analysis used for prioritization, the only best buy for NCDs is the papillomavirus vaccination, which is not available in the country. Another study demonstrates that evidence-informed decision-making in the Islamic Republic of Iran remains a challenge when defining health programs within the PHC context of public facilities (Majdzadeh et al. 2022). Fundamentally, because the services at this level encompass essential health care provisions (such as maternal and neonatal health), they attract the attention of United Nations agencies. Also, the MoHME maintains robust connections with those agencies.

To assess the eligibility of benefits, the SCHI Secretariat has used specific criteria, including effectiveness, safety, and financial burden. Disease burden was included after the first study in the country in 1999. Later, the financial burden on vulnerable groups was added as a criterion. Decisions were made by consensus or voting, and criteria were not scored. Until 2001, the purchase of services was passive, with services reviewed at the request of service providers, scientific groups, or companies. The development of managed care began at that time. In 2004, 42 managed care guidelines were published in the country outlining activities to address specific health issues, such as monitoring children's health or pain control in cancer patients. This initiative can be considered a move toward strategic purchasing.

In 2008, MoHME endorsed a procedural guide for HTA. At that time, HTA was applied to capital equipment entering the country for the first time. A domestic HTA model has existed in the country since 2011 (Arab-Zozani et al. 2020) with a decision support system that specifies what to do for each outcome (Yazdani and Jadidfard 2017). Research projects have studied fundamental methodological aspects of package development, determining, for example, the willingness to pay for each quality-adjusted life year (Moradi et al. 2019) and for social health insurance (Nosratnejad et al. 2014). A study on public opinion regarding private and social time preference for health outcomes finds that the discounting rate

for distant health outcomes should include lower values than global standards (Mahboub-Ahari et al. 2019). In prioritization methodologies, the Technique for Order of Preference by Similarity to Ideal Solution approach was applied to three technologies: adenosine, tissue plasminogen activator, and mechanical thrombectomy (Mobinizadeh et al. 2021). Another study used expert opinion to identify nine criteria: efficiency/effectiveness, safety, population size, vulnerable population size, availability of alternative technologies, cost-effectiveness in other countries, budget impact, financial protection, and quality of evidence (Mobinizadeh et al. 2016). A study assessing the public perspective regarding prioritization criteria recognizes disease severity, age, daily care needs, number of alternative interventions, individuals' economic status, and diseases with absence from work (Darvishi et al. 2022).

Despite the methodological advancements pursued in the Islamic Republic of Iran over the years, most approaches remained exemplar-based at the level of individual research projects, and an evidence-informed decision-making system for prioritization was not fully institutionalized. The primary evidence stems from a qualitative study on the basic insurance package between 2014 and 2016. That study reveals that political and financial factors heavily influenced package design, with limited incorporation of evidence-informed methodology. Additionally, conflicts of interest played a role, necessitating proactive measures to mitigate potential negative consequences (Mohamadi, Takian, et al. 2020).

In 2018, a comprehensive study was conducted on the country translation of DCP3. Its initial assessment indicates that DCP3 has limited added value in the Islamic Republic of Iran as a lower-middle-income country (at the time of the study). DCP3's list of services is suitable for countries with constrained resources and few services in the package but needs more information for countries with more financial resources or extended service packages. For example, a review of maternal health services in the Islamic Republic of Iran shows that all DCP3 services already exist in the country, highlighting the need for more information about benefits (such as surgeries) at the second and third levels of service delivery. Nevertheless, DCP3's approach can play a crucial role as a model package capable of establishing a unified approach to prioritization, steering the national health system toward a prioritization system, and shaping the necessary governance in the country (Alwan et al. 2023). For example, countries' experiences demonstrate how having a model package has significantly contributed to multiple funding agencies' convergence of pooling functions (Soucat, Tandon, and Gonzales Pier 2023).

After May 2019, another effort to implement the evidence-informed deliberative process involved reviewing previous studies that address the criteria for prioritizing the basic services package. It identified and used three pillars: quality of care (effectiveness and safety), necessity (OOP and alternative availability), and sustainability (budget impact) (Nouhi et al. 2022). The project fostered deliberation among technical experts, medical professionals, patients, scientists, and insurance company representatives to select services. World Bank (2023) cites it as an example

illustrating how well a fair and democratic process can work. This initiative demonstrated two additional advantages. First, stricter coverage conditions at lower prices were implemented for specific interventions, which could be considered a type of disinvestment (Gheorghe and Baker 2024). Second, a model for monitoring and evaluating the decision-making process for the package's priority-setting process was developed, which requires an assessment to validate its performance. In addition to the pilot on MS, the methodology developed in this work has been applied to cases of diabetes, breast and colorectal cancers, schizophrenia, hypertension, and dementia. The resulting structure and process have provided input for the resolution of the SCHI, which is introduced subsequently.

The review of important events in service prioritization shows that the Islamic Republic of Iran has been developing and implementing service packages for decades. In all those years, expert opinion highly influenced the process, first implicitly and then explicitly from 15 years ago, before the evolution of the priority-setting process and the adoption of criteria used in other countries (Baltussen et al. 2023). The country has also engaged in adequate capacity building of skilled human resources. However, the need to revise many more services, which has yet to be addressed, has caused the country's health system to suffer from inefficiency (Mohamadi, Manesh, et al. 2020; Sajadi et al. 2020). Therefore, the financial protection provided to the people against health expenditure is less than the capacity of the country's health system (Abdi et al. 2020; Hsu et al. 2021).

B4: Establishing a legal framework and process for assessing new interventions in the basic benefits package. Fundamental steps have been taken to use evidence in the health service package. Notably, insurance funds are mandated to conduct HTA for new interventions in the five-year plan scheduled for implementation starting in 2024. Should the HTA be realized, a legal framework for this level of services will be established (Iran's Islamic Consultative Assembly 2024).

Since early 2020, the SCHI has approved the structure and decision-making process for prioritizing services that define the obligations of basic insurance funds concerning specialized health services. The process involves technical groups, patient advocacy, ethical development, and benefit management, all of which are expected to assess interventions on the basis of predefined criteria (as outlined in the pilot program detailed in section B3D). The criteria for determining voting rights, ensuring confidentiality during reviews, and avoiding conflicts of interest among these individuals have been defined. Additionally, the decision-making method, the weight assigned to each criterion, and the appeal process have been anticipated (MoHME 2020). In terms of resource allocation, the SCHI has approved the allocation of up to 1 percent of the growth in revenue from service tariffs to cover new services; additionally, 0.01 percent of the resources from the major basic insurance funds is to be dedicated to conducting cost-effectiveness and budget impact studies. Time is needed to observe how well this process and structure are implemented and to evaluate their impact on the health service package.

CURRENT CHALLENGES

Applying the framework introduced earlier in the chapter, figure 8.2 summarizes current challenges and the way forward for the Islamic Republic of Iran's health system in terms of service package development. The lack of institutionalization of evidence use to prioritize health interventions is the fundamental challenge of service package development in the country.

Institutionalization refers to how a collection of actions becomes a sustainable part of a system (Sajadi, Jama, and Majdzadeh 2023). Health care organizations' complex individualized, organizational, and system relations and contextual factors make it difficult to institutionalize the use of evidence to set priorities (Bertram, Dhaene, and Tan-Torres Edejer 2021; Kuchenmüller et al. 2022). Removing barriers and moving toward evidence-informed priority setting will require identifying requisites and health system readiness (Alwan et al. 2023). The following paragraphs explain the most critical challenges of institutionalization according to the Islamic Republic of Iran's experience in developing and revising its service package.

Figure 8.2 Challenges and Way Forward for the Islamic Republic of Iran's Health System

Challenges	The Way Forward
Lack of institutionalization of evidence use to prioritize health interventions	Remove barriers related to institutional factors and conflict of interest management
The necessity of revising the health package as a mandate to achieve UHC, particularly at the second and third level of care	Remove barriers related to institutional factors and conflict of interest management
Need for a legal framework to support evidence in prioritizing services	Strengthen transparency and accountability
Lack of a structure and processes for deliberative evidence-informed prioritization	Consolidate the process to clearly define the participation of stakeholders and the public
Challenges in stakeholder engagement and conflict of interest management	Implement the structure and processes for evidence-informed prioritization

Source: Original figure developed for this publication.

Note: UHC = universal health coverage.

First, the need to revise the health package, particularly at the second and third levels of care, is not considered part of the health system's mandate to achieve UHC. Upstream laws and policies include revision of the health package through an evidence-informed approach (Sajadi, Gholamreza Kashi, and Majdzadeh 2020); however, that change in approach has not led to sustainable practice in the health

system because it is considered a separate initiative, not part of achieving UHC. Consequently, packages of different levels of care (intersectoral interventions, PHC, and secondary and tertiary care) are considered separately rather than as part of a comprehensive package for achieving health and equity for the whole society. The service packages are not designed to implement the GHPs (in line with UHC) and are not developed or revised in a systematic and integrated way. Some services overlap with others, and their structure is unclear. Without an integrated scientific system to prioritize health interventions, vulnerable groups' access to essential, cost-effective services is threatened. That situation, along with high OOP payments, jeopardizes their financial protection.

Second, the country needs more than its current legal framework to support evidence in prioritizing services. Revising the health package—as endorsed in the country's development plans and GHPs—will require adequate enforcement and regulatory support as well as a more robust accountability mechanism (Doshmangir, Moshiri, and Farzadfar 2020; Sajadi, Gholamreza Kashi, and Majdzadeh 2020).

Third, the country must expand a structure and processes for deliberative, evidence-informed prioritization and ensure robust implementation of it for a basic benefits package. The institutional arrangement has some weaknesses despite the formation and operation of the Secretariat of the SCHI (to decide on basic insurance packages and government support), the PHC Network Development Center (for the first level of public services), and the HTA office (for data work). For example, the organizational position of the SCHI in playing its stewardship role has been established and needs to be implemented.

Although the 2010 formation of the HTA office in the MoHME marked a significant turning point, separate offices for HTA have recently been set up in different departments of the MoHME and insurance organizations. As those different offices have undertaken evaluation work, it has created a dispersion in the production and implementation of HTA. The lack of harmonization in the prioritization process has resulted in the use of various technical methods by the diverse centers.

Part of this challenge involves lack of stakeholder participation and conflicts of interest. The outcome of the service package definition and revision process affects the interests of various groups, and a significant challenge persists in ensuring that the process is evidence-informed and that it properly manages the participation and interests of all stakeholders, including patients. This issue has been anticipated in the new process for the insurance funds and must be implemented.

HTA offices' outsourcing of evidence production to the private sector (suppliers or importers of drugs) increases the likelihood of conflicts of interest. Given the private sector's role in the provision of health services, the interplay between the private and public sectors for dual-practice professionals can exacerbate conflicts of interest and substitute the use of power for evidence in the prioritization process.

Another challenge in managing interests is people's preferences. Over the years, specialization has dramatically dominated the service-seeking culture. People have an extreme desire to go directly to specialist and subspecialist physicians and to have unconditional access to expensive diagnostic and treatment services.

The diversity and inconsistency between licensing bodies for health technologies is another concern, making it difficult to apply the results of studies (Yazdizadeh et al. 2016). A study examining the feasibility of setting up a hospital HTA in the country finds limited use of evidence for prioritization not only at the macro level but also at the hospital level (Mohtasham, Majdzadeh, and Jamshidi 2017).

THE WAY FORWARD

As shown in figure 8.2, the Islamic Republic of Iran needs to remove barriers related to institutional factors and conflict of interest management. It needs to redefine the structure and processes associated with the evidence-informed approach to prioritization and develop the necessary platforms for stakeholder participation. Institutionalizing the use of evidence in prioritization will require changing the attitude of policy makers to recognize the need for a scientific approach to reviewing the service package. Otherwise, the country cannot solve the health system's current problems, especially those related to financing and service delivery, and they will become more acute over time. Revising the health package should include a comprehensive definition of UHC of services from promotional to palliative. Given the vital role of social factors affecting health, establishing a relationship between the health system and the social services system can accelerate the promotion of people's physical, mental, and social health. Doing so will require strengthening the intersectoral sections of the service package.

Regardless of the need to align package definition and revision with a comprehensive approach to health and UHC, the country needs to implement three primary strategies: (1) enforce the legal framework of prioritization, (2) strengthen transparency and accountability, and (3) consolidate the process to clearly define stakeholder and public participation (Sajadi, Jama, and Majdzadeh 2023).

The experience of the Universal Insurance Law 1994 shows the possibility of full enforcement with the support of the legal framework. That framework should consider revising the package as part of achieving UHC. It should create commitment and motivation of policy makers and ministries and convince them that using evidence to define health interventions for public funding is part of ensuring health for all. To institutionalize the process, decisions to add or remove services from the health package at all levels of service delivery (from promotional to palliative care) must meet specific requirements.

Recent pilots conducted for MS and other diseases show the possibility of optimizing resources allocated for each disease. Although the changes did not achieve the advantage of increasing the health system's efficiency because of their

lack of generalization, it is promising that the SCHI has approved the pilots' recommendations. As a strategy for progressing the work, focusing independently on each disease and program removes initial sensitivities and allows for optimization between the diseases and the programs. For example, when services are optimized in the MS package, MS's public resources no longer move to other programs, and entitlements of MS patients or related service providers do not change to create challenges. However, until the health package is comprehensively revised to achieve UHC, it cannot lead to positive changes in increasing health system efficiency.

Transparency and accountability processes also need to be established or strengthened. A salient feature of the recent SCHI resolution is transparency, which is essential for service package review work and has been a challenge in recent HTA in the country. A recent comprehensive study in the Islamic Republic of Iran clearly shows the need to establish accountability mechanisms to persuade policy makers to make informed decisions (Majdzadeh et al. 2022). Without establishing mechanisms to monitor what individuals do in response to decisions and, consequently, what rewards or penalties to impose on them, one cannot expect the results of using evidence for prioritization. Other measures to increase transparency and accountability include establishing policies and decisions related to the basic health insurance package based on studies and expert opinions, and reducing political decisions, especially for expensive technologies and medicines.

One of the critical elements for fairness in the decision-making process for priority setting—and a principle for preparing health care services packages—is the participation of the public, including vulnerable groups (Kapilashrami, Razavi, and Majdzadeh 2023; WHO 2020b). Despite the legal capacities for public participation in Iranian policy making, which could be employed in priority setting, those capacities have not been effectively used yet (Rahbari Bonab, Majdzadeh, and Rajabi 2023). Iranian public participation structures take two forms—the health participation house (for brokering between people and managers) and the health assembly (public participation in policy making)—which can be used to institutionalize their capacity or similar structures in the evidence-informed deliberative prioritization process of the service package.

ACKNOWLEDGMENTS

The authors are grateful for the significant contributions of Dr. Mohammad-Hassan Abolhassani and Dr. Effat Mohammadi, whose insights into historical perspectives and recent advancements have significantly enriched this work.

NOTE

1. World Health Organization, Eastern Mediterranean Region, “COVID-19 Situation Reports,” <https://www.emro.who.int/health-topics/corona-virus/situation-reports.html> (accessed August 20, 2024).

REFERENCES

- Abdi, Zhaleh, Justine Hsu, Elham Ahmadnezhad, Reza Majdzadeh, and Iraj Harirchi. 2020. "An Analysis of Financial Protection Before and After the Iranian Health Transformation Plan." *Eastern Mediterranean Health Journal* 26 (9): 1025–33.
- Akbari, Mohammad, Abbas Assari Arani, Mohammad Esmaeil Akbari, Bahram Sahabi, Alireza Olyaeemanesh, and Sajad Noorian. 2022. "Unnecessary Ultrasonography as Supplier-Induced Demand in Diagnosis of Primary Breast Cancer in Iran: A Cross-Sectional Study." *International Journal of Health Planning and Management* 37 (2): 873–85.
- Alwan, Ala, Reza Majdzadeh, Gavin Yamey, Karl Blanchet, Alemayehu Hailu, Mohamed Jama, Kjell Arne Johansson, et al. 2023. "Country Readiness and Prerequisites for Successful Design and Transition to Implementation of Essential Packages of Health Services: Experience from Six Countries." *BMJ Global Health* 8 (Suppl 1): e010720.
- Aminlou, Hassan. 2022. *Health Expenditure in Iran (2016–2021)*. Tehran: Ministry of Health and Medical Education.
- Arab-Zozani, Morteza, Mobin Sokhanvar, Edris Kakemam, Tahereh Didehban, and Soheil Hassani-pour. 2020. "History of Health Technology Assessment in Iran." *International Journal of Technology Assessment in Health Care* 36 (1): 34–39.
- Bakhtiari, Ahad, Amirhossein Takian, Reza Majdzadeh, and Ali Akbar Haghdoust. 2020. "Assessment and Prioritization of the WHO 'Best Buys' and Other Recommended Interventions for the Prevention and Control of Non-communicable Diseases in Iran." *BMC Public Health* 20 (1): 1–16.
- Baltussen, Rob, Omar Mwalim, Karl Blanchet, Manuel Carballo, Getachew Teshome Eregata, Alemayehu Hailu, Maryam Huda, et al. 2023. "Decision-Making Processes for Essential Packages of Health Services: Experience from Six Countries." *BMJ Global Health* 8 (Suppl 1): e010704.
- Baradaran-Seyed, Z., and R. Majdzadeh. 2012. "Evidence-Based Health Care, Past Deeds at a Glance, Challenges and the Future Prospects in Iran." *Iranian Journal of Public Health* 41 (12): 1.
- Bertram, Melanie, Gwenaël Dhaene, and Tessa Tan-Torres Edejer. 2021. *Institutionalizing Health Technology Assessment Mechanisms: A How To Guide*. Geneva: World Health Organization. <https://iris.who.int/bitstream/handle/10665/340722/9789240020665-eng.pdf?sequence=1>.
- Danaei, Goodarz, Farshad Farzadfar, Roya Kelishadi, Arash Rashidian, Omid M. Rouhani, Shirin Ahmadian, Alireza Ahmadvand, et al. 2019. "Iran in Transition." *The Lancet* 393 (10184): 1984–2005.
- Danaei, Goodarz, Iraj Harirchi, Haniye Sadat Sajadi, Faeze Yahyaei, and Reza Majdzadeh. 2019. "The Harsh Effects of Sanctions on Iranian Health." *The Lancet* 394 (10197): 468–69.
- Darvishi, Ali, Rajabali Daroudi, Mehdi Yaseri, and Ali Akbari Sari. 2022. "Public Preferences Regarding the Priority Setting Criteria of Health Interventions for Budget Allocation: Results of a Survey of Iranian Adults." *BMC Public Health* 22 (1): 1–16.
- Doshmangir, Leila, Mohammad Bazyar, Reza Majdzadeh, and Amirhossein Takian. 2019. "So Near, So Far: Four Decades of Health Policy Reforms in Iran, Achievements and Challenges." *Archives of Iranian Medicine* 22 (10): 592.
- Doshmangir, Leila, Mohammad Bazyar, Arash Rashidian, and Vladimir Sergeevich Gordeev. 2021. "Iran Health Insurance System in Transition: Equity Concerns and Steps to Achieve Universal Health Coverage." *International Journal for Equity in Health* 20 (1): 1–14.
- Doshmangir, Leila, Esmaeil Moshiri, and Farshad Farzadfar. 2020. "Seven Decades of Primary Healthcare during Various Development Plans in Iran: A Historical Review." *Archives of Iranian Medicine (AIM)* 23 (5).
- Doshmangir, Leila, Haniye Sadat Sajadi, Maryam Ghiasipour, Ali Aboutorabi, and Vladimir Sergeevich Gordeev. 2020. "Informal Payments for Inpatient Health Care in Post-Health Transformation Plan Period: Evidence from Iran." *BMC Public Health* 20 (1): 1–14.

- Gheorghe, Adrian, and Peter Baker. 2024. "Disinvesting From Low-Value Health Technologies in Low- and Middle-Income Countries: Between a Solution to the Current Fiscal Crises and a Costly Mirage." CGD Policy Paper 327. Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/disinvesting-low-value-health-technologies-low-and-middle-income-countries-between>.
- Hamadeh, Nada, Catherine Van Rompaey, and Eric Metreau. 2021. "New World Bank Country Classifications by Income Level: 2021–2022." *World Bank Data Blog*, July 21, 2021. <https://blogs.worldbank.org/opendata/new-world-bank-country-classifications-income-level-2021-2022>.
- Harirchi, Iraj, Mohammad Hajiaghajani, Aliakbar Sayari, Rassoul Dinarvand, Haniye Sadat Sajadi, Mahdi Mahdavi, Elham Ahmadnezhad, et al. 2020. "How Health Transformation Plan Was Designed and Implemented in the Islamic Republic of Iran?" *International Journal of Preventive Medicine* 11: 121.
- Hsu, Justine, Reza Majdzadeh, Anne Mills, and Kara Hanson. 2021. "A Dominance Approach to Analyze the Incidence of Catastrophic Health Expenditures in Iran." *Social Science & Medicine* 285: 114022.
- Iran's Islamic Consultative Assembly. 2024. *Seventh Five-Year Cultural, Economic, and Social Development Plan of the Islamic Republic of Iran*, Article 70(c). <http://shenasname.ir>.
- Kapilashrami, Anuj, Donya Razavi, and Reza Majdzadeh. 2023. "Enhancing Priority-Setting Decision-Making Process Through Use of Intersectionality for Public Participation." *International Journal of Health Policy and Management* 12: 8095.
- Keshavarzian, Maryam, and Sharareh Mofidian. 2015. "An Overview on Iran Health Care Financing System: Challenges and Solutions." *Journal of Health Policy and Sustainable Health* 1 (4).
- Kuchenmüller, Tanja, Laura Boeira, Sandy Oliver, Kaelan Moat, Fadi El-Jardali, Jorge Barreto, and John Lavis. 2022. "Domains and Processes for Institutionalizing Evidence-Informed Health Policymaking: A Critical Interpretive Synthesis." *Health Research Policy and Systems* 20 (1): 1–18.
- Mahboub-Ahari, Alireza, Abolghasem Pourreza, Ali Akbari Sari, Trevor A. Sheldon, and Maryam Moeeni. 2019. "Private and Social Time Preference for Health Outcomes: A General Population Survey in Iran." *PloS One* 14 (2): e0211545.
- Majdzadeh, Reza, Haniye Sadat Sajadi, Bahareh Yazdizadeh, Leila Doshmangir, Elham Ehsani-Chimeh, Mahdi Mahdavi, Neda Mehrdad, et al. 2022. "Policy Options for Strengthening Evidence-Informed Health Policymaking in Iran: Overall SASHA Project Findings." *Health Research Policy and Systems* 20 (1): 1–13.
- Mataria, Awad, Reza Majdzadeh, Deena Al Asfoor, Hassan Salah, and Zafar Mirza. 2023. "Translating Political Commitments into Actions by Designing and Implementing Packages for Priority Services for Universal Health Coverage in the Eastern Mediterranean Region." *Eastern Mediterranean Health Journal* 29 (12): 980–86.
- Mobinizadeh, Mohammadreza, Efat Mohamadi, Hosein Arman, AmirAshkan Nasiripour, Alireza Olyaeemanesh, and Sara Mohamadi. 2021. "Topic Selection for Health Technology Assessment: An Approach Combining Multiple Attribute Decision Making and Decision Rules." *Medical Journal of the Islamic Republic of Iran* 35: 40.
- Mobinizadeh, Mohammadreza, Poursan Raeissi, Amir Ashkan Nasiripour, Alireza Olyaeemanesh, and Seyed Jamaledin Tabibi. 2016. "A Model for Priority Setting of Health Technology Assessment: The Experience of AHP-TOPSIS Combination Approach." *DARU Journal of Pharmaceutical Sciences* 24 (1): 1–12.
- Mohamadi, Efat, Alireza Olyae Manesh, Amirhossein Takian, Reza Majdzadeh, Farhad Hosseinzadeh Lotfi, Hamid Sharafi, Matthew Jowett, et al. 2020. "Technical Efficiency in Health Production: A Comparison between Iran and Other Upper Middle-Income Countries." *Health Policy and Technology* 9 (3): 335–47.
- Mohamadi, Efat, Amirhossein Takian, Alireza Olyaeemanesh, Arash Rashidian, Ali Hassanzadeh, Moaven Razavi, and Sadegh Ghazanfari. 2020. "Health Insurance Benefit

- Package in Iran: A Qualitative Policy Process Analysis." *BMC Health Services Research* 20 (1): 722.
- Mohammadi, Effat, Ahmad Reza Raissi, Mohsen Barooni, Massoud Ferdoosi, and Mojtaba Nuhi. 2014. "Survey of Social Health Insurance Structure in Selected Countries; Providing Framework for Basic Health Insurance in Iran." *Journal of Education and Health Promotion* 29 (3): 116.
- MoHME (Islamic Republic of Iran, Ministry of Health and Medical Education). 2020. "Implementation Process for Reviewing and Determining the Level and Coverage of the Basic Health Insurance Package in the Country." Secretariat of the Supreme Council of Health Insurance.
- Mohtasham, Farideh, Reza Majdzadeh, and Ensiyeh Jamshidi. 2017. "Hospital-Based Health Technology Assessment in Iran." *International Journal of Technology Assessment in Health Care* 33 (4): 529–33.
- Mohtasham, Farideh, Bahareh Yazdizadeh, Zahra Zali, Reza Majdzadeh, and Sima Nedjat. 2016. "Health Technology Assessment in Iran: Barriers and Solutions." *Medical Journal of the Islamic Republic of Iran* 30: 321.
- Moradi, Najmeh, Arash Rashidian, Shirin Nosratnejad, Alireza Olyaeemanesh, Marzieh Zanganeh, and Leila Zarei. 2019. "Willingness to Pay for One Quality-Adjusted Life Year in Iran." *Cost Effectiveness and Resource Allocation* 17 (1): 1–10.
- Mounesan, Leila, Saharnaz Nedjat, Reza Majdzadeh, Arash Rashidian, and Jaleh Gholami. 2013. "Only One-Third of Tehran's Physicians Are Familiar with 'Evidence-Based Clinical Guidelines.'" *International Journal of Preventive Medicine* 4 (3): 349–57.
- NIHR (Iran's National Institute of Health Research). 2023. "A Snapshot on the Health of the Islamic Republic of Iran." <https://nihr.tums.ac.ir/ZbAso>.
- Nosratnejad, Shirin, Arash Rashidian, Mohsen Mehrara, Ali Akbari Sari, Ghadir Mahdavi, and Maryam Moeini. 2014. "Willingness to Pay for Social Health Insurance in Iran." *Global Journal of Health Science* 6 (5): 154.
- Nouhi, Mojtaba, Rob Baltussen, Seyed Sajad Razavi, Leon Bijlmakers, Mohammad Ali Sahraian, Zahra Goudarzi, Parisa Farokhian, et al. 2022. "The Use of Evidence-Informed Deliberative Processes for Health Insurance Benefit Package Revision in Iran." *International Journal of Health Policy and Management* 11 (11): 2719–26.
- Pileroudi, Sirous, Kamel Shadpour, and Hassan Vakil. 1981. *Overview of Health and Medical Education*. Tehran: Training Campus of Ministry of Health.
- Rahbari Bonab, Maryam, Reza Majdzadeh, and Fatemeh Rajabi. 2023. "A Cross-Country Study of Institutionalizing Social Participation in Health Policymaking: A Realist Analysis." *Health & Social Care in Community*, April 20, 2023. <https://doi.org/10.1155/2023/1927547>.
- Sajadi, Haniye Sadat, Elham Ehsani-Chimeh, and Reza Majdzadeh. 2019. "Universal Health Coverage in Iran: Where We Stand and How We Can Move Forward." *Medical Journal of the Islamic Republic of Iran* 33: 9.
- Sajadi, Haniye Sadat, Fateme Gholamreza Kashi, and Reza Majdzadeh. 2020. "Identifying National Health Priorities: Content Analysis of the Islamic Republic of Iran's General Health Policies (GHPs)." *World Medical & Health Policy* 12 (2): 123–36.
- Sajadi, Haniye Sadat, Hamidreza Safikhani, Alireza Olyaeemanesh, and Reza Majdzadeh. 2024. "Challenges in Institutionalizing Evidence-Informed Priority Setting for Health Service Packages: A Qualitative Document and Interview Analysis from Iran." *Health Research Policy and Systems* 22 (110): 1–13.
- Sajadi, Haniye Sadat, Stephen Gloyd, and Reza Majdzadeh. 2021. "Health Must Be a Top Priority in the Iran Nuclear Deal." *The Lancet* 397 (10289): 2047–48.
- Sajadi, Haniye Sadat, Zahra Goodarzi, Amirhossein Takian, Efat Mohammadi, Alireza Olyaeemanesh, Farhad Hosseinzadeh Lotfi, Hamid Sharafi, et al. 2020. "Assessing the Efficiency of Iran Health System in Making Progress towards Universal Health Coverage: A Comparative Panel Data Analysis." *Cost Effectiveness and Resource Allocation* 18 (1): 1–11.

- Sajadi, Haniye Sadat, Mohamed Jama, and Reza Majdzadeh. 2023. "Institutionalisation Is a Vital Element for Fairness of Priority Setting in the Package Design if the Target Is Universal Health Coverage; Comment on 'Evidence-Informed Deliberative Processes for Health Benefits Package Design—Part II: A Practical Guide.'" *International Journal of Health Policy and Management* 12 (Continuous): 1–4.
- Sajadi, Haniye Sadat, and Reza Majdzadeh. 2019. "From Primary Health Care to Universal Health Coverage in the Islamic Republic of Iran: A Journey of Four Decades." *Archives of Iranian Medicine* 22 (5).
- Sajadi, Haniye Sadat, Farkhondeh Alsadat Sajadi, Maryam Yaghoubi, and Reza Majdzadeh. 2022. "Informal Payments for Outpatient Health Care: Country-Wide Evidence from Iran." *Medical Journal of the Islamic Republic of Iran* 36 (1): 409–15.
- Soucat, Agnes, Ajay Tandon, and Eduardo Gonzales Pier. 2023. "From Universal Health Coverage Services Packages to Budget Appropriation: The Long Journey to Implementation." *BMJ Global Health* 8 (Suppl 1): e010755.
- Takian, Amirhossein, Azam Raoofi, and Sara Kazempour-Ardebili. 2020. "COVID-19 Battle during the Toughest Sanctions against Iran." *The Lancet* 395 (10229): 1035.
- WHO (World Health Organization). 2020a. "PHC Country Profile: Islamic Republic of Iran." Fact sheet, WHO, Regional Office for the Eastern Mediterranean. http://www.emro.who.int/images/stories/phc/iran_phccp.pdf?ua=1.
- WHO (World Health Organization). 2020b. *Principles of Health Benefits Packages*. Geneva: WHO.
- World Bank. 2022. "Islamic Republic of Iran." Country Overview. <https://www.worldbank.org/en/country/iran/overview>, accessed December 17, 2023.
- World Bank. 2023. *Open and Inclusive: Fair Processes for Financing Universal Health Coverage*. Washington, DC: World Bank.
- Yazdani, Shahram, and Mohammad-Pooyan Jadidfard. 2017. "Developing a Decision Support System to Link Health Technology Assessment (HTA) Reports to the Health System Policies in Iran." *Health Policy and Planning* 32 (4): 504–15.
- Yazdizadeh, Bahareh, Safoura Shahmoradi, Reza Majdzadeh, Shila Doaee, Mohammad Bazyar, Aghdas Souresrafi, and Alireza Olyaeemanesh. 2016. "Stakeholder Involvement in Health Technology Assessment at National Level: A Study from Iran." *International Journal of Technology Assessment in Health Care* 32 (3): 181–89.

