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Strengthening the primary health care system in the face of emerging and re-emerging epidemics — provide a native and Applicable model based on best practices of countries

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Strengthening the primary health care system in the face of emerging and re-emerging epidemics; Providing a native and applicable model based on best practices of countries

Short title: Primary healthcare in epidemics

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ABSTRACT

INTRODUCTION: Disasters affected the primary health care system in many ways. Maintaining primary health care services is a challenging issue during disasters such as epidemics. A review was conducted to study the lessons learned and successful experiences of other countries in opposing the spread of infectious diseases using the capacity of primary health care.

MATERIAL AND METHODS: The present study is a comprehensive review of countries' experiences, successful models, and structural components for development of a model for Iran. A systematic search with suitable keywords was conducted in many databases including web of science, PubMed, Scopus, Science Direct, Google Scholar, and Persian databases; Magiran, and SID.

RESULTS: The results showed that generally, the successful actions of countries in case of emergency are divided into disaster cycles including preparedness, response, and recovery. PHC can help health systems to identify new epidemics through surveillance system as an early warning system. Because of the importance of continuity of care in primary health care facilities, business continuity plans are needed.

CONCLUSIONS: In order to use the consequences and play an effective role in this field, Iran should use the country's capacity and inter-sectoral cooperation to establish a comprehensive system for telemedicine programs Providing people with doctors and health professionals can strengthen the performance of the primary health care system finally can strengthen the performance of the primary health care system.

KEY WORDS: disaster; primary health care; epidemics; infectious diseases

INTRODUCTION

By definition, the primary health care (PHC) approach as the first level of contact of the community with the health system, includes a wider range of vital and basic health, medical and social services in the field of integrated health promotion, prevention, treatment, rehabilitation and palliative interventions based on the principle of justice in access for individuals in the community [1, 2] which, with its appropriate implementation in countries, creates suitable conditions for the diagnosis of the disease in the early stages and prevention at the secondary levels [3].

Primary health care is an approach that, due to the principles such as justice, cross-sectoral cooperation, public participation, comprehensiveness of services, and the use of appropriate technology, was accepted by the international community in 1978 to attain many goals, including justice in access to services for all. The path has been set for the universal right to health and well-being for all [4, 5]. During this period, numerous meetings and reports have highlighted the prominence and necessity of primary health care, and in the current century, the achievement of universal health coverage (UHC) has required the strengthening of primary health care [6]. For example, the Astana Declaration states that in October 2018, all countries ratified the values and principles of primary health care and pledged to follow these principles in their health systems. This declaration considered comprehensiveness, people-

centeredness, integrated services, effectiveness, and cost-effectiveness of primary health care [7].

The current population of Iran is near 85 million people. Therefore, in Iran, the design and implementation of the primary health care system began in the last 50 years. In 1985, the system of health and medical networks began to work. Over recent decades, Iran has built a strong PHC system on a large scale, starting with a rural community health worker (CHW) program and then an urban CHW program. In the past decade, the family practice system has become a fundamental element of PHC in the Islamic Republic of Iran. In Iran, there are 11 family physicians per 10 000 population [8, 9].

Importance and role of primary health care in disasters

One of the highlights of primary health care in epidemics is the importance of maintaining access to primary care and the ongoing management of health problems that affect local people [10]. The models provided for responding to the epidemic crisis should be used to strengthen health systems in the face of future public health emergencies and the ability to respond to growing challenges and chronic pressures [11].

When emergencies and disasters occur, such as the spread of infectious diseases, there is often an imbalance between increased health needs and limited resources in the affected community. Using the PHC approach in an emergency means integrating its principles into all activities that increase the capacity of communities to prepare for, respond to and recover from emergencies [12]. Consequently, to meet the emergency needs of public health, there is no choice but to strengthen the PHC system, prepare the health system for timely response and create community-based public health facilities against harm [13].

Nonetheless, the fact that makes the role of primary health care more noticeable in the society is the position of the society in case of emergency and re-encounter with previous infectious diseases, especially new and unknown diseases, which should be caused by targeted learning, education, and planning and implementation of models, upgrading as well as improving the performance of this system in case of community emergency [14].

The recent epidemic crisis demonstrates the importance of putting the primary health care system at the core of health systems, which play a key role in tackling and controlling an unexpected event and maintaining the continuity of previous health care. Therefore, strong

and organized primary health care with integrated health services for community members helps to provide a successful response in the health system [15].

Studies have revealed that policy responses must address both direct and indirect threats for health systems to be resilient to shocks to community health and health care systems such as epidemics [16]. As a result, strong primary health care as the front line of all health systems plays a key role in this concern [13].

Why do this study?

The aim of this research is to study the lessons learned and successful experiences of other countries in opposing the spread of infectious diseases using the capacity of primary health care.

Material and methods

The present study is a comprehensive review to examine countries' experiences, successful models, and structural components, a process to strengthen the pattern of primary health care in emergencies such as infectious disease crises.

A comprehensive review is a scientific method for gathering scientific evidence for decision-making in health. A regular, scientific, comprehensive, and valid review can prevent systematic errors in the design and review of the literature and the bias of the result [17].

The research method in this study included articles that addressed the importance of primary health care in emergencies and ways to strengthen the appropriate response to these conditions. English studies were extracted using a web of science, PubMed, Scopus, Science Direct, Google Scholar databases, and Persian studies, Magiran, and SID databases were searched, retrieved through advanced search and design of a coherent search strategy.

To search, the English keywords of PHC, Primary Health Care, Emergency, Best Practices Response, Strengthening, Preparedness, Disasters, Communicable Disease, COVID-19 health system and Persian keywords of primary health care, disasters, emergencies, response, COVID-19, epidemic, infectious disease were used from 2010 to 2021 AD and 1393 (2014) to 1400 (2021) AH.

To select appropriate studies from the items found in the search, two researchers reviewed the articles and deleted similar items as an inclusion criterion and the period. The titles of the articles were then discussed, and studies that were not in line with the topic were left out. Each researcher read abstracts of the remaining articles, and the eligible items for inclusion in the study were selected. In cases of disagreement, an agreement was reached through discussion and exchange. The final screening was done from the original manuscript of the texts. A selection of articles expressing the lessons learned from successful countries in controlling communicable diseases was on the agenda (Fig. 1).

At the end of the screening, eight original articles, one book, two reports, two guidelines, two policy packages, and a total of 15 studies were selected (Tab. 1). The research team selected the following research questions to review the texts:

- What is the general goal of each study in strengthening the primary health care system in an emergency?
- What is the approach of each article in promoting primary health care as a successful experience?
- What are the basic capacities mentioned in the texts for controlling the emergence of contagious diseases in each country?
- Regarding the luxurious capacities in the health care network system of the country and the counted experiences and models, how can a useful and valuable model in Iran be explained?

Each study, in this regard, taking into account the results: data extraction from selected studies, was done by two researchers, in addition to examining the general characteristics (title, year of publication, country, authors, style of texts), included the objectives of each study and its results. With the research team's decision, successful experiences in strengthening health care in case of emergency were extracted from articles, documents, and reports based on research questions and presented in Table 2.

Finally, the pattern presented by several experts was reviewed to be usable and applicable to all people and health policymakers according to the conditions and capabilities of the country. This proposed model is a prototype, and due to time constraints, in the future, its validity and reliability will be evaluated using the Delphi method.

Findings

The results showed that generally, the successful actions of countries in case of emergency are divided into two categories of preparedness and response. In the pre-emergency and disaster prevention and preparedness phases, measures include what is planned and implemented to strengthen the primary health care system. Other activities are activated in the response phase and response to the control of the detected disease outbreak.

Most of the studies that pointed to ways to strengthen the PHC system considered primary health care as the first point of contact for patients in the health system. The family physician program was a core action in PHC. Canada, for example, has used the Family Physician Program well to control the disease. In Canada, the care system has also been used to collect, analyze and use data promptly to strengthen primary health care. Countries in the UK collect health information using PHC capabilities as the gateway to the health system. Other features of the use of evidence and information recording include creating a rapid alert system for timely notification of emergencies of a disease, which has been made possible with the help of the care system. Another case that can be implemented before spreading infectious diseases is identifying vulnerable groups (the elderly, people with underlying and specific diseases, low-income, and marginalized communities). Continuing care in special situations for this group of people has been an effective measure to empower primary care in countries such as Canada and the United Kingdom because these people face two health threats in these conditions [10, 18–23].

One study found that people with poor economic conditions, which are in vulnerable groups, are more exposed to the disease. In the UK, the Office for National Statistics (ONS) reports that deaths from COVID-19 in low-income areas are more than twice as high as in high-income areas, and in the US, people in slums are six or seven times more likely to get the disease than in affluent areas [15].

Other studies have focused on controlling the epidemics and have offered solutions that include timely identification of people at risk, screening, testing and diagnosis, tracking, and quarantine using PHC capabilities [24].

Several studies have shown that in emergencies, strengthening the principles of PHC and using its capacities to control the disease reduces the pressure on the health system [12, 25].

Remote care and home care in epidemics is another way to reduce the incidence of disease and at the same time continue to provide services and care to individuals and patients using appropriate technology and methods. This method was used to monitor and track identified and diagnosed patients. Home care has eased the pressure on hospitals in Spain, Canada, and the United States [19, 22, 23].

Governments play a significant role in health policy-making in leading in the event of an emergency as policy decisions made in these circumstances to upgrade the primary care system including re-configuration to innovative roles are all to maintain the continuity of services according to the needs of patients and people in all dimensions [26, 27].

Based on the literature review findings, it can be concluded that the primary care system, according to the identified capacities and components, has sufficient ability to adapt to the occurrence of emergencies and disasters. However, to align and achieve the main goals of PHC, in controlling this situation, it is necessary to empower and strengthen all its dimensions [27].

Provide a template and policy package

By analyzing experiences from other countries and pointing to the capacity of Iran in health, via knowing the principles and components of primary health care, and putting these together to strengthen and empower the PHC system in emergencies such as the spread of infectious diseases, a practical model was developed in the country.

Target group

The comprehensiveness of this pattern for the use of three groups of users was considered in the design. Health policymakers as macro-level decision-makers who propose and offer policies using good governance. This model provides several policy recommendations for short-, mid-,and long-term strategies for policymakers. Managers at various health system levels are responsible for enforcing instructions, taking action, and overseeing the proper implementation of these items. People are the third group. Instructions are provided as the duties of the people in these circumstances and are given in the template as a guide.

Feature expression

In order to adapt the model to the emergency conditions of the outbreak in the country based on the disaster management cycle, the components of the model are depicted in three stages

before, during, and after the disease outbreak crisis, and the necessary measures are mentioned according to the conditions. Using a standard format for modeling, the required components appropriate to the country's conditions were extracted by the research team and placed in the mold. According to the need, changes were made in the shape of the pattern.

In each phase, the model's components include items that are suggested to be planned by policymakers, implemented by managers, and presented to the public to control infectious diseases.

Managers as leverage the implementation of instructions and actions

In the system of providing services and levels of health services of the Iranian health system from the lowest level, rural health houses and urban health bases, to the highest authority, the Ministry of Health, Treatment and Medical Education, which is in charge of health in the country, managers as coordinators are present in Executive affairs. The division into provincial sub-groups and universities of medical sciences and various deputies in the executive spheres have been formed for this purpose.

In an epidemic of infectious diseases, health system managers have an important responsibility at all levels. They need to implement and monitor the implementation steps provided by policymakers and experts. It is necessary to establish communication between managers at the top-down levels and vice versa.

Executive steps for managers at the level of medical universities, vice-chancellors, health centers, and the network system

Executive instructions as a guide for people

All actions and decisions in health care based on people; health is a human and universal right for all societies, and governments have a responsibility to ensure and promote it. However, it must be said that this will not happen without the cooperation of the people themselves. People's participation in all matters, from decision-making at the management level to implementation by each person, counts.

In the following, public participation interventions to control the spread of infectious diseases according to the presented model are presented at three levels.

DISCUSSION AND CONCLUSION

The spread of epidemics has affected many people's lives physically, mentally, economically, and socially and puts much pressure on health systems to be described as a critical emergency. Following the mentioned cases, in order to respond to the health and other dimensions affected by this situation, the establishment of the performance of the primary health care system in this critical situation is one of the effective and important measures [11].

Originally, to know the prevalence of infectious disease, the role of *observational databases* established in the form of the disease care system and to study important information about diseases, it is felt in the timely identification of clients with a type of symptom that indicates an epidemic in an area. Other measures such as prompt warning, tracking, and control, and identification of entry and exit routes to prevent the spread of the disease should then be on the agenda. Though the impact of this program in some cases due to poor infrastructure in identifying, analyzing data, and its proper use is not seen, although its existence is necessary [28].

One of the most important challenges that the primary health care system faces during the epidemic is the search and continuity of providing services and health care to individuals, especially patients with specific and chronic diseases. There has been a 76% reduction in people with cancer attending chemotherapy sessions in the UK. In the United States, cancer prevention screening has dropped by 8%. This evidence suggests that individuals, especially those with underlying diseases, delay receiving the necessary health care due to fear of being exposed to the disease [18].

To address this challenge, countries have begun to reconfigure services in the primary health care system. As the first point of contact in Iceland, primary health care centers were responsible for identifying high-risk patients and providing the necessary training, especially for patients with COVID-19 disease. To continue the care to monitor the condition of individuals or contact the centers to receive routine or necessary services in this group, telemedicine was used with the help of telephone and video calls. A similar policy was

implemented in Slovenia, Ireland, and Canada. In Austria and Australia, in addition to the above, there are pre-hospital triage and referral and establishment of respiratory clinics under the guidance of a family doctor to control the spread of infection from potentially infected people from other public and emergency departments. In France, to increase capacity, celebration and sports halls were used to refer patients with mild symptoms but with underlying diseases [20].

To implement this method of care in Iran, despite the urban and rural family physician program and using the ability of the *referral system* between service levels, coordination, and management of clients should be done by the primary *health care system* and in the health network [29]. This will eliminate unnecessary referrals due to concerns about specialized services and reduce the burden on hospitals and higher levels. To cut the transmission chain in rural areas, the family doctor and the health team have built many capabilities by relying on rural health houses.

Because epidemics have many economic and social effects on people in the community, rising unemployment, loss of income, reduced working hours, and quarantine adversely affect socially and economically vulnerable groups and exacerbate existing health inequalities, and lead to restricted access to and use of protective equipment and disinfectants to comply with health protocols, the need to follow up and care for the poor and vulnerable in society is increasingly needed due to the lack of access to health liter access.

One of the challenges facing the onset of an epidemic is the increasing pressure on hospitals and health centers and the health workers working in these centers, and it is at this point, that the role of the primary health care system becomes more prominent. The cancellation or postponement of unnecessary surgeries and elective surgeries should be made to free hospital space to increase the capacity to provide services to patients [17].

Since during the outbreak of the disease, in addition to putting pressure on medical centers, a burden is placed on health workers active in these centers, such as doctors and nurses, and during this period, it continues to increase; in countries such as Canada, the Netherlands, Portugal, and the United States have allowed pharmacists to take on some of the tasks of physicians and spend their time more effectively on more complex cases to minimize the number of health consultations by physicians. To this end, they were allowed to deploy prescriptions beyond what they had previously been authorized to do and conduct COVID-19 diagnostic tests and play a broader role during the epidemic.

To reduce the burden of such practices, the capacity of health workers to provide services can be used, as in the United States and the United Kingdom. During the epidemic crisis, these forces can assess the physical and mental health of community members, assess the availability and demand for drugs, educate communities to prevent the spread of epidemics, and follow up and track patients through telecommunication, providing timely and accurate information about the dimensions and forms of the epidemic and ensuring that people in the community have access to this information [10, 26].

This capacity is much higher in Iran due to medical students, trained military personnel, NGOs, jihadi groups, and health experts, and its use will create resilience among health system staff. Another suggestion for improving the health team's resilience is to reward and pay incentives to motivate and increase productivity, which, despite limited financial resources, should be considered as a way to address this issue.

In the meantime, health experts present in urban health centers (environmental and occupational health; environmental and occupational health group) and other members of the care team (mental health, nutrition, public health experts, and health workers) can be mentioned in monitoring the observance of hygienic principles during the outbreak of the disease, which includes a wide range of groups exposed in public and occupational places, and stops and reduces the spread of the disease.

Benefited from the capacity of each house to design a health base and strengthen the neighborhood council in creating healthy neighborhoods with the help of health connections to teach the essentials in preventing and breaking the transmission chain.

During the epidemic, intending to reduce the risk of transmission, maintain the quality of care, and continue intensive care for people at risk and with the underlying disease leading to the development and implementation of some primary and hospital health care programs at home and residence. To that end, Canada, Slovenia, and the United States formed health care teams that included services ranging from health education to more sophisticated health needs such as rehabilitation care, medication management for baseline patients, and patients with dementia. Also, in France, these teams perform a coronary diagnostic test called COVISAN in the community to prevent the transmission of the virus. At large, the aim of implementing this program is to reduce the anxiety and fear of clients and prevent the spread and transmission of the virus and reduce the number of infected people in the community [30].

The use of the Home Care program by the care team, including nurses and health workers, for the sick or elderly under the supervision of a family physician and by health centers is an appropriate executive policy that should be considered. The presence of health workers as health care providers in remote villages and areas with low access has created a high potential for implementing control measures, information, and training.

The Islamic Republic of Iran has also had significant growth in discussing the primary health care system and the provision of health services and has provided potential facilities and capacities to provide services. Nevertheless, we need to examine the weaknesses of this system to improve its performance, especially in emergencies. Among the existing capacities in the country, we can mention the *health houses* and urban and rural health bases that are available under the name of the primary health care system and as the first point of contact with the health care system [31].

Despite the country having a systematic and powerful system, we still see this system's poor performance and centers. Since these centers have specialized personnel such as doctors, experts, health technicians, and health workers, their capabilities and facilities can respond to the challenges and problems created during the epidemic crisis. Using this capacity to triage and isolate symptomatic and asymptomatic infected individuals, as well as reporting and collecting information from members of each base, collecting accurate information about the epidemic and transmitting it to members, and using it to train caregivers to reduce fear and anxiety at this time, are only some of the measures provided by these centers, which can take a big step to control and manage critical situations [31].

One of the policies that were made in the direction of using digital equipment and effective response to the epidemic crisis was telecommunications by telephone and similar communication tools for easier access to doctors and health professionals. In many countries, people with mild symptoms could seek medical and health advice while at home [32].

In other countries, the electronic record and medical record systems are recognized as essential measures to respond to the challenges of the epidemic. Using this system, patients with the underlying disease can be easily identified and tracked, and the necessary care, especially during this crisis, can be provided to them. In addition to breaking the chain of transmission of the virus, this capacity prevents congestion and disorder in medical centers and increases the physical and mental capacity of staff in the health care unit for more critical

cases. Countries that have used this policy include Norway, Canada, Poland, Japan, Belgium, and many others worldwide [33].

The Iranian healthcare system also has the possibility of having a SIB system, which has a similar policy following what has been said but is not used as it should be and has not been able to show acceptable performance in responding to challenges and facilitation. To improve the performance of this system, all medical and health measures related to the members of each center or base must be accurately recorded so that they can be sufficiently used in situations such as the epidemic crisis.

In order to use the consequences and play an effective role in this field, Iran should use the country's capacity and inter-sectoral cooperation to design and establish a comprehensive system for the implementation of telemedicine programs for telecommunications. Provide people with doctors and health professionals and get medical advice so that, according to what has been said in the experiences, we can strengthen the performance of the primary health care system in this way.

The historical memory of several East Asian countries in the effective fight against the recent epidemic has shown that the most important lesson is to maintain and strengthen public trust. Lack of trust in the people causes governments to fail in the face of these kinds of diseases. The results also showed that a high percentage of deaths due to infectious diseases had at least one underlying disease. According to studies, countries that have already addressed the importance of non-communicable disease control and the provision of services for primary prevention and identification of individuals for care have been more successful in controlling the spread of communicable diseases. This evidence indicates the need to strengthen and emphasize more on the system of non-communicable diseases (Irapen), the implementation of which is key in the country, and better attention to the infrastructure created in the system

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Table 1. General characteristics of selected studies

Type of study	Number	Language	Country
Article	10	English	UK, Canada, USA, Iran, Southeast Asia, a group of Organization for Economic Co-operation and Development (OECD) countries (France, Australia, Netherlands, Portugal, etc.)
World Report	2	English	World Southeast Asia Forum, a group of countries
Guide	2	English	Canada, Qatar
Book	1	English	USA
Policy	2	English	OECD countries, Iran
	2	Persian	

package			

Table 2. General characteristics and findings extracted from selected studies

	characteristics	
Subject	Study type	Article
The significance of primary health care for building back better: lessons from COVID-19	Country/Language/Year	Southeast Asia/English/2021
	Author	Alaka Singh
	Objective	Better restructuring of services in Southeast Asia and beyond with the aim of assessing current weaknesses in health systems and the dispersion of practices and services and making changes to improve accountability, flexibility and the ability to deliver better and fairer health outcomes
	Results	This set speaks about emerging insights and opportunities created for COVID-19 epidemic adaptation as well as the urgent need for more attention and investment in PHC before the health and economic impact of the epidemic. To strengthen PHC in control of COVID-19, the need for a commitment to a health vision for all, through investment in a cohesive government, financing and structural reform, attention to leadership, government and policies, proper resource allocation and community participation when it occurs Epidemic conditions are important.
The coronavirus outbreak: the central role of primary care in emergency preparedness and response	Study type	Article
	Country/Language/Year	United Kingdom/English/2020
	Author	Luke N Allen
	Objective	Prepare for rapid response to epidemics using primary health care capacity in disease control
	Results	Immediately after start of the epidemic, the countries' readiness to identify and track cases of the disease from the country of origin begins. The role of the Centers for Disease Control and General Practitioners is important in identifying cases. The role of primary health care in the implementation of disaster management steps for health-related emergencies and the completion and continuation of the disaster

	characteristics	
		management cycle in order to identify, track, quarantine and disseminate data along with the provision of integrated and regular services has been accepted.
Lessons on the COVID-19 pandemic, for and by primary care professionals worldwide	Study type	Article
	Country/Language/Year	worldwide/English/ 2020
	Author	Salman Rawaf
	Objective	Summarize the experiences of international primary care systems and the lessons learned about positioning and supporting primary care across health systems to meet future epidemic challenges.
	Results	The role of primary health care in the health system changes when conditions such as the COVID-19 epidemic occur. Primary care plays an important role during and after an epidemic. Three lessons learned from primary health care as the first point of contact in the health system: 1. Primary care has the ability to change quickly and innovatively with clients 2. The importance of continuous access to care and management for all health problems 3. Collection and the dissemination of fine-tuned information that may be appropriate for the purposes. The users of this information are ((public, patients, doctors or policy makers.
Strengthening the frontline: How primary health care helps health systems adapt during the COVID-19 pandemic	Study type	Article
	Country/Language/Year	A group of countries/English/2021
	Author	OECD
	Objective	Investigating the impact of COVID-19 on the lives of people with chronic diseases, as well as how primary health care systems play a role in responding to epidemics
	Results	Because the COVID-19 crisis and epidemic has direct and indirect effects on everyone, including those living with chronic conditions, one of the most effective ways to reduce these effects is to upgrade, strengthen and improve the performance of the primary health care system (PHC). In line with each of the dimensions of this system in emergency situations by following the studies and achievements and successful results of other countries.
The Role of	Study type	Article

	characteristics	
Primary Care in a Pandemic: Reflections During the COVID-19 Pandemic in Canada	Country/Language/Year	Canada/English/2020
	Author	Kearon, J.
	Objective	Study and identification of barriers in primary health care systems during the COVID-19 epidemic and efforts to address them
	Results	Problems identified:
Primary health care beyond COVID-19: dealing with the pandemic in Cameroon	Study type	Article
	Country/Language/Year	Cameroon/English/2020
	Author	Ngo Bibaa, L. O.
	Objective	Investigating the role and function of primary health care during the COVID-19 epidemic in Cameroon
	Results	Provide a model template called (New normal) to strengthen the primary health care system in the face of the COVID-19 epidemic and use it to prepare for epidemics and emergencies
Beyond the building blocks: integrating community roles into health systems frameworks to achieve health for all	Study type	Article
	Country/Language/Year	USA/English/2018
	Author	Sacks, E.
	Objective	Study, extend, and apply simple changes to the WHO Framework for Healthcare in order to enhance the system's performance in providing services that are named as building blocks. That includes 6 following items:
	Results	1.Providing services. 2. Health workforce. 3. Collecting information. 4. Medical products and technologies. 5. Financing. 6. Leadership and Governance.
Status of Iran's Primary Health Care Status of Iran's primary health care system in terms of health systems control knobs: a review article	Study type	Article
	Country/Language/Year	Iran/English/2017
	Author	Tabrizi et al.
	Objective	Assessing the status of Iran's PHC system (strengths, weaknesses, opportunities and threats)
	Results	Most of the successes of the PHC system in Iran are related to the establishment of health care networks, the role of health, improving the health index in rural areas and meeting urban and rural inequality. Weaknesses: Insufficient financial resources and lack of budget continuity, PHC system is not coordinated in urban areas and there is a continuous decrease in users of urban health centers. The current information system in PHC does not provide the information needed by

	characteristics	
		decision makers and policy makers who feel the need for a file and electronic health system. Modification of this system according to economic changes and social conditions according to the range of chronic diseases, accidents and the elderly population.
Role of Primary Health Care System in Response to a Major Incident: Challenges and Actions	Study type	Guideline
	Country/Language/Year	Qatar/English/2021
	Author	Al-Jazairi, Abdulnasir
	Objective	Study and optimization of methods, protocols and patterns related to the response of the primary health care system (PHC) in emergency situations in order to reduce casualties, people's suffering and damage to infrastructure, also study the role of this system in two parts of the challenges And actions
	Results	Analyze and identify the impact factors in all three major stages of each incident with the background of primary health care (PHC) from the perspective of two parts: challenges, actions and provide solutions and models to change or improve each. The model presented in this guide is based on the disaster and crisis management cycle, which introduces actions in three stages: pre-accident, during-accident and post-accident effects.
COVID-19 Guidance: Primary Care Providers in a Community Setting	Study type	Guideline
	Country/Language/Year	Canada/English/2020
	Author	Ministry of Health (MOH)
	Objective	Provide basic information for dealing with and controlling the COVID-19 pandemic in the form of a guide
	Results	Important points and information during the COVID-19 pandemic in different topics include: 1. Types of virtual and personal care 2. Screening of individuals 3. Experiments 4. Case reports 5. Occupational health is provided in the form of guidelines and instructions.
Key Messages: The Role Primary Health Care in	Study type	Report
	Country/Language/Year	Group of countries/English/2020
	Author	PHCPI (Publication(
	Objective	Expressing the actions of countries due to the existing

	characteristics	
COVID-19Response & Recovery		capacities in the PHC system in the context of the COVID-19 pandemic
	Results	1. A strong PHC is the front line of a country's response to outbreaks and infectious crises such as COVID-19 (from diagnosis to vaccination along with other comprehensive needs of the people) 2. PHC is able to provide essential and routine health care services to prevent more Disease and mortality during pandemic. 3. The impact of the role of health workers and infrastructure in building trust among the people is important. 4. Preparedness to deal with other future crises by governments investing in effective and inclusive primary health care to protect health and achieve universal health coverage (UHC) is essential.
Primary Health (Care (PHC Approach in Emergencies	Study type	Report
	Country/Language/Year	World Assembly/English/2010
	Author	WHO
	Objective	Adapting primary health care objectives and components to disaster management during health emergencies to strengthen the PHC system
	Results	1. In addition to the PHC preparedness and response approach, community empowerment and flexibility, self-care, production and use of information systems, and rapid alerts need to be improved. 2. Establish cross-sectoral coordination to increase community participation throughout the disaster management cycle. 3. During a disaster, it is important to maintain the functioning of community-based care, referral system and adaptation to meet new needs. 4. Continuous training before disasters will increase response capacity.
Realising the Full Potential of Primary Health Care	Study type	Policy Brief
	Country/Language/Year	OECD/English/2020
	Author	OECD
	Objective	Efficient and effective use of the capacity and facilities of the primary health care system
	Results	In order to provide high quality and accessible people-centered primary health care, more needs to be done to strengthen primary health care. Important solutions to

	characteristics	
		upgrade this system include the following: 1. Appropriate resources. 2. Proper organization. 3. Correct evaluation. 4. encouraging and favorable payments.
Governments' Response to the Covid-19 Crisis Lessons Learned for Future Policymakers to Tackle the Epidemic of Infectious and Emerging Diseases	Study type	Policy report
	Country/Language/Year	Iran/Persian/2021
	Author	Masood Mousavi
	Objective	Provide lessons learned, including strengthening the structures of the health system within the framework of good governance and better and more effective use of the capacity of the health network
	Results	According to the findings, the failure of countries to cope with COVID-19 disease was due to the lack of public confidence in governments. To implement national programs, there should be a minimum of social capital within the framework of good governance model. Coronavirus mortality in vulnerable communities with communicable diseases points to the importance of strengthening PHC in the care of people with special conditions. Paying attention to the words of health policy makers before and when these conditions occur as decision makers at the macro level is effective in disease control and coordination between government and institutions.
WALKING THE TALK Reimagining Primary Health Care After COVID-19	Study type	Book
	Country/Language/Year	USA/English/2020
	Author	World Bank
	Objective	1. Provide a robust and redesigned Primary Health Care (PHC) guideline as a reinforcement and broad-based universal health coverage (UHC). 2. Use of this instruction is part of the post COVID-19, which is used both to pull the world out of the COVID-19 trap and to prevent similar catastrophes in the future.
	Results	Provide policy recommendations in line with each of the dimensions and principles of primary health care (PHC) to review and re-formulate government policy after the end of the COVID-19 epidemic and strive to implement and implement sustainable development goals based on studies

	characteristics	
		and Successful achievements of other countries

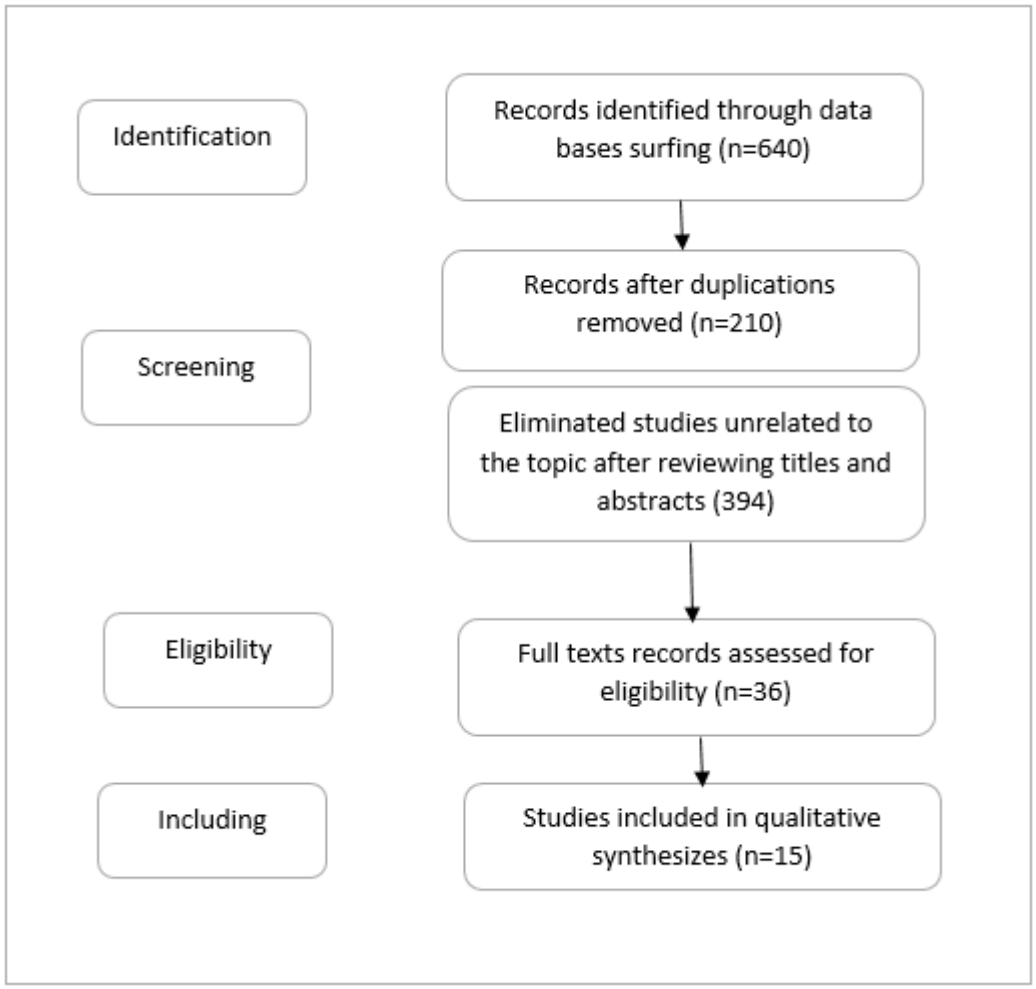

Figure. 1. Diagram of the process of searching and studying articles on the successful experiences of other countries in strengthening primary health care

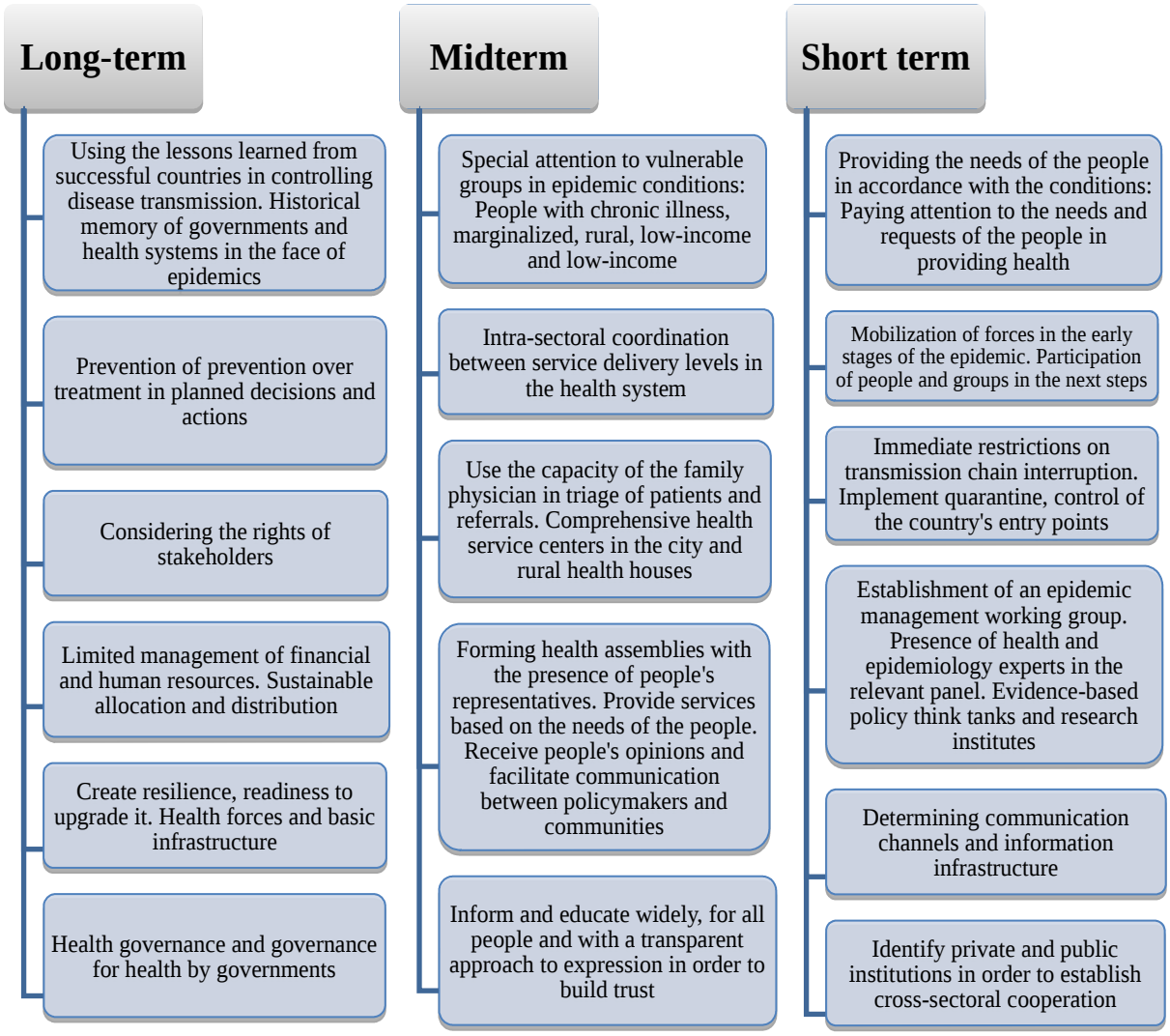

Figure. 2. Country-specific policy recommendations for policymakers

* Utilizing the potentials in the excellent system of the health care network in the mentioned recommendations with the approach of sustainable improvement

** This should be included in all strategies regardless of the time dimension

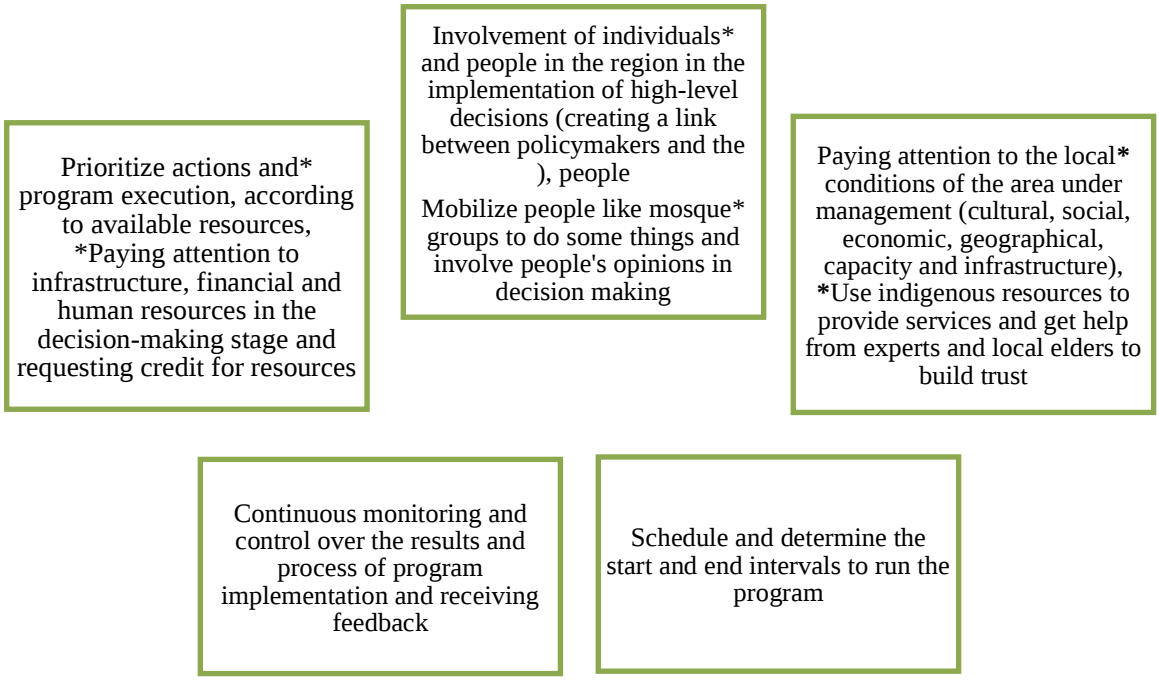

Figure 3. Executive steps for managers

Figure 4. Primary health care provision based on disaster cycle