From Public Health Policy to Impact for COVID-19:

A Multi-Country Case Study in Switzerland, Spain, Iran and Pakistan

Hope for the best,
Prepare for the worst

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Objectives: With the application of a systems thinking lens, we aimed to assess the national COVID-19 response across health systems components in Switzerland, Spain, Iran, and Pakistan.

Methods: We conducted four case studies on the policy response of national health systems to the early phase of the COVID-19 pandemic. Selected countries include different health system typologies. We collected data prospectively for the period of January–July 2020 on 17 measures of the COVID-19 response recommended by the WHO that encompassed all health systems domains (governance, financing, health workforce, information, medicine and technology and service delivery). We further monitored contextual factors influencing their adoption or deployment.

Results: The policies enacted coincided with a decrease in the COVID-19 transmission. However, there was inadequate communication and a perception that the measures were adverse to the economy, weakening political support for their continuation and leading to a rapid resurgence in transmission.

Conclusion: Social pressure, religious beliefs, governance structure and level of administrative decentralization or global economic sanctions played a major role in how countries' health systems could respond to the pandemic.

Keywords: COVID-19, pandemic, governance, health system, public health, COVID-19 restrictions, cross-country comparison, policy responses

INTRODUCTION

Since the World Health Organization (WHO) announced SARS-COV-2 as a public health emergency of international concern on 31 January 2020, countries have applied various strategies to control the spread of the virus [1, 2]. Health systems are key to the response to COVID-19, but are also highly vulnerable to collapse due to the demands posed by the rapid

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Original Article

COVID-19 Pandemic and Comparative Health Policy Learning in Iran

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Abstract

Background: On March 11, 2020, the World Health Organization (WHO) declared the novel coronavirus disease (COVID-1 a global pandemic. Starting in December 2019 from China, the first cases were officially announced on February 19 in Qo city, Iran. As of April 3, 2020, 206 countries have reported a total of 932 166 cases with 46 764 deaths. Along with China, US Italy, Spain, and Germany, Iran has been suffering the hardest burden of COVID-19 outbreak. Worse still, countries like Iran a struggling with the double burden of political sanctions to provide lifesaving medical equipment and medicines to combat t emergency.

Methods: Using systematic document content analysis and through the lenses of health policy triangle, this article aims compare the policies and strategies that Iran is adopting, with the experience and recommendations of China and WHO to comb COVID-19.

Results: Iran has formulated contextual-based policies to combat COVID-19 outbreak before and after virus entrance. Insufficie whole-government, whole-society approach in managing the outbreak, inadequate lifesaving and protective equipment, a delayed decisive governance are the biggest challenges in policy making to combat COVID-19. COVID-19 policies are a pub health concern and require professional advocacy attempts through appropriate inter-sectoral collaboration and whole-governme coalitions.

Conclusion: COVID-19 is an unfolding outbreak; hence, policy learning is crucial to formulate appropriate policies and impleme them accordingly. Iran has made many efforts to defeat the outbreak, but more coherent, timely and efficient action is require now, more than ever, to save lives and slow the spread of this pandemic.

Keywords: COVID-19, Health Policy, Iran, Learning, Pandemic
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Introduction

Coronaviruses are a common family in humans and animals that usually cause respiratory and intestinal infections. Until the outbreak of the severe acute respiratory syndrome (SARS) in 2003 in China, and then the Middle Eastern coronavirus (MERS-CoV), this group of viruses were not considered as dangerous and uncontrollable.[1-3] In December 2019, a novel coronavirus emerged in Wuhan, China, and has since spread rapidly to almost all countries around the world, with an increasing number of patients and victims of the disease.[4,5]

On December 31, 2019, the Health Commission of Hubei province in China reported 27 people with pneumonia of unknown cause. On January 7, 2020, Chinese authorities announced the identification of a new type of coronavirus. On January 11, the number of infected people increased to 41 and the first death due to the virus was reported. Chinese officials reported to World Health Organization (WHO) that the disease first seen among some people who sell seafood and or fresh slaughtered animals.[6] The first case outsid China was reported on 13 January in Thailand.[5] With death toll rising, on January 30, 2020, WHO declar "Global Emergency" and on February 11 announced the novel coronavirus would be called "COVID-19". coincidence of the outbreak with the onset of the Chi New Year and the peak travel time contributed to widespread worldwide outbreak. Cases with mild clir symptoms, and lack of appropriate infrastructure to isc infected individuals, especially in low- and middle-inc countries, are barriers to controlling the disease.[5] March 11, 2020, WHO declared the coronavirus outb a "Global Pandemic".[7] Following the ongoing spread of disease, on March 16, the number of worldwide infe

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l Comparative Health Policy Learning; the 10 Countries

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2019, the world has been facing one of the most critical health threats of the last decades. In March deaths passed 2.6 million worldwide. Most countries have developed policies to control the disease. experienced different outcomes related to their various adapted policies. Complementing our first rt our findings of comparing the policies adopted to combat coronavirus disease 2019 (COVID-19) selected countries, including China, Japan, South Korea, Singapore, Germany, the United States, the Italy, to draw evidence-informed policy lessons.
study conducted based on document analysis related to COVID-19 policies in Iran and nine selected approach, data were extracted and analyzed based on the components of the WHO Building Blocks ared the Iranian policies with the nine selected countries.
revealed a spectrum of policies, which have led to a variety of outcomes. Based on our findings, read testing, comprehensive contact tracing, and timely measures) were the most effective directions

of the first and second waves of COVID-19 showed that the risk of coronavirus is serious and will decisive treatment is achieved. Therefore, countries are required to adopt appropriate and tailored isis effectively. Applying the experiences from the previous waves is essential for more efficient coming waves.
policy, Pandemic, Policy making
Takian A, Haghighi H, Rajizadeh A, Rezaei Z, Radmerikhi S, et al. COVID-19 and comparative health e of 10 countries. Arch Iran Med. 2021;24(3):260–272. doi: 10.34172/aim.2021.37.

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unknown type of pneumonia
ei province, China, which was
disease 2019 (COVID-19).[1]
in increasing number of cases,
World Health Organization
D-19 outbreak as a "Public
national Concern" (PHEIC).[2]
roughout the world, and on
) finally declared COVID-19
ic".[3] So far, the pandemic has
threat to health, social welfare,
ing in recent history,[4] to the extent that the United Nations (UN) Secretary General has cautioned that *"the world faces the most challenging crisis since World War II"*.[5]

Ever since the outbreak was announced in China, the WHO has been at the center of global coordination for data analysis, advice provision and assisting countries for preparation in combating the pandemic[1], including regular reports on the epidemical situation of the disease and the COVID-19 Strategic Preparedness and Response Plan.[6]

Recent epidemics, i.e. severe accurate respiratory syndrome (SARS) of 2003, H1N1 influenza of 2009, and Middle East respiratory syndrome (MERS) of 2012

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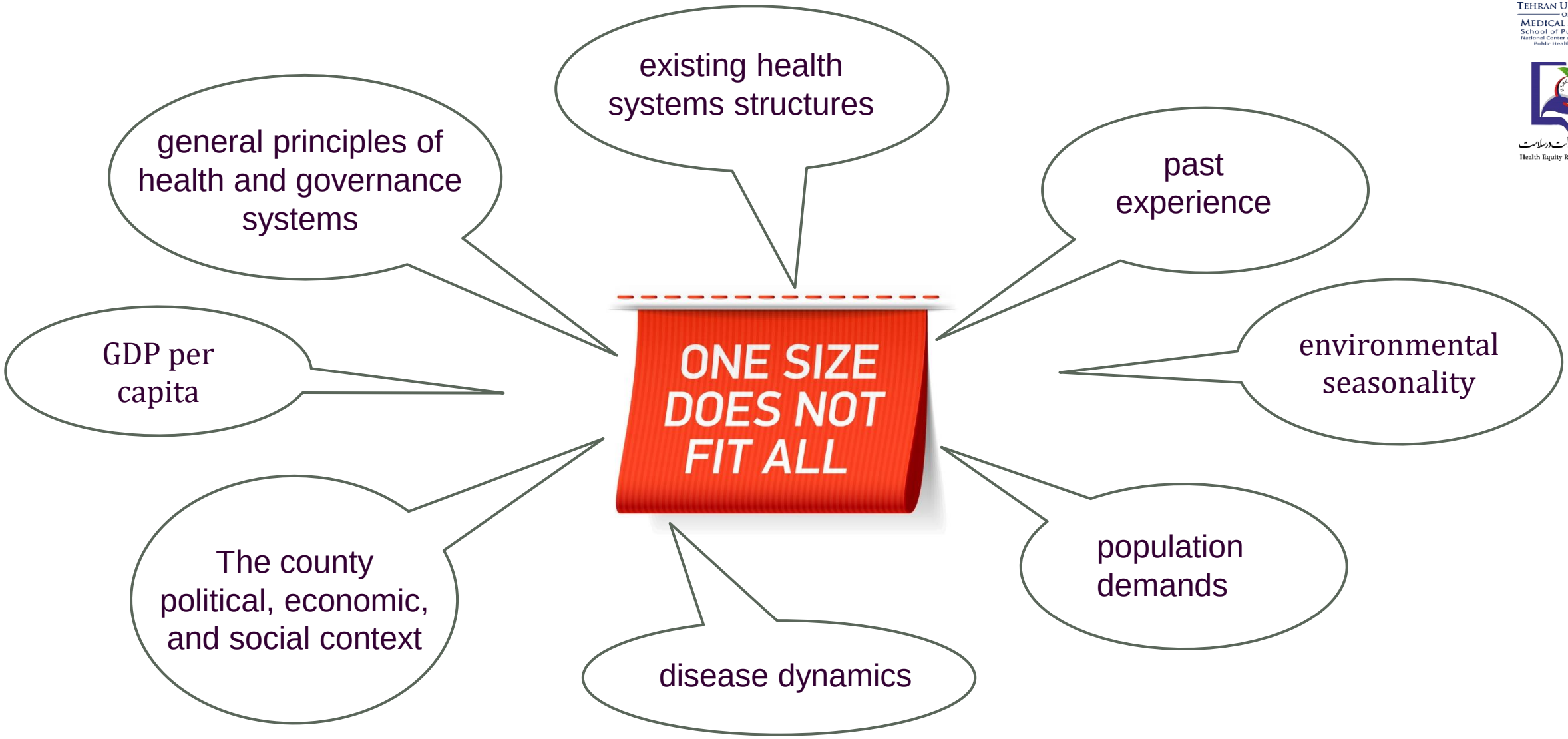
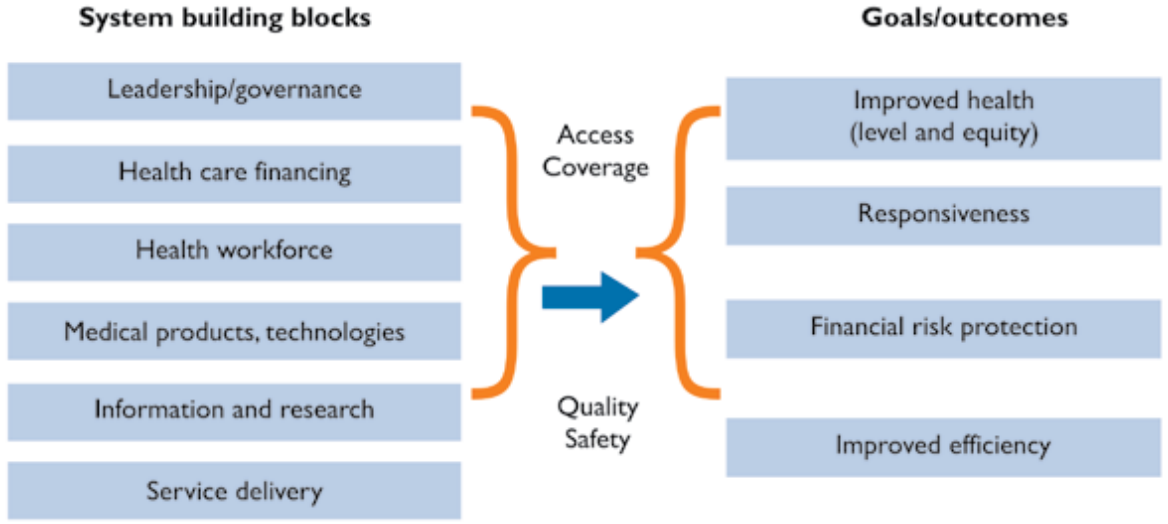

existing health systems structures
general principles of health and governance systems
past experience
GDP per capita
environmental seasonality
ONE SIZE DOES NOT FIT ALL
The county political, economic, and social context
population demands
disease dynamics

The influence of the political and health systems response on COVID-19 incidence in Switzerland, Spain (high-income countries in Europe region) and Iran, Pakistan (Middle-income countries in Eastern Mediterranean Region).

	Population	Income Level	Healthy life expectancy at birth (years)	UHC: Service coverage index	Density of medical Doctors (per 10k population)	Density of nursing and midwifery personnel (per 10k population)	CHE as % of GDP	Compulsory Health Insurance (CHI) as % of CHE
Switzerland	8591	High	72.5	83	43.3	178.9	11.29	44
Spain	46737	High	72.1	83	40.3	60.8	9.13	4
Iran	82914	Upper-middle	66.3	72	15.8	20.8	6.71	35
Pakistan	216565	Lower-middle	56.9	45	11.2	4.8	3.38	1

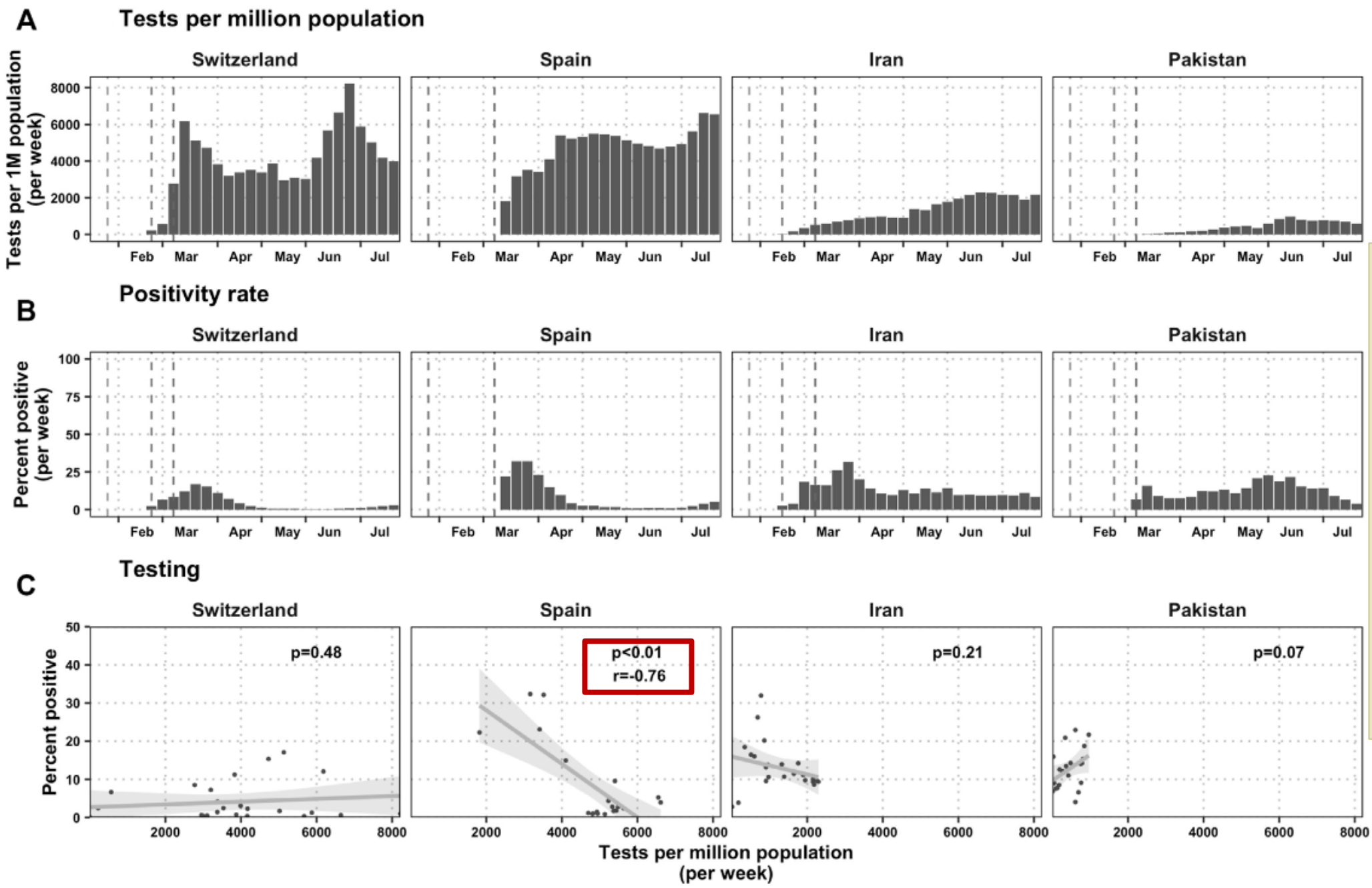
- **During the first two waves:** January through July 2020
- Weekly track of the measures on the basis of 17 indicators
- Qualitative data on the rationale and the political support for these measures

1. First version of the data collection tool in Microsoft Excel
2. Pilot-tested for one week
3. Key informants discussion meeting
4. Finally, 17 indicators were selected



- official government documents
  - (legislation, press releases, policy briefings);
- reports from different agencies in countries;
- major media channels
- incidence and the basic or effective reproductive number (R0) by day,
- weekly number of tests and the percent positivity
- Pearson Chi2 test → to understand significant relationship between the tests per million population and positivity rate

A
Duration of health systems measures
Switzerland
Spain
Iran
Pakistan
Governance
Financing
Human resources
Information systems
Medical technologies
Service delivery
Coordination mechanism created
Emergency financing introduced
Mobilize and repurpose health workforce
Media briefings at regular intervals
Emergency mechanisms for procurement of medicines and health technologies
Contact tracing
Screening on entry
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
B
Duration of preventive measures
Switzerland
Spain
Iran
Pakistan
Quarantine of COVID-19 patients
Quarantine of suspected cases
Announcements of preventive activities
Physical distancing
Restrictions on congregation
Closure of schools and other teaching facilities
Closure of bars, restaurants, sports venues
Lock down
Border closures
C
Cases and effective reproductive number
New cases per million per day
200
150
100
50
0
Effective reproductive number (R_e)
5
4
3
2
1
0



IRAN: only symptomatic individuals were allowed to be tested free of charge, upon the physician's request → low testing intensity in the country

Switzerland: A journey from decentralized to centralized decision-making and back (the Epidemics Act)

23 Feb 2020
- The first confirmed case

25 Feb 2020
- The Federal Council declared the "special situation"
- Banned events with more than 1000 visitors

11 Mar 2020
- A "state of emergency" in Ticino, the canton with the highest disease burden
- Other cantons introduced stricter measures
- The national government announced the closure of schools and banned events of over 100 participants

15 Mar 2020
- A "state of emergency» in four more cantons
- The government escalated the national situation to "extraordinary", → **centralize decision-making**
- Closing all shops, restaurants, entertainment facilities, and international borders

27 April 2020
- Re-opening began

19 Jun 2020
- The situation was de-escalated from the "extraordinary" to "special"
- Returning some autonomy back to the cantons

25 Jun 2020
- The Federal Council fully subsidized all tests for symptomatic persons, persons in close contact with the positive cases, and persons that were in quarantine mandated by cantonal authorities

Jul 2020
- Increase in cases
- The first national mask mandate in public transport
- Call for stricter measures

Switzerland: A journey from decentralized to centralized decision-making and back (the Epidemics Act)

The "extraordinary" situation

- centralize decision-making
  - allowed the government to decide on national matters without consultation of the cantons
  - faster reactive policy-making
  - well received by some cantons
    - support to contain the pandemic
    - the government to take responsibility for the mandated measures and resulting economic consequences
  - criticized by some other cantonal authorities
    - a lack of involvement in the strategic communication
    - little time to prepare before decisions were communicated to the public

cantons had the freedom to make their own policies if there was no national ordinance

Spain: Decentralization and citizens' influence on the response

31 Jan 2020
- The first confirmed case

3 Mar 2020
- Declaration of community transmission in 3 provinces
- Introducing more restrictive measures (e.g. school closures and congregation restrictions)

14 Mar 2020
- Declaration of a nationwide lockdown

April 2020
- The highest number of health professionals infected with COVID-19 worldwide

7 May 2020
- Testing was extended to all suspected cases
- Diagnosis, surveillance, and contact tracing were covered by the public health system

21 Jun 2020
- All pandemic response competencies were fully devolved to the autonomous communities
- The quick reopening resulted in deficient implementation of tracking and tracing systems and inefficiency of the pandemic response

Spain: Decentralization and citizens' influence on the response

surveillance and monitoring mechanisms before detecting the first confirmed case

The national government activated existing coordination mechanisms for an integrated response across ministries and regions

created a communication strategy to raise awareness of the transmission risk and preventive measures

- False perception of low community transmission risk among the public
- Mild compliance with preventive measures

when Spain became one of the epicenters of the health crisis in Europe, the public perception changed

Spain: Decentralization and citizens' influence on the response

Primary Health Care (PHC) was left outside of COVID-19 pandemic planning

strategic focus on hospital care limited the potential of the PHC system

→ deficient contact tracing system in some regions

With the increased demand in hospitals and nursing homes, PHC providers were reallocated to provide treatment to COVID-19 patients

An under-resourced PHC and failing to monitor the quality of care and social services resulted in, almost 20,000 deaths in nursing homes between January and June, 2020

Pakistan: Multi-sectoral response (three weeks after the first case) for a whole of society approach

Jan 2020
- Initiating preventive strategies (i.e. contact tracing of international travelers, designating quarantine houses in airports)

Feb 2020
- Establishing several testing sites across the country under the supervision of Pakistan's National Institute of Health (NIH)

13 Mar 2020
- Creation of the National Coordinating Council (NCC) to manage the epidemic

15 Mar 2020
- Announcing a national lockdown for three weeks

27 Mar 2020
- National Command and Operations Center (NCOC) was established
- "smart lockdown" strategy by enforcing the lockdown, only in places with higher positivity ratio

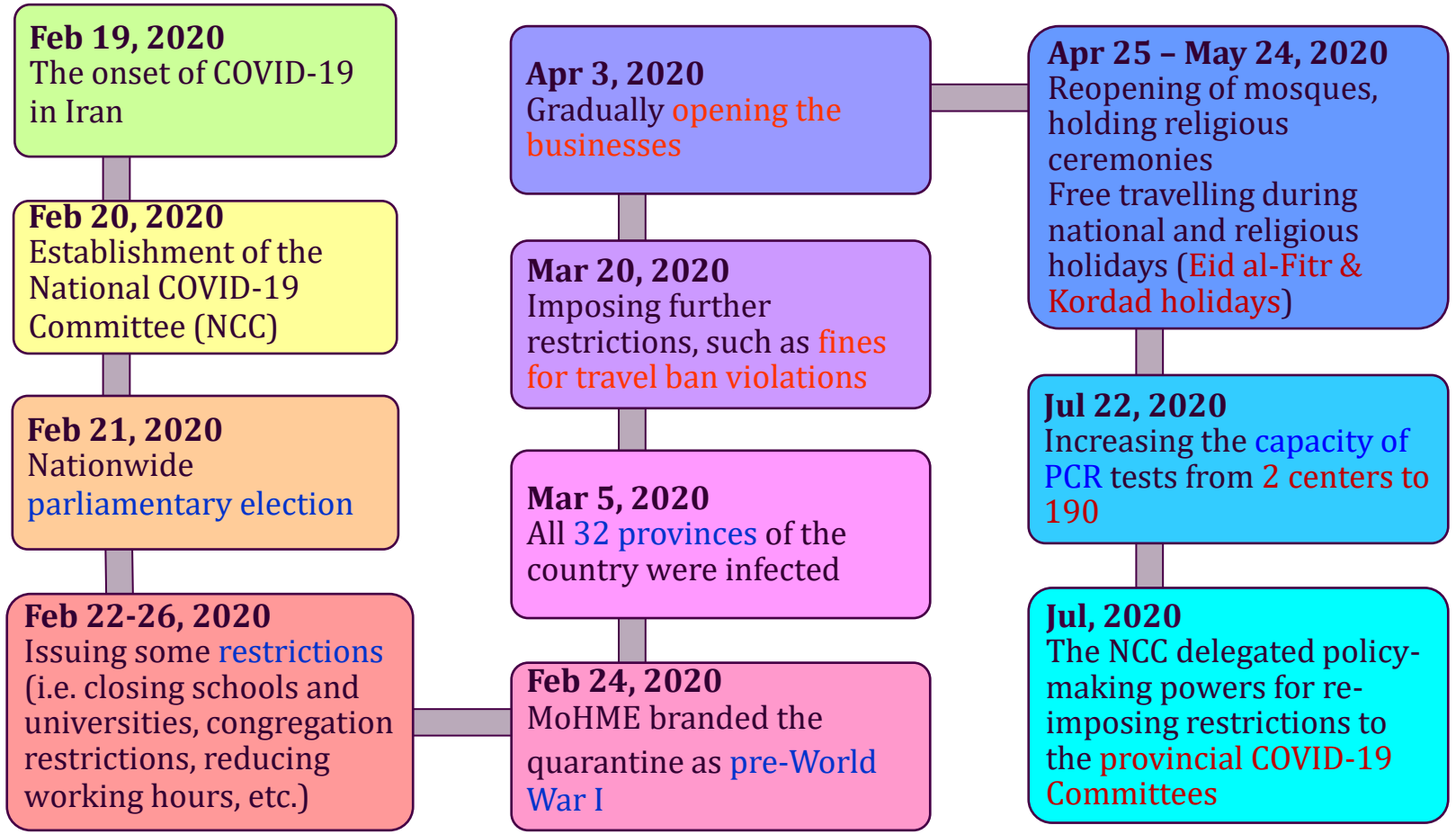
April 2020
- Alleviate the economic burden associated with the pandemic by providing cash disbursements for daily wage earners

April 23 – May 23, 2020
- Re-opening the mosques during the month of Ramadan

19 May 2020
- Easing the measures and opened shopping centers and public transport

April & May 2020
- Addressing the initial shortage of health commodities and medical equipment by the disbursement of more than six billion Pakistani rupees

Iran: Whole of government approach under economic pressure



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PDF [117 KB] Figures

COVID-19 battle during the toughest sanctions against Iran

Amirhossein Takian • Azam Raoofi • Sara Kazempour-Ardebili

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Coronavirus disease 2019 (COVID-19) has spread rapidly throughout the world. WHO declared the outbreak a global pandemic on March 11, 2020.[1] In Iran, the first official announcement of deaths from COVID-19 was made on Feb 19, 2020. As of March 1[illegible]20, 14 991 people have been infected with severe acute respiratory syndrome coronavirus 2, and 853 people have died from COVID-19. 4[illegible] people have recovered.[2]

The strong political support of the Supreme leader and the Supreme Council for National Security

Launching various national campaigns and benefit from the resources of the army and many other national organizations

WOG approach → self-sufficiency of Iran in the face of shortages

Iran: Whole of government approach under economic pressure

Applying unilateral economic sanctions	• **Resulted in** overshadowing the timeliness and effectiveness of mitigation strategies by low economic resilience
Being hesitant about imposing restrictive measures	• **Resulted in** growing the number of COVID-19 cases and its following death
Economic concerns and frequent changes in the lead policy-makers	• **Resulted in** the premature lifting of COVID-19 restrictions
The state of fragile economic and facing with further economic burden	• **Resulted in** 3 million Iranians lost their jobs, and the government's to protect them from economic hardshipfinancial aid was insufficient
Shortage of essential medical supplies	• **Resulted in** the government facilitated import, banned exports and incentivized the domestic industry to increase production capacity

What we need to do?

- ***Efficient Inter-sectoral collaboration*** and community participation
- ***Active surveillance, response, monitoring and evaluation system*** as well as electronic health records to identify high-risk groups and places
- ***Integrated information system*** at all levels of service delivery, as well as in the private sector
- ***Whole-of-government and whole-of-society approaches*** through the principles of good governance for health, in line with the WHO pandemic treaty
- ***Health in all policies*** to support vulnerable groups in society
- ***Strengthening health system resilience*** through strengthening health system building blocks
- ***Strengthening the disease care system and national public health agencies***, including the Center for Disease Control and Prevention (CDC)
- ***Good governance for health*** to increase public trust
- ***A strong primary healthcare, Family physician and referral system*** to reduce hospitals workload, and increase the resilience of the health systems
- ***Transparent and coherent public communication*** to address misinformation and the "infodemic"
- ***Effective communication strategies*** and the need to galvanize context-driven "trust" dynamics between population and the governments.

با تشکر از حسن توجه شما