

CRITICAL ISSUES IN HEALTHCARE POLICY AND POLITICS IN THE GULF COOPERATION COUNCIL STATES



Summary Report

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CRITICAL ISSUES IN HEALTHCARE POLICY AND POLITICS IN THE GCC WORKING GROUP SUMMARY REPORT

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CRITICAL ISSUES IN HEALTHCARE POLICY AND POLITICS IN THE GCC Working Group Summary Report

The situation of the healthcare systems in the Gulf has become multi-tiered, primarily due to the lack of systematic population health need assessments, including short-term health solutions for low-skilled workers. Even though the Gulf region has attained significant social and economic achievements in a short span of time, healthcare policies are still centered more on curative health and not enough emphasis has been placed on protective and preventive measures. There is a lack of medical educational institutions in the Gulf, and the role of the private sector is in need of further study as there is no explanation as to why patients are shifting from public to private healthcare institutions.

In terms of human resources in the health sector, GCC countries seem to struggle with the workforce not being home grown. Moreover, data collection in the Gulf remains sporadic and imprecise. No routine data collection for the WHO exists at the moment, whereby actual data acquired is mere estimates given by hospitals. Also, a more standardized process for recruitment of physicians is necessary because it imposes essential safeguards and helps establish doctors in the region. In the case of the non-physician workforce, the affluent lifestyle enjoyed by many nationals in the Gulf is a deterrent to entering the healthcare sector when a socioeconomic need does not exist. Non-physician positions such as nursing or technical staff are often hired from abroad due to the lack of medical institutions that train individuals in these professions. This raises the question of whether the lack of nationals in the health sector can be attributed to structural limitations of demography or whether the establishment of medical schools can be considered an integral part of the state-building process.

The rapid modernization faced by many Gulf societies has created a myriad of both mental and physical diseases as a result of unhealthy and affluent lifestyles. Additionally, the high percentage of expatriates within most GCC states impact healthcare policies dramatically because data does not always differentiate between national and foreign populations. As a result, diseases such as obesity, often associated with the national population, can seem to be epidemics even though the overall percentage of people diagnosed as obese is comparatively small when the expatriate population is accounted for in the data gathering.

In order to examine some of these pertinent issues, CIRS launched a multi-disciplinary research initiative on the Healthcare Policy and Politics in the Gulf with two working group meetings held in Doha. Participants gathered to discuss their research findings and obtain feedback from their fellow working group members. The topics discussed covered a wide range of healthcare issues, including the historical transformation of health services in the Gulf region to the status of mental health and substance abuse issues that have arisen as a result of changing lifestyle patterns. Discussants argued that the Gulf states' spending on healthcare is below average, by WHO standards, which is reflective in the ratios of physicians to residents and number of beds per population. Moreover, in terms of policy, different health policies exist within the healthcare structure for different patients within society. The research initiative resulted in a book titled *Critical Issues in Healthcare Policy and Politics in the Gulf Cooperation Council States* (Georgetown University Press, 2017).

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Forward

Javaid Sheikh

Although recent scholarship has drawn attention to educational developments in the Gulf Cooperation Council (GCC) states, similar contributions addressing health policy development and implementation in the region are largely lacking. Most recent work on healthcare systems in the Middle East, North Africa, and the Gulf countries consists of reports compiled by consulting firms such as Booz & Company, McKinsey & Company, and Alpen Capital. And though such reports focus on how existing healthcare structures can be transformed into modern healthcare systems, they lack academic rigor and tend to ignore larger, policy-related issues. As for the social scientists, there has been a striking dearth of contributions addressing policies and practices of healthcare systems of different states.

The *Eastern Mediterranean Health Journal*, the flagship health periodical of the World Health Organization, regularly publishes highly technical articles related to very specific case studies of a particular health-related issue in a subset of a population, including groups in Saudi Arabia. However, little has been published that addresses healthcare policy and politics from an academic perspective. A recent series in *The Lancet* titled "Health in the Arab World: A View from Within" (February 2014) provides a fairly comprehensive look at healthcare in the Arab world but does not present much data from the Gulf region. Similarly, *Public Health in the Arab World*—an edited volume published in 2012 by Cambridge University Press—focuses on the non-Gulf Arab countries. The present volume is unique in that it focuses exclusively on the states of the GCC and will contribute much-needed comprehensive analyses of healthcare policy and politics in these states.

This book emerged from two workshops organized by the Center for International and Regional Studies at Georgetown University in Qatar, and it represents a combined effort by the Qatar campuses of Georgetown's School of Foreign Service and Weill Cornell Medicine–Qatar. The collaborative effort involving all the contributors to this volume was enhanced by intensive consultations with other specialist colleagues to improve the focus and depth of the chapters' analyses. The result of this comprehensive collaboration is avolume in which each individual chapter presents a study that is an original work of scholarship making a significant contribution to the field.

This book provides a much-needed perspective on healthcare policy and politics in the GCC states, and contextualizes the efforts and the challenges they have encountered in modernizing their healthcare systems. It should be essential reading for academics, scholars, policymakers, and students interested in learning about the GCC states' current thinking on health policymaking, and the latest information on systemic efforts to transform health systems in the region. The book is also likely to appeal to practicing health professionals and other key actors in the healthcare sector in the GCC. Last but not least, this volume will be of interest to a large number of expatriates who are interested in the underlying themes that are shaping healthcare policy and practice within the region.

Javaid Sheikh, MD, is an internationally renowned medical executive, distinguished clinician-scientist, and widely sought after thought leader and innovator in global academic medicine. As the Dean of the groundbreaking Weill Cornell Medicine–Qatar (WCM-Q), he is the Chief Academic Officer of the first successful international branch campus of a US, research-intensive graduate medical school to grant a medical degree from a US university.

Introduction Ravinder Mamtani and Albert B. Lowenfels

About 50 million people live in the Gulf Cooperation Council (GCC) states of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The GCC's critical geographic location between Europe and Asia has resulted in an increase in both inhabitants and visitors, in what was once a relatively remote region. The rapid, unprecedented demand for healthcare has resulted in the majority of services and professionals being sourced from outside the region. Before the unprecedented growth of the energy industry within the GCC, healthcare was limited to individuals mostly practicing traditional medicine, and to very small hospitals staffed by a handful of health professionals.

Many of the healthcare workers in the GCC have been trained outside the region, emphasizing the need to increase training capacity for the nationals in each country. Beginning at the end of the twentieth century and continuing until the present, the Gulf countries have devoted considerable efforts to boosting the healthcare sector. Although estimates vary greatly between different sources, healthcare-related costs are increasing rapidly, and are projected to reach \$60 billion by 2025. Despite this considerable financial investment, the region still does not match other developed nations in infrastructure and capacity. Rapid changes to the environment and lifestyle of the Gulf region over the course of only a few decades have completely changed the region's health profile.

Until now, healthcare costs for citizens of the GCC have been primarily borne by their respective governments, and this has become a major challenge for the states. Despite the availability of free medical care, many citizens of wealthier states, such as Qatar and the United Arab Emirates, prefer to receive medical treatment abroad instead of relying on the national healthcare system. In most cases, the additional costs for overseas treatment is funded by the state, substantially increasing the burden of healthcare costs. Also, with rising healthcare costs, we see a shift across the region, from the traditional approach of publicly run healthcare to alternate models. Some of the Gulf states have been trying to make the healthcare sector more attractive for the private sector. It is assumed that if the region's governments, by providing infrastructure and a strengthened regulatory environment, create a more enabling environment, then the private sector can play a more active role in managing regional healthcare needs. However, it is unclear whether the governments envision a complete departure from the current state-led healthcare system or if governments prefer a supportive role for the private sector, while still retaining the core responsibility for healthcare provision.

As the overall health of the region's population has improved, new patterns and trends in healthcare have emerged that pose different and yet significant challenges. For example, diseases related to the lifestyle of wealthy countries, such as diabetes, hypertension, and heart disease—which were once rare—are now common. These new challenges require highly trained and expertly skilled healthcare workers; an environment that supports local training, state-of-the-art diagnostic laboratories, research production, and dissemination; and knowledge acquisition to meet emerging healthcare needs.

Managing the healthcare needs of the region also requires accurate, up-to-date statistics. Such information is not always available in the GCC, which limits the ability to allocate resources. Thus, though

the industry is rapidly evolving, critical decision making pertaining to healthcare issues is hampered by the limited availability of information, which underscores the need for additional research in the area. This volume discusses critical, pressing healthcare politics and policy issues in the GCC states. Specifically, it examines the GCC's rapidly changing health profile, the existing conditions of its healthcare systems, and the challenges posed to healthcare management across its six countries.

The seven chapters in this book each covers a different topic, but there are several common overlapping themes. A special problem in the region relates to the large proportion of guest workers or expatriates—amounting to about half of the total population. In some countries, such as Qatar, noncitizens constitute almost 80 percent of the population. Healthcare statistics generally are drawn from the native population, and thus only partially reflect the overall levels of health in the population. Also, the small size of the native population restricts the pool of native healthcare workers, resulting in a sustained demand for foreign healthcare workers to satisfy the needs of the region.

Another problem dealt with in several chapters concerns the relative youth of the population. In many of the world's wealthy countries, birthrates are low and older persons form a majority of the population. The GCC states still have relatively youthful populations, with the result that conditions such as cancer and Alzheimer's disease are uncommon. Preparing for the transition from a younger to an older population will be a challenge facing each of the GCC states.

A major concern for the GCC is its preparation for the management of healthcare when its currently abundant energy resources are depleted. Recognizing this, the region is now focusing on educating the local population to assume the tasks that are now carried out by expatriates. New hospitals, such as the modern Sidra Medical and Research Center in Qatar, are under construction, and the region now has numerous medical schools that aim to train productive healthcare professionals who will remain within the region after completing their training. Nevertheless, it will require strenuous effort for the region to be able to sustain a healthcare system without the help of foreign manpower.

The situation of healthcare in the GCC states continues to evolve. The emergence of lifestyle diseases, mental health conditions, the aging population, healthcare costs, health coverage, and a shortage of healthcare workforce personnel pose considerable challenges. Factors that are likely to shape and drive healthcare delivery in the years ahead include information and medical technology, regional and global partnerships, self care, patient safety efforts, growing health awareness, government and hospital regulations, changing societal values and needs, and the changing face of the expatriate population. An interest in women's health, the adoption of new health technology, and the changing face of healthcare landscape in the GCC states.

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Albert B. Lowenfels, MD, is a professor of surgery and a professor of community and preventive medicine at New York Medical College. He has also served as visiting fellow at the International Agency for Research on Cancer, as a consultant to the US Food and Drug Administration, as a consultant to the International Prevention Research Institute, as a senior investigator for the European Institute of Oncology, and as an external adviser to the grant for genes related to pancreatic cancer funded by the US National Institutes of Health. His research interests, as reflected in more than two hundred publications, include lifestyle diseases, cystic fibrosis, and cancer. He has also contributed to research initiatives on traffic injuries, diabetes, and obesity in Qatar.

1. *A Historical Overview of Healthcare in the Gulf Cooperation Council States* Nabil M. Kronfol

This chapter outlines the historical transformation of the healthcare systems in the six countries of the Gulf Cooperation Council (GCC). This analysis is based on published articles and annual government reports. In addition, personal reminiscences from people who have been instrumental in developing regional healthcare services are included. It should be noted that the history of regional healthcare development, as important as it is, lacks documentation and published literature. It is hoped that this chapter will encourage officials to participate in the documentation and analysis of these historic events.

The chapter describes four phases of healthcare development. The first phase narrates the beginning of health services at the turn of the twentieth century in all six countries. The second phase describes the beginning of the development of healthcare systems to become world-class modern systems by the end of the twentieth century. The third phase develops the current situation. The fourth and final phase is a discussion of the main determinants of the transformation of the healthcare systems and the current challenges faced by the GCC countries. This last phase draws from the perspectives of the chapter's author, who has lived through this period and who was often an actor in the transformation of these systems.

The healthcare sectors of the GCC states have come a long way, and the governments of these countries now run modern, state-of-the-art facilities and systems that concentrate on the principal causes of morbidity and mortality. The populations of the GCC are now less afflicted by communicable diseases, and instead are affected by the diseases of prosperity—such as diabetes and obesity, traffic accidents, and ailments associated with old age and occupational health. Over the years, there has been an increase in initiatives encouraging partnerships with the private sector, and the provision of healthcare has increasingly moved away from paternalistic perceptions to become a human right, acknowledged through government legislation.

The GCC countries have used their oil revenues to invest in the complete reform, modernization, and development of the public-sector welfare system, beginning with the construction of inpatient facilities. In the early years, these were mostly operated by invited international hospital management companies, which was a means of providing high-quality medical services to a rapidly increasing population of nationals and expatriates in a short period. Subsequently, along with a gradual transfer of knowledge and a maturation of the medical market, each country's national health authority took over the management of these institutions.

The GCC states have made great improvements to their healthcare systems, which are continually increasing in quality and quantity. Overall, the GCC countries offer an excellent network of hospitals and medical facilities. The role of each facility is well defined, and quality assurance has become a central focus. The improvements made since the 1970s have catapulted the GCC countries' healthcare services into being some of the best in the world—a remarkable achievement that has been accomplished through perseverance, effective governance, and a commitment to health as an essential human right.

Nabil M. Kronfol is president of the Lebanese Healthcare Management Association and cofounder of the Center for Studies on Aging. He is a retired professor of health policy and management at the American University of Beirut. He is a frequent consultant to the World Health Organization, the World Bank, UNICEF, and the United Nations Development Program on health systems, human resources, quality assurance, and the health of the elderly. His selected publications include "Public Health, the Medical Profession, and State-Building: A Historical Perspective," in *Public Health in the Arab World*, and "Changing Demographics in the MENA Region: The Need for Social Policies to Drive Opportunities," in *Population Dynamics in Muslim Countries*.

2. The Politics of Healthcare in the Gulf Cooperation Council States Dionysis Markakis

Healthcare constitutes a fundamental concern for most contemporary societies across the world. Advances in healthcare provision during the twentieth century have had a radical impact on human life, contributing significant improvements in both quality and duration. This is no less true of the countries in the Gulf region, where healthcare has emerged as a leading issue for both states and societies. In the Gulf states, untaxed citizenries are ruled by unrepresentative governments that nonetheless bestow many of the benefits of the modern state apparatus on their respective populations. Healthcare in particular is one such area, with the Gulf region currently witnessing record levels of investment. This can be seen in contrast to the typical, monodimensional depictions of authoritarian rule, whereby the relationship between ruler and ruled is portrayed predominantly as one of repression and exploitation.

The emergence of modern healthcare infrastructures in the countries of the GCC mirror broader historical trends in the region. The transformation of healthcare in the Gulf region became evident in the twentieth century, with Bahrain and Kuwait, under the guidance of Western religious missionaries, being among the first Gulf countries to open public hospitals. The close interactions with the British Empire also had an impact on the development of healthcare in the region. Since the Gulf states attained independence in the 1960s, the regional healthcare infrastructure has developed rapidly, on a largely unprecedented scale in global terms. This has been made possible through two related factors, which are characteristic of the Gulf states. The first is the centralized, monopolized form of power that is practiced; and the second is the rentier nature of their economies. The expansion of healthcare has not been motivated solely by the largesse of the Gulf region's ruling families. In practice, it has emerged in large part through necessity. It is perhaps ironic that many of the diseases that feature in the contemporary region are the products of the very affluence afforded by its vast hydrocarbon revenues.

The challenges faced by healthcare policy in the GCC derive from broader trends in these states, which are by and large exceptional in political, economic, and social terms. The processes of state formation, the rapid pace of development, the resources upon which these states are being built, and the skewed demographics necessitated all constitute a unique experiment in contemporary state building. The issues that the GCC states need to address are long-term and complex, and range from healthier lifestyle choices, to more balanced urban planning, to the development of sustainable workforces of nationals. Many of these concern broader social, economic, and political issues, which are related to the unique processes of state building under way in the Gulf region, amid rapid growth and modernization. As such, the solutions to these issues remain elusive.

This chapter examines the politics of healthcare in the context of the Gulf, limited here to the GCC member countries. It argues that healthcare constitutes an intrinsic component of the tacit social contract between the Gulf region's ruling families and their respective citizenries. In return for citizens' loyalty, the ruling families provide a wide range of social welfare benefits gratis, including employment, education, and healthcare. First, the chapter analyzes the introduction of modern healthcare in the Gulf region. Second, it examines the contextual parameters, namely, the main issues that have an impact

on healthcare provision, for example, the endemic obesity rates among the region's citizens. Third, it explores the role healthcare assumes in the Gulf region's social contract, deconstructing what the provision of healthcare in the Gulf means in political terms. Fourth and finally, it addresses the main challenges faced by the Gulf states in their attempts to create sustainable healthcare infrastructures.

Dionysis Markakis is a lecturer in international relations at Queen Mary University of London. Previously, he was a research associate of the Center for International and Regional Studies at Georgetown University in Qatar. He received a PhD from the London School of Economics and Political Science. His most recent book is US Democracy Promotion in the Middle East: The Pursuit of Hegemony (Routledge, 2015).

3. Human Resources for Healthcare in the Gulf Cooperation Council States Mohamad Alameddine, Nour Kik, Rami Yassoub, and Yara Mourad

The GCC region is characterized by rapid population growth backed up by strong economies and vibrant markets. However, despite considerable investments in healthcare infrastructure and resources, the GCC states are still facing a plethora of challenges to provide the healthcare services that would ensure the health and wellbeing of their populations, both nationals and expatriates. Perhaps the most significant challenge for the effectiveness, efficiency, and sustainability of healthcare systems across the GCC is the continued availability of an adequate number of well-trained and experienced doctors, nurses, dentists, pharmacists, administrators, and other professionals who constitute human resources for health (HRH).

It is argued that the growth in HRH in the region, especially with regard to the workforce members who are nationals, neither matches the GCC's population growth nor satisfies its increasing needs. This has mandated the reliance on foreign-trained, expatriate HRH. Yet, this excessive reliance on expatriate HRH has meant that the GCC states face the challenge of nationalizing the health workforce, an effort that is realizing varying degrees of success. Optimizing gender distribution and enhancing female participation in the healthcare workforce present other challenges in the GCC states that are of pivotal importance, because these highly influence females' access to healthcare services, considering the religious, cultural, and social fabric of the society.

The overarching aim of this chapter is to investigate and critically scrutinize HRH trends in the GCC states in recent years. The chapter first offers concise country profiles that serve as a base for understanding local trends and specificities and reflects on the outcomes of past HRH reforms and initiatives. The chapter next turns to offering GCC comparisons with respect to HRH, in an attempt to decipher lessons learned and identify experiences and best practices that could be shared among the GCC states. Although the local specificities in the various GCC states are acknowledged, common themes and challenges are identified to guide a concerted regional effort in HRH management and planning.

The chapter is divided into four interrelated and complementary sections. The first section concisely highlights the importance of HRH and overviews the global and regional trends in HRH. The second offers six brief individual HRH country profiles, outlining particular trends and challenges. The third provides overall GCC comparisons across key areas, including the ratio of HRH per population and the distribution of HRH by nationality (nationals vs. expatriates) and gender. The fourth deciphers key lessons learned from past programs and initiatives to offer targeted recommendations that will assist the GCC states in strengthening the sustainability of their national capacities to attend to the capricious burden of disease that has recently expanded to include both the chronic and communicable maladies.

Although it is acknowledged that this chapter does not discuss profound country-specific programs for HRH development, it nevertheless attempts to concisely analyze key facts, figures, and past developments in order to offer evidence-informed recommendations for healthcare stakeholders and decision makers in the GCC member states on where things stand, and, more importantly, where future resources and efforts need to be focused.

Future HRH plans for the GCC region should build on the efforts reported in recent years, with further investments focused on increasing the ratio of HRH personnel who are nationals, while employing more female providers (especially as physicians). Overall, it is essential for policymakers to take a multisectoral, stakeholder-engaging approach that emphasizes policies relying on accurate statistics and data that are contextualized to the GCC states' sociocultural settings. Furthermore, revisiting certain cultural aspects of the region and properly educating nationals and preparing them with the necessary skills and training are crucial for truly realizing the goals and benefits of nationalization.

Mohamad Alameddine is an assistant professor in the Department of Health Management and Policy at the American University of Beirut. Previously, he was as a senior research associate and director of international development at the University of Toronto. His research interests include studying health, human resources, labor force dynamics, recruitment and retention practices, and the quality of work environments. He has published papers in multiple journals on health workforce dynamics, especially on the nursing workforces in Lebanon and Canada. He received a PhD in health management and policy from the University of Toronto, and a master's degree in public health from the American University of Beirut.

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4. Mental Health in the Gulf Cooperation Council States Suhaila Ghuloum and Hassen Al-Amin

Mental health services in the GCC remain largely hospital-based, with negligible community-based facilities and outreach or rehabilitation programs. These statistics vary widely, perhaps related to the validity of the underlying data or to differences in defining particular health facilities or clinics in each of the countries. The emphasis until recently was on building large institutions away from the general hospital facilities, with scarce residential or medium- to long-term rehabilitation or vocational settings. Mental health was not seen as a priority area in the health strategies of any of the GCC states, and consequently funding was minimal.

These services primarily target an adult population, with fewer resources for youth and the elderly. There is a lack of specialized in-patient facilities for adolescents or specialized mother and baby units. Subspecialty services for adults have yet to be developed. The population in the GCC is generally "young." This is partially explained by the high influx of foreign workforce members required to achieve the infrastructure needed for the Qatar National Vision 2030. Single male laborers represent the vast majority of this foreign workforce. In addition, the particular needs of this population have yet to be addressed. The effects of immigration, living conditions, and financial and social stressors should also be taken into consideration when planning the mental health services in each of the GCC states.

The GCC states' clinical care most commonly follows the guidelines established in the United Kingdom, the United States, and Canada. There is a gap in the availability of culture-specific assessment scales and culturally based treatment guidelines. The available screening or measurement tools (e.g., psychometric testing) are mainly translated tools that have not necessarily been validated for the specific treated population. We are actively working now to validate and culturally adapt the most commonly used assessment tools using rigorous scientific research methods.

International best practice suggests that most people with mental illness can be treated in the community. In the GCC, primary care plays a minor role in the care of patients with mental illness, and the system relies heavily on psychiatric hospital outpatient clinics to provide the care needed by all patients, including those with a high prevalence of disorders such as depression and anxiety. The primary care system in Qatar is evolving with regard to mental healthcare. Identified physicians are currently receiving training in the management of mental illness, with a focus on depression and anxiety disorders, given that they are the most prevalent. The mental health plan stipulates establishing a number of community-based mental health facilities adjacent to primary care centers. This ensures more accessible and acceptable facilities for the population, and allows for better communication with the adjacent primary care centers for the benefit of referred patients. The anticipated role for primary care centers includes screening and thus early identification of people with mental health issues. It is well established that early recognition and intervention result in better outcomes and enhance recovery.

The ministers of health of all its member states endorsed the GCC's mental health plan, with a commitment to its implementation. Rapid developments are occurring in each of these countries in clinical, educational, and research areas. The region is investing in its local population to receive highquality undergraduate or postgraduate training, both locally and internationally. This will result in a mental healthcare workforce accustomed to evidence-based practice, conducting research to provide better data and culture-specific clinical care, and committed to educating junior clinicians. The clinical care is shifting away from the paternalistic model to one that engages patients and their families or caregivers in the treatment plan. Efforts to raise public awareness are being implemented, to varying degrees.

The biggest challenge facing implementation of the GCC's mental health plan is the stigma to which mental illness is subjected. Although this stigma is a worldwide issue, it is notably higher in this part of the world, and often presents a major obstacle to help-seeking behaviors. Access to care is more likely to be delayed until there are acute presentations, and noncompliance with the management plan hinders recovery. Stigma is found not only among the general public; policymakers and decision makers are equally affected, and more efforts are needed to improve awareness at every level and thus to ensure that mental health gets the attention it deserves.

The lack of awareness about mental illness and the high stigma associated with it, with very common misconceptions, result in delayed help-seeking behavior. Patients often seek help late in the course of illness, after they have exhausted the traditional healing methods available both locally and regionally. Patients often resort to psychiatric help when their condition deteriorates and affects functioning, or when the patient presents a danger to self or others, thus necessitating admission. Often, families encourage patients to discontinue their treatment once the acuity has subsided, ultimately resulting in further relapses and complicating the management. Like all diseases, mental illness carries a better prognosis with early intervention and treatment.

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5. Substance Abuse in the Gulf Cooperation Council States Samir Al-Adawi

The unique geographical location, economic profile, and demography of the Gulf region provide an interesting background for examining whether the global challenge of mind-altering substance abuse has encroached on this region. In terms of its geography, it is located close to what is termed the Golden Crescent or Drug Belt—countries in Southeast Asia that are notorious for their regular bumper crop production, and use of drugs. Furthermore, being a hub for international trade and transshipment, and with its large influx of contract workers from different parts of the world, the countries that constitute the GCC could be an amalgamation of cultures, trades, and individuals that could act as a background for the proliferation of drug trafficking and its consumption. Economically, the GCC has been acclaimed as the fastest-growing economy, stemming from its revenue from the exploration of oil and natural gas coupled with booming real estate and international trade sectors.

The region's improved standard of living in recent decades has coincided with the baby boom and presented some challenges in safeguarding the welfare of a rapidly acculturating population. The spread of education may have sparked an urban drift, whereby youth may find little sense of belonging in their society. There is a public concern for weakening of family ties in the region as children are left on their own due to increased activity of women outside the house and thereby setting the background for "proximal abandonment," as reported in the psychological literature. The empowerment of women has improved in some of the GCC states; Oman, for example, has opened the door for Omani women to join the workforce. The GCC is characterized by a youth bulge, given that the bulk of its population is under the age of thirty years. The increase in population means that the number of people afflicted with maladjustments is likely to increase. There are indications elsewhere that some vulnerable youth may be led to self-medication with detrimental substances, or be involved in risky behavior that may have an adverse long-term effect on themselves and society. Therefore, concerted efforts are needed to examine the prevailing trend in the use of mind-altering substances in the GCC, and therefore enlightened views toward harm reduction could be contemplated as well as allocating resources for evidence-based interventions as a means of reducing the burden of mind-altering substances.

The Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) provided separate categories for substance abuse and substance dependence. However, the new version of diagnosis nomenclature, DSM-V, has clustered demarcation between "substance abuse" and "substance dependence." The new category is titled "substance use disorders." In this chapter, these terms are used interchangeably. Various compounds have been linked to trigger substance-use disorder, including alcohol, tobacco, caffeine and methylxanthines, cannabis, hallucinogens, inhalants, opioids, sedatives, hypnotics, anxiolytics, psychostimulants, and other or unknown substances. How addiction is perceived and treated has often hinged on the philosophy of the time. Various models of addiction have been previously postulated by what has been termed the moral model, the cultural model, and the habit model, as well as the disease/genetic model. In the GCC, the pendulum appears to swing between the "moral model" and "disease model." This implies that those who have a substance-use disorder may be liable for prosecution or labeled as "sick," and therefore treated accordingly. The GCC states are increasingly

moving toward a medical approach rather than a judicial one in coming to grips with people with addictions. In Oman, for example, the law explicitly states that drug addicts should seek help from a designated medical setting, but those who are "peddling drugs" would be liable for arrests and incarceration. Interestingly, among the general public, addiction was not endorsed as criminal endeavor.

From a global perspective, there is an inclination toward legalization; according to the proponents of legalization, the much-heralded "war on drugs" appears to have failed to live up to its aspirations—that is, to eliminate the menace of drug dependency. In a nutshell, the process of drug "liberalization" requires eliminating or reducing the prohibition of mind-altering drugs. In the GCC, silence prevails among experts and the public alike, whether to continue to pursue "war on drugs" or to join the emerging bandwagon of "drug liberalization." The aim of this chapter is to explore substance abuse in the GCC states. In order to analyze and sufficiently portray the situation in the GCC states, this chapter first explores the extent of drug misuse in the GCC, and, second, surveys the available evidence on drug initiation and management in the GCC. Within such an outline, the factors fostering drug initiation and the available services for management of substance use disorders in the GCC are highlighted. The chapter concludes with what could be extrapolated from the present review as final remarks.

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6. A Chronic Disease Profile of the Gulf Cooperation Council States Cother Hajat

In all the Gulf Cooperation Council (GCC) states, there has been an unprecedented increase in wealth and modernization. This, together with an increasingly aging population, has manifested in a dramatic shift in lifestyle and lifestyle-related chronic diseases. These behavioral factors—which include dietary patterns, physical inactivity, and tobacco smoking—have resulted in rapid increases in the prevalence of the risk factors of chronic disease.

Large, population-based prevalence studies are sparse in the research-poor GCC region. One of the most comprehensive reviews of the health status of the Arab population utilizes data from the GBD (Global Burden of Disease) project, which provides modeled estimates of risk factors, morbidity, and mortality. The report demonstrated that although the disease burden in the whole Arab world decreased from 1990 to 2010, the combined morbidity and mortality burden measured using disability-adjusted lifeyears (known as DALYs) from noncommunicable diseases had increased during this period. Ischaemic heart disease (IHD); mental disorders, such as depression and anxiety; musculoskeletal disorders, including lower back pain and neck pain; diabetes; and cirrhosis formed a large proportion of the disease burden of the Arab world in 2010.

In the review, chronic diseases and road injuries were the leading causes of death in the GCC member states and other high-income countries. Road injuries and major depressive disorder were the top two causes of DALYs, whereas cardiovascular disease (CVD) burden was highest in the age-group 50 to 59 years. With regards to risk factors, dietary factors were the leading risk for death in all high-income countries, with the exception of Saudi Arabia, where high blood pressure ranked higher. IHD and CVD were the first and second causes of death in Kuwait and Saudi Arabia. In 2010, motor vehicle collisions caused the greatest number of deaths in Qatar, the second-highest cause of death in the United Arab Emirates and Oman, and the third-highest in Saudi Arabia, Bahrain, and Kuwait.

Although the data provided by the GBD study are very informative, the abundant data in the region are otherwise scarcely reported to provide a status of health outcomes of the GCC, with the majority of articles describing the Middle East burden of health. Due to the diversity of ancestry, history, environment, culture, and lifestyles—together with the range of low-, low-middle-, middle-, and high-income countries in the Middle East region—the data do not sufficiently describe the state of health for the GCC states, which all fall into the high-income category.

This chapter aims to quantify the chronic disease burden of the GCC states individually and as a region, and to compare this against suitable benchmark countries. There are numerous tools to monitor the performance of healthcare systems, ranging from self-perceived health status, to measured health status, to the quality of healthcare delivery. The Organization for Economic Cooperation and Development's (OECD's) 2011 framework health indicators, "Health at a Glance, 2011," were chosen due to the availability of data for these measures, the close fit of these data with the known and perceived health burdens in the GCC, and the ability to compare the findings with reliable benchmark data from the OECD member countries. This chapter highlights an approach to next steps in identifying and dealing with the chronic disease burden in the GCC. Future research should also focus on the chronic conditions that are causing significant morbidity in the population—including mental health, musculoskeletal, liver, and kidney disorders—in addition to the financial burden of chronic disease.

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7. Lifestyle Diseases in the Gulf Cooperation Council States Albert B. Lowenfels and Ravinder Mamtani

The discovery of oil in the Gulf region early in the twentieth century, in states now part of the Gulf Cooperation Council, was a catalyst for dramatic change in the lifestyles of their inhabitants, and consequently, the factors associated with lifestyle diseases. Formerly, the inhabitants of the region led a nomadic life characterized by simple and limited diets, expending larger amounts of energy than the regional populations of today. The lifestyle of the early twentieth century changed dramatically as motor vehicles replaced traditional, animal-based transportation, and as energy-rich diets became easily available. These changes accelerated further in the twenty-first century, and are closely related to the epidemic of diseases that currently threatens the health and well-being of the region's inhabitants.

It is now known that many diseases—including cardiovascular disease, diabetes, many forms of cancer, and strokes—are strongly related to risk factors that can be classified as "modifiable," or related to lifestyle. These diseases account for approximately half the total global burden of disease. Obesity—a major consequence of negative lifestyle factors—is now more prevalent than malnutrition. And although smoking is on the decline in many countries of the world, it is still a major risk factor in the GCC states.

The GCC states have had a triangular-shaped population pyramid, with high numbers of young people compared with older age groups. In the coming decades, this structure is projected to shift, with the number of older persons—among whom lifestyle diseases are common—increasing relative to the younger population. Consequently, a major effort must be made throughout the region to prevent a potential epidemic of preventable, lifestyle-related illnesses.

How can the impact of lifestyle diseases on the population of the GCC states be measured? The World Health Organization (WHO) reports statistics regarding the frequency of disease, mortality rates, and life expectancy. The Global Burden of Disease study has estimated the disability resulting from various diseases in different countries and different regions of the world. Individual states, through their ministries of health, also collect detailed health demographics.

In this chapter, we provide an overview of the impact of lifestyle risk factors and associated diseases on the six states in the GCC. There are many lifestyle risk factors linked to disease, which can either act independently of one another or, more frequently, are evident concurrently. These factors commonly include obesity, poor diets, tobacco use, alcohol consumption, inadequate exercise, and other, less recognized factors. A risk analysis focusing on lifestyle factors in relation to the health of the adult population was undertaken for Qatar and Kuwait; in both states, the proportion of the population estimated to have a completely healthy lifestyle (i.e., no major risk factors present) was less than 1 percent, whereas the percentage of the population with three or more risk factors (daily smoking, inadequate diet, decreased physical activity, being overweight, or having elevated blood pressure) was about 50 percent for Qatar and 75 percent for Kuwait. It is likely that findings for the other GCC states would be similar.

Lifestyle-related diseases have emerged as a growing threat to the health of the populations of the GCC states. As the population of the GCC region ages, the burden of lifestyle-related diseases will increase dramatically. One estimate suggests that without effective intervention, the annual cost associated with

lifestyle-related diseases in the GCC states will rise to \$68 billion by 2022. This projection, if accurate, will neutralize any therapeutic medical advances, as well as placing a serious financial strain on all the GCC states. The average life expectancy for native inhabitants of the region is 76.7 years—higher than global life expectancy, but lower than the life expectancy for countries with similar income levels. All six GCC states list obesity as the single greatest risk factor for illness, because it increases the risk of both malignant and nonmalignant diseases. Although obesity rates are high for both sexes, they are much higher for females, and perhaps are also related to the ready availability of household help and the reduced opportunity for exercise. Together, all the lifestyle-related diseases account for more than a quarter of all premature mortality in the GCC states—more than the estimated premature mortality caused by motor vehicle injuries.

Effective preventive efforts to combat lifestyle-related diseases will require a different strategy than for infectious diseases; it will require the combined efforts of educators, physicians, nurses, nutritionists, health promotion experts, and public health officials, working together. Furthermore, controlling these diseases will require partnerships between health, food and agriculture, urban planning, trade, foreign affairs, education, and other community development sectors. Special circumstances—such as cultural practices, family values, the local climate, and regional lifestyle factors—must be taken into consideration when developing and implementing population control approaches.

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Conclusion Albert B. Lowenfels, Ravinder Mamtani, and Sohaila Cheema

The GCC states have dedicated enormous resources to improving healthcare and, over the course of only thirty to forty years, their health profiles have changed dramatically. There has been a marked improvement in health indicators—such as life expectancy, childhood mortality rates, and the incidence of communicable diseases—as well as an evolution of effective public healthcare systems and quality healthcare delivery across the GCC states. Several factors will lead to the further improvement of health in the region, including new state-of-the-art tertiary care institutions, the growth of new healthcare education programs, the development of national health strategies tailored to community needs, innovative research initiatives, and increased health awareness. Additional strengthening of individual healthcare systems must continue to focus on disease prevention, reducing mortality and morbidity rates from common diseases, and alleviating pain and suffering among those with chronic conditions.

Although there have been significant improvements within the region, there have also been considerable challenges facing the health of the GCC populations. Some of the most critical challenges include the emergence of lifestyle diseases, such as obesity, diabetes, and heart disease; disability and the impaired quality of life associated with adverse mental health conditions; problems associated with chronic pain; disability associated with an aging population; increasing health costs; and a shortage of healthcare workers. Widespread use of tobacco products, sedentary lifestyle habits, unhealthy diets, and unresolved stress are also of serious concern and will require coordinated action by policymakers, educators, and the healthcare profession.

Factors that are likely to influence and drive future healthcare changes in the GCC states include rapid advances in medical technology, including an increasing reliance on information technology, such as electronic records and telehealth; a focus on self-care; the widespread use of complementary and alternative medicine; an emphasis on patient safety; changing societal values; new government and hospital regulations; global partnerships; interprofessional education; and a multidisciplinary approach to disease management. All these separate pathways present opportunities for improving healthcare, but are also formidable challenges.

The uncertainty associated with the unpredictable nature of infectious diseases, as exhibited recently by influenza and viral epidemics (e.g., Zika and Ebola), will continue to challenge scientists and public health professionals, and may strain (and in some instances drain) health resources worldwide. The recent outbreaks of infectious diseases in the Eastern Mediterranean region are of concern and deserve specific mention—polio and meningitis outbreaks have been reported during the hajj pilgrimage in Saudi Arabia and other countries. Controlling such outbreaks will require a concerted public health action.

Adopting new and proven technological advances to healthcare has the potential to improve therapeutic and diagnostic abilities, but their premature use could be problematic for their accuracy and safety. Because they are often discussed with hyperbole in the popular media, the new health technologies and practices developed in the West are often adopted by other countries without adequate assessment of their evidence base. These technologies promise to deliver improved diagnoses, more effective treatments, and superior patient outcomes. These potential benefits, however, must be weighed against the known challenges of a premature use of technology without full research, an increase in healthcare costs, the appropriateness of the use of technology in a new setting, and the long-term side effects associated with the use of new technology. Thus, it is imperative to exercise caution in integrating new technologies into a healthcare system until they are fully assessed from a risk/benefit perspective.

This book illustrates how, within a few decades, the GCC states have made great progress in closing the gap in healthcare, which formerly separated the countries of the Gulf region from other high-income countries. Previously, these countries may have wisely adopted scientific discoveries and policies developed elsewhere; now, however, we believe that the GCC states are well placed to take the lead both in advancing the scientific understanding of health and disease and in developing evidence-based, globally relevant policies and programs that are culturally appropriate and effective.

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