



The Arab Gulf States
Institute in Washington
Building bridges of understanding



The Effect of Gender Norms on Women's Health in Saudi Arabia

Hala Aldosari



The Arab Gulf States
Institute in Washington
Building bridges of understanding

May 2, 2017

The Effect of Gender Norms on Women's Health in Saudi Arabia

Hala Aldosari

P o l i c y
P a p e r

#1

2017

The Arab Gulf States Institute in Washington (AGSIW), launched in 2015, is an independent, nonprofit institution dedicated to increasing the understanding and appreciation of the social, economic, and political diversity of the Gulf Arab states. Through expert research, analysis, exchanges, and public discussion, the institute seeks to encourage thoughtful debate and inform decision makers shaping U.S. policy regarding this critical geostrategic region.

© 2017 Arab Gulf States Institute in Washington. All rights reserved.

AGSIW does not take institutional positions on public policy issues; the views represented herein are the author's own and do not necessarily reflect the views of AGSIW, its staff, or its board of directors.

No part of this publication may be reproduced or transmitted in any form or by any means without permission in writing from AGSIW. Please direct inquiries to:

Arab Gulf States Institute in Washington
1050 Connecticut Avenue, NW
Suite 1060
Washington, DC 20036

This publication can be downloaded at no cost at www.agsiw.org.

Cover Photo Credit: (AP Photo/Hassan Ammar)

About the Author

Hala Aldosari is a visiting scholar at the Arab Gulf States Institute in Washington. She is interested in the development of women's rights in Saudi Arabia and the Gulf. Aldosari earned her PhD in health services research from Old Dominion University, concentrating on the epidemiology of violence against women and its adverse health outcomes in Saudi Arabia. She earned her MSc in medical science from the University of Surrey, United Kingdom.

Aldosari has worked as a medical scientist, a lecturer, and an administrator in the Saudi health and education sector. She has also worked as a consultant to the Ministry of Health in Saudi Arabia in research and planning of the country's national health policy and services. In 2015, she completed a fellowship at Johns Hopkins University, focusing on social determinants of women's health and violence against women. She currently directs and maintains a women's rights advocacy project online (www.aminah.org) and participates in advocacy efforts and community capacity building aimed at promoting women's rights and empowerment in Saudi Arabia.

Aldosari is also a writer and a blogger, commenting on Saudi political and social affairs. Her writings have been featured in several major media outlets including The Guardian, Foreign Policy, and Al Jazeera English, among many others.

Executive Summary

Gender is one of the most significant determinants of women's health. Gender norms influence not only the power relations of men and women inside the family, but laws, policies, and state institutions, all of which shape health care provision for women. Gendered health systems are characterized by differential treatment of women, both as consumers and providers of health, based on cultural or religious justification. This paper explores the influence of gender norms on women's access to, as well as quality and outcomes of, health care in Saudi Arabia as reflected by health laws, regulations, and selective indicators of women's health.

The paper examines the impact of inadequate health education and preventative health measures on women's reproductive and sexual health care as well as mental health care. It also links the restrictions on women's autonomy and mobility to women's health in access to health care and emergency services, as well as protection from domestic violence and ability to afford publicly unavailable services. It explores the influence of religious norms on women's health-seeking behavior, beliefs, and attitudes, particularly in the use of alternative medicine and female genital mutilation. It further explores the barriers in access caused by regulations promoting gender segregation as well as medical errors involving women. The paper examines the influence of gender norms on women health care providers by exploring women providers' experiences and opportunities for leadership positions in the health system.

Additionally, the paper explores selected indicators of women's mortality and morbidity in Saudi Arabia as a means to study the outcomes of the health system in addressing women's health needs. Specifically, it conducts a review of women's sexual and reproductive health, noncommunicable diseases, mental health, and geriatric care, as well as gender-based violence. The paper reveals important gaps in health education and promotion, sexual and reproductive health care, emergency services, physical and nutritional education and support, timely screening for breast cancer, and mental health service screening and provision. Finally, it presents recommendations for the health policy planners in Saudi Arabia to reduce the negative influence of gender norms on women's health.

Policy Recommendations

- Ensure the implementation of health care provision to women without a male guardian's permission, in accordance with Article 18 of the Executive Regulations of the Health Practitioners Law.
- Provide care for female patients based on the competence of the health care provider rather than the availability of a same-sex provider; Article 3 (a) of the "Manual Guide for Medical Practitioners" should be amended accordingly.
- Offer equal opportunities to women health care providers in health education, training, and professional development to make them competitive for leadership positions.
- Augment women's access to health care by feminizing home care and emergency services and expanding residential care for the elderly in order to counter cultural or legal restrictions on mobility and gender segregation.
- Adopt a life-course approach for planning women's health services in gynecology and obstetrics, preventive medicine, and health education and promotion.
- Conduct relevant research on women to fill the existing knowledge gaps on mental disorders, substance abuse, female genital mutilation, and access for older and disabled women to health care.
- Coordinate programs across various sectors to address women's health concerns.

Introduction

Health is a product of both biological and social determinants, and gender is a well-recognized factor influencing health services' regulations and appropriations.¹ Power relations and gender roles influence women's rate of exposure to certain risk factors and vulnerability to adverse health conditions. Identifying the roles and norms assigned to women in a particular country and their impact on women's health allows for a better understanding of barriers and opportunities in planning for women's health care.

Health systems become gendered when men and women are treated unequally in making choices or accessing resources. A gendered health system affects women's health by treating women as objects rather than agents. Gendered systems share certain characteristics, with varying degrees of severity across different societies. Gendered systems assign lower standards of education, nutrition, or work opportunities for women; consider women as the repository of male honor; limit women's access to political or leadership positions; restrict women's physical mobility; and control women's sexuality or reproductive capacity in order to conform to certain cultural norms.

Women in a gendered system often work in the care economy to ensure the survival, reproduction, and security of others, while receiving lower, insecure pay or no compensation. In addition, social norms and traditions shape health policy planners' and health care providers' perceptions or attitudes toward women, whether as health consumers or health providers, and therefore affect health equity in laws and practice.²

Most of women's health problems develop early in life and manifest at different stages of their lives. Understanding the multifaceted exposure of a woman to biological, behavioral, and social factors from early gestation to childhood, adolescence, young adulthood, and maturity is key to planning a proper prevention and intervention strategy. A life-course approach informs health care planning on the health needs of women, in response to various social and environmental stressors, which differ according to their life stages. Adopting a life-course approach in planning women's health services is key to bridge gaps in services and prevent the development of diseases later in a woman's life. For instance, the genetic predisposition of women for diabetes at an older age can be controlled through influencing healthy behavior in nutrition and lifestyle early in life. Similarly, the provision of health education and preventive care for women at the right life stage potentially reduces the later development of chronic and incurable diseases.³

¹ In the preamble to the constitution of the World Health Organization, as adopted by the International Health Conference, health is defined as the "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." [Constitution of the World Health Organization](#), 45th ed. (New York: World Health Organization, 2006).

² Gita Sen and Pirooska Ostlin, "Gender as a Social Determinant of Health: Evidence, Policies, and Innovations," in *Gender Equality in Health: The Shifting Frontiers of Evidence and Action*, eds. Gita Sen and Pirooska Ostlin (New York: Routledge, 2010), 4-5.

³ J. Stephenson, D. Kuh, D. J. Shawe, D. Lawlor, NA Sattar, J. Rich-Edwards, and M. Hanson, "Why Should We Consider a Life Course Approach to Women's Health Care?" (Royal College of Obstetricians and Gynecologists, Scientific Impact Paper No. 27, August 2011).

This paper investigates the impact of gender norms on women's health care services in Saudi Arabia, by examining the main cultural and legal restrictions that affect women's access to and outcomes of care. In particular, the paper examines the influence of the male guardianship system, gender segregation, religious norms, and the socioeconomic status of women on their health attitudes and the provision of services. In addition, the paper explores the impact of gender norms on women health care providers' choices of specialty and potential to rise to leadership positions. Finally, the paper reviews the main health concerns of women – sexual and reproductive health, noncommunicable diseases, and mental health and addiction services – to highlight the gaps in women's health services in Saudi Arabia. The paper outlines recommendations for the integration and improvement of women's health services through adopting a life-course approach.

Characteristics and Challenges of the Health Care System in Saudi Arabia

Saudi Arabia is home to a growing population of 31 million people, a third of whom are migrant workers. Women represent 49 percent of Saudi citizens and 43 percent of all residents of the kingdom.⁴ Health care coverage is universal and free for all citizens and legal residents according to Articles 31 and 32 of the Basic Law of Governance. The Saudi Ministry of Health (MOH) is responsible for the arrangement, implementation, and regulation of health services.

In 1993, the Saudi Commission for Health Specialties was launched to supervise and regulate accreditation of health practitioners and medical institutions. The Health Practitioners Law regulates licensing procedures and responsibilities.⁵ MOH and other governmental health departments provide 79 percent of health services, while the private health sector provides the remainder.⁶ Basic health services are provided as a first tier of care in a wide network of district-based primary health care clinics. Referrals to secondary care in general hospitals or tertiary care in specialized hospitals can be arranged through primary health care clinics.⁷ Though the administration of MOH is highly centralized, regional directorates have limited autonomy in financing and planning of services as well as in recruitment of professional staff. However, major expenditures must be authorized by the central administration of MOH.

The Health Insurance Act of 1991 (Royal Decree M/10) regulates coverage of private sector employees and their families. MOH is planning to extend the coverage of the employment-based health insurance to all citizens at a later stage, but challenges of weak infrastructure, rising insurance premiums, and insurance fraud may impede implementation.⁸

4 "[Demography Survey 2016](#)," Kingdom of Saudi Arabia, General Authority for Statistics, accessed April 28, 2017.

5 "[Health Professionals Practice Law](#)," Kingdom of Saudi Arabia, Ministry of Health, Ministerial Decree 12/1/39644 of June 10, 2006, accessed October 20, 2016.

6 Mohammed Almalki, G. Fitzgerald, and M. Clark, "[Health Care System in Saudi Arabia: An Overview](#)," *Eastern Mediterranean Health Journal* 17, no. 10 (2011): 784-93.

7 "[Health Law](#)," Kingdom of Saudi Arabia, Royal Decree No. M/11 of June 4, 2002, accessed November 25, 2016.

8 Amir A. Khaliq, "[The Saudi Healthcare System: A View from the Minaret](#)," *World Health & Population* 13, no. 3 (April 2012): 52-64.

In Saudi Arabia, health indicators reveal an overall better performance in comparison to health systems of neighboring countries, but not to countries with similar economies (see Table 1). However, challenges of access, timeliness, and quality of services are well-documented. The 10-year strategy of MOH (2009-19) acknowledged the existence of several health care challenges (Council of Ministers Resolution No. 320 September 7, 2009). Financing was a main challenge for recruitment, training, expansion, and modernization of services. As a percentage of total gross domestic product, Saudi Arabia's health expenditure has remained constant at about 7 percent, much less than other countries with similar health systems and economies, such as France at 11 percent or Germany at 10.6 percent, despite growing health demands.⁹ Weak implementation of operational procedures to monitor and improve performance is another challenge that is currently addressed through accreditation and licensing. The problem of limited funding is compounded by inefficient utilization of resources, which affects the utility and availability of health care in different regions of Saudi Arabia. In addition, limitations in the health information system affect health research, monitoring, and planning of services. The MOH strategy also recognized the weakness in health infrastructure, emergency and referral services, as well as preventive care.¹⁰

However, one of the main challenges of the Saudi health system is its gendered nature. Measures of gender, in the kingdom's health system, have been limited to indicators of reproductive health or mortality and morbidity indicators. Little or no information is available on how gender is often overlooked in planning women's health services. The following section examines the various domains in which gender influences women's health in Saudi Arabia.

Table 1: Selected Indicators of Access and Structure of the Saudi Health Care System

Facility/Service	Number	Access	Percentage of Saudi health professionals
Primary health care centers	2,282 centers	Each serves an average 13,813 people	
Oncology centers	4 centers	In Riyadh, Makkah, Qassim, and eastern regions only	
Diabetes centers	21 centers	In all regions	
Dialysis centers (renal failure treatments)	146 centers	In all regions	
Hospitals	462 MOH hospitals, 43 other governmental hospitals, 145 private hospitals		
MOH maternity and obstetric and gynecologist hospitals	19 hospitals	Taif, Bishah, Jazan, Qurayyat, and Qunfudah regions do not have dedicated maternity or obstetrics and gynecology hospitals	
Beds per 1,000 people	2.2 beds	In all governmental and private health care facilities	
Physicians per 10,000 people	27.5 physicians	Compared to 28.09 physicians per 10,000 people in the United Kingdom	26% (Saudi physicians and dentists)
Dentists per 10,000 people	4.3 dentists	Compared to 53.8 dentists per 10,000 people in the United Kingdom	26% (Saudi physicians and dentists)
Nurses per 10,000 population	54.7 nurses	Compared to 88.01 nurses per 10,000 people in the United Kingdom	38.3%
Pharmacists per 10,000 people	7.5 pharmacists	Compared to 81.2 pharmacists per 10,000 people in the United Kingdom	21%
Allied health professionals per 10,000 people	32.3 professionals	Compared to 112 workers per 10,000 people in the United Kingdom	74.3%

Sources: The Global Health Observatory Data Repository of the World Health Organization; MOH 2015 Annual Statistic Book

⁹ "The Annual Statistics Books of 2015," Kingdom of Saudi Arabia, Ministry of Health, accessed October 20, 2016, Table 2-1, 44.

¹⁰ "The Strategic Plan of 2009-2019: Patient First," Kingdom of Saudi Arabia, Ministry of Health, accessed October 20, 2016.

The Impact of Gender Norms on Women's Health

Saudi Arabia has a unique culture in which gender roles and expectations are based on a specific interpretation of Islamic sharia. These roles are strictly enforced through legal and societal measures. Consequently, women may find health services inaccessible, unavailable, or conditioned on certain cultural justifications or gender norms. Limitations on women's autonomy, such as those imposed by the male guardianship system, women's driving ban, gender segregation, and religious norms, influence access, quality, and outcomes of health care for women in Saudi Arabia.

The Guardianship System and Violence against Women

In Saudi Arabia, women are treated as the wards of their fathers, husbands, or next-of-kin male relatives, including their sons, under an institutionalized male guardianship system.¹¹ Every woman, regardless of age, is required to provide her male guardian's permission for education, employment, travel, marriage, or to obtain a release from prison or a governmental institution. The guardianship system so permeates the local culture that many officials in public or private institutions, including health facilities, require the permission even when not required by law. In 2012, MOH approved a regulation, to enforce the health practitioners law, to allow female patients over 18 years old the right to sign the admissions or release forms from health facilities without a male guardian, except for abortion or sterilization procedures.¹² However, problems in implementation still exist and officials in certain facilities continue to require the signature of male guardians for women to access invasive medical services.

Incidents have been reported in which women's medical care was compromised because of gender segregation norms or the guardianship system. Examples include the death of a female student from a heart attack after university administrators blocked male paramedics' access to an all-women campus¹³ and a university student who delivered her baby in the campus dressing room after the attending female physician refused her transfer without a guardian's permission.¹⁴ In addition, male guardians may impede health care delivery to women patients by demanding women-only health providers. The law is ambiguous, as there is no prohibition against male physicians providing medical care to women, but there are also no punitive actions

¹¹ "Boxed In: Women and Saudi Arabia's Male Guardianship System," *Human Rights Watch*, July 16, 2016.

¹² Ayman Alsaydalani, "The Ministry of Health Approves Regulations of Admission and Release from Hospitals," *Okaz*, March 6, 2012.

¹³ Tom Gardner, "Saudi University Student Dies of Heart Attack after Male Paramedics Were Barred from Women-Only Campus to Treat Her," *Daily Mail*, February 7, 2014.

¹⁴ "A Student Gave Birth inside Al-Imam University after a Female Physician Refused to Transfer Her to a Hospital," *Akhbaar24*, February 24, 2014.

against withholding care because of a guardian's objection. An incident in which a male obstetrician was shot by a husband for attending to his wife during child birth points to the gravity of these norms.¹⁵

To date, no official statistics are available on the consequence on women's health of guardians' refusal to allow care from other than same-sex providers. Of the cases attended by the Saudi Red Crescent, male guardians refused the administration of care in 6 percent, mostly in remote and conservative areas. The spokesperson for the Red Crescent declared that paramedics follow the wishes of guardians if the woman's case is not serious, otherwise they involve the police but only to document the incident. Moreover, paramedics are frequently subjected to assaults by men while tending to women family members. The Royal Advisory Council, or Shura Council, supported a recommendation by a woman member to criminalize those who obstruct the delivery of emergency care for women by paramedics. However, no official regulation regarding the obstruction of emergency services to women, regardless of a guardian's permission, has been instituted.¹⁶

In kinship societies, such as Saudi Arabia, the change in women's perceptions of gender roles with education and exposure increases the tension surrounding the established gender norms and expectations.

Gendered policies are attributed to societal norms, which influence the roles and privileges assigned to men and women.

Gender norms are constantly constructed and reproduced at different levels, including households, communities, and state institutions, or within the health care and legal systems. Violence and coercion are often used to enforce gender norms and therefore place the well-being of girls and women at risk.¹⁷ In kinship societies, such as Saudi Arabia, the change in women's perceptions of gender roles with education and exposure increases the tension surrounding the established gender norms and expectations.

One of the most serious consequences of the vast authority granted to male guardians over women is violence against women and girls. The problem represents a major public health concern, with a wide array of adverse physical and mental health outcomes. Gender norms such as male control of wealth and decision making in the family, isolation of women and family, control of a woman's mobility, and acceptance of the use of violence to resolve conflicts are strongly associated with the risk that such violence will occur. In addition, inadequate resources to support survivors of violence and weak legal measures to deter perpetrators contribute to underreporting and proliferation of domestic violence.¹⁸ Social and legal restrictions on divorce and child custody in Saudi Arabia may also deter women from reporting violence.

¹⁵ Women in the World Staff, "[Male Doctor Helping Deliver Woman's Baby Shot by Jealous Husband in Saudi Arabia](#)," *The New York Times*, May 26, 2016.

¹⁶ Eissa Al-Nayer, "[Saudi Red Crescent: 5% of Men Refuse Our Emergency Services for the Women, and 1% in Riyadh](#)," *Al Iqtisadia*, December 5, 2014.

¹⁷ Helen Keleher, "Gender Norms and Empowerment: 'What Works' to Increase Equity for Women and Girls," in *Gender Equality in Health: The Shifting Frontiers of Evidence and Action*, eds. Gita Sen and Pirooska Ostlin (New York: Routledge, 2010), 161-83.

¹⁸ Lori L. Heise, "[Violence against Women: An Integrated, Ecological Framework](#)," *Violence Against Women* 4, no. 3 (1998): 262-90.

A health care survey of Saudi women revealed that they mostly held traditional gender attitudes. Of those surveyed, 81 percent believed that family problems shouldn't be disclosed to outsiders, 59 percent believed a husband is the head of the family, and 55 percent thought people outside the family shouldn't interfere if a husband mistreats his wife.¹⁹ The use of violence was tolerated by 30 percent of Saudi men, who admitted to using violence against women in their families, mostly for answering back or perceived immoral behavior.²⁰

While several steps were adopted to target violence against women and girls, including legislation to protect them from "abuse," institutional resistance and a lack of awareness remain challenges.²¹ The law itself is not ideal in many areas but is considered a good first step to address the problem. It utilizes a broad and nonspecific definition for violence, without reference to certain forms of violence such as marital rape or sexual assaults in public places. It is also unique in that it includes a definition, for the first time, of the authority of a male guardian, assigning him the role of head of the family. Moreover, the law does not list the roles and responsibilities of other sectors involved in referrals of abuse cases, including

the health sector. Most important, the law leaves the determination of the "severity" of violence, and hence the response needed, to social workers who are instructed to prioritize "maintaining familial ties" over other remedies. Therefore, the response of social workers to domestic violence reports

While several steps were adopted to target violence against women and girls, including legislation to protect them from "abuse," institutional resistance and a lack of awareness remain challenges.

often involves simply asking abusers to sign pledges to refrain from violence. When violence is severe, women and girls are placed in temporary shelters as a last resort, and only when no other family members are available to provide them with shelter. In 2014, social services received 1,088 reports of domestic violence against women, but only 64 of those cases were referred to shelters, while 300 were returned to their families after a mediation process.²²

Therefore, it is not surprising that violence against women and girls is a serious health issue. In a survey of 2000 Saudi women, between 39 and 57.7 percent had experienced domestic violence.²³ In another study of pregnant Saudi women, 18 percent reported experiencing violence, mostly by their husbands.²⁴ Several adverse health outcomes were significantly related

¹⁹ H. M. Eldoseri, K. A. Tufts, Q. Zhang, and J. N. Fish, "[Adverse Health Effects of Spousal Violence among Women Attending Saudi Arabian Primary Health-Care Clinics](#)," *Eastern Mediterranean Health Journal* 20, no. 11 (2014): 717.

²⁰ Nora Almosaed, "Violence against Women: A Cross-Cultural Perspective," *Journal of Muslim Minority Affairs* 24, no. 1 (2004): 67-88.

²¹ "[Law of Protection from Abuse](#)," Kingdom of Saudi Arabia, No. M/52 of September 21, 2013.

²² "[Statistical Book of 2014](#)," Kingdom of Saudi Arabia, Ministry of Labor and Social Development, accessed April 25, 2017.

²³ Emam M. Afifi, Nouriah S. Al-Muhaideb, Nina F. Hadish, Faten I. Ismail, and Fatema M. Al-Qeamy, "Domestic Violence and its Impact on Married Women's Health in Eastern Saudi Arabia," *Saudi Medical Journal* 32, no. 6 (2011): 612-20.

²⁴ Chibber Rachana, Khwaja Suraiya, Hisham Al-Sibai, Abdulaziz Al-Mulhim, and Abdul Hai, "[Prevalence and Complications of Physical Violence during Pregnancy](#)," *European Journal of Obstetrics, Gynecology, and Reproductive Biology* 103, no. 1 (June 10, 2002): 26-29.

to violence, such as poor overall health perception, suicidal thoughts, use of antidepressants, abortion, hemorrhage, preterm labor, increased doctors' visits, or difficulties in conducting everyday activities. Forty-one percent of women tolerated violence without seeking help.²⁵

The health system is an ideal place to intervene to reduce the prevalence of violence, since women will visit facilities to seek medical care for themselves or their children. However, physicians in Saudi Arabia scored poorly in their perceived knowledge of violence against women.²⁶ Training health providers on detection, referral, and management of at-risk women is therefore crucial to implementation of the law and to reduce the adverse health outcomes of violence against women.

Gender Segregation Policy

The prevalent gender norms in Saudi Arabia emphasize a woman's modesty and the protection of her sexuality. Gender segregation, as a mean of protection, is enforced in public spaces to various degrees depending on the context. In general, governmental offices and educational institutions are segregated, with few exceptions, ensuring that a woman is either with an accompanying male relative or segregated in women-only spaces. A driving ban and enforced moral dress code enforce women's isolation and contribute to the wide prevalence of vitamin D deficiency in women – in one study of Saudi women, 81 percent had a vitamin D deficiency. Vitamin D is easily acquired from sunlight exposure and deficiency causes serious bone abnormalities, especially in older women.²⁷

The health system is a difficult place to enforce gender segregation fully. Nevertheless, measures are often adopted such as having a nurse or relative of a female patient present when she is being examined by a male professional. Gender segregation, as well as women's attitudes and dress codes, is monitored in all major health care facilities by dedicated departments of religious affairs to ensure conformity to religious norms. Women-only areas are also provided in all health care facilities, at times limiting access for sick or disabled female patients. A common example is the assignment of top floors of the district-based primary health care clinics – often without disability access – for women-only clinics. Gender segregation in public spaces renders women reliant on men to access health care services and limits their interaction with male health care providers and vice versa.

Provision of emergency services is also complicated due to gender segregation. Paramedics have identified several barriers to efficiently carry out their duties in Saudi Arabia, including harassment by bystanders and family members, lack of trust and confidence, patient

²⁵ A. Tashkandi and F.P. Rasheed, "Wife Abuse: A Hidden Problem: A Study among Saudi Women Attending PHC Centres," *Eastern Mediterranean Health Journal* 15, no. 5 (Sept.-Oct. 2009).

²⁶ S.M. Bahlas and L.A. Damiati, "[Saudi Family-Medicine Residents' Readiness to Manage Intimate Partner Violence: A Needs Assessment Study](#)," *Middle East Journal of Family Medicine* 12, no. 1 (2014):14-19.

²⁷ Khulood Hussein, Hanan Alkadi, Susan Lanham-New, and Mohamad Ardawi, "Prevalence of Vitamin D Deficiency and Low Bone Mineral Density in Healthy Saudi Women," (conference paper, European Congress on Osteoporosis and Osteoarthritis, Volume 24, April 2013).

resistance, and legal issues impeding the response needed.²⁸ In 2015, the Saudi Red Crescent reported 216 child births for women in emergency vehicles and 741 child births for women in homes.²⁹ The problem is underdocumented and many of the involved authorities do not regularly report this information. There has been a female paramedics' department at the Red Crescent since 2008. However, it is exclusively dedicated to providing training and awareness to women-only educational institutions. Women in remote areas without a reliable mode of transportation, and women from conservative families, may be affected by the lack of trained female paramedics or trained female home-based care practitioners. Due to the cultural, legal, and professional barriers to the provision of emergency services and home-based care in the Saudi health system, health care planners should consider providing more culturally sensitive and responsive women's health care.

Women's Socioeconomic Status

In most countries, socioeconomic inequalities affect the health of certain women more than others. Women's health is strongly associated with the level and type of education women acquire, their financial capacity, restrictions on their mobility, and their autonomy in making informed decisions on health. Disparity in social class, position, economic status, education, or political representation restricts women from accessing needed health care even when it is readily available. Certain groups of women, such as those who are incarcerated, displaced, migrant workers, elderly, or affected by genetic disorders or multiple disabilities are at particular disadvantage. As laws and public policies determine when and to whom health care services are provided, and which type of services are provided or withheld, women's health is consequently affected.³⁰

The 2015 gender gap index ranked Saudi Arabia as 134 out of 145 countries, mainly for the differences between men and women in political and economic participation. Inability of women to access economic opportunities affect their poverty rates and increase their dependency on men to access resources, including health care. This is particularly important in Saudi Arabia, where less than 20 percent of women participate in the labor force. In addition, Saudi Arabia has the highest number of legal restrictions on a woman's autonomy or ability to find and sustain employment.³¹ Inadequate legal and political representation of women influence their ability to meaningfully change health policies and utilize services to their advantages. Women who are least educated or poor are at a special health disadvantage, given the impact that poverty and lack of knowledge have on influencing choices and women's capacity to afford publicly unavailable services.

²⁸ Abdullah Foraih Alanazi, "Emergency Medical Services in Saudi Arabia: A Study on the Significance of Paramedics and Their Experiences on Barriers as Inhibitors of Their Efficiency," *International Journal of Applied and Basic Medical Research* 2, no. 1 (Jan.-Jun. 2012): 34.

²⁹ The International Editor, "[Makkah Women are the Highest in Number of Deliveries inside Emergency Vehicles](#)," *Alwasat*, May 5, 2015.

³⁰ World Health Organization, *Women and Health, Today's Evidence, Tomorrow's Agenda* (Geneva: World Health Organization, 2009).

³¹ World Bank Group, *Getting to Equal: Women, Business and the Law* (Washington, DC: The World Bank, 2016).

Women in Saudi Arabia have reported several stressors, related to family caregiving roles, mobility restrictions, economic hardship, and marital conflicts, as significant triggers of their poor health.³² Women of lower socioeconomic status were found to have higher utilization of health services in Saudi Arabia. An unmistakable example is the wide prevalence in women of the metabolic syndrome: a collection of risk factors for cardiovascular disease, obesity, hypertension, and cancer. In the Gulf Arab states, women of lower socioeconomic status were found to have 10-15 percent higher risk for metabolic syndrome than women in developed countries. Similarly, Saudi women with less education and no employment were found to have a higher risk for the metabolic syndrome than women from the middle to higher income class or than those who acquired higher education.³³ The gap in women's access to health education and promotion, economic participation, and public life due to cultural limitations adversely affects women's health in Saudi Arabia.

Table 2: Regional and International Comparison of Selected Health Indicators

Indicator	Saudi Arabia	Regional (year)/International (year)
Life expectancy at birth of males (in years)	73.1	71 (2015) / 69.916 (2015)
Life expectancy at birth of females (in years)	75.7	75 (2015) / 73.833 (2015)
Crude birth rate/1,000 people	20	23 (2015) / 19.348 (2015)
Total fertility rate (per woman)	2.69	2.8 (2015) / 2.448 (2015)
Adolescent fertility rate (births per 1,000 girls age 15-19)	8.0	38 (2015) / 44.03 (2015)
Percent of antenatal care coverage (at least one visit)	98	87 (2012) / 83.783 (2012)
Percent of births attended by skilled health personnel	97	89 (2012) / 70.45 (2012)
Contraceptive prevalence, any method (percent of married women age 15-49)	24	61 (2012) / 63.375 (2012)
Existence of legislation permitting abortion to preserve a woman's physical health	Yes (Conditioned on the husband's approval and results of consultation of a medical committee, according to Article 22 of the Health Practice Law)	
Percent of low birth weight infants	8.4	13 (2010) / 10.54 (2010)
Crude death rate/1,000 people	3.0	5.0 (2015) / 7.73 (2015)
Infant mortality rate/1,000 live births	13	20.0 (2015) / 31.7 (2015)
Under 5 years mortality rate/1,000 live births	15	23.0 (2015) / 42.5 (2015)
Maternal mortality rate/100,000 live births	12	81 (2015) / 216 (2015)

Sources: 2016 UNICEF data for low birth weight; Global Health Observatory Data Repository of the World Health Organization; World Bank Data 2015; and MOH 2015 Annual Statistic Book

³² Asmaa Alyaemni, Sally Theobald, Brian Faragher, Kate Jehan, and Rachel Tolhurst, "Gender Inequities in Health: An Exploratory Qualitative Study of Saudi Women's Perceptions," *Women & Health* 53, no. 7 (2013): 741-59.

³³ Nasser M. Al-Daghri, Khalid M. Alkharfy, Omar S. Al-Attas, Nasiruddin Khan, Hanan A. Alfawaz, Saad A. Alghanim, Mansour A. Al-Yousef, Abdulrahman S. M. Al-Ajlan, and Majed S. Alokail, "[Gender-Dependent Associations between Socioeconomic Status and Metabolic Syndrome: A Cross-Sectional Study in the Adult Saudi Population](#)," *BMC Cardiovascular Disorders* (April 14, 2014): 51.

Religious Norms

The very religious nature of Saudi society may also influence health care administration and women's health beliefs and attitudes. For instance, in a study conducted at a Saudi university, 40 percent of teachers and 50 percent of students, half of whom were women, believed that epilepsy is caused by possession of jinn (evil spirits). Most of the survey participants believed that epilepsy can be treated by faith healers and traditional medicine.³⁴ Saudi women, particularly housewives and older women, were found to commonly use complementary or alternative medicine including herbs, prayers, honey or bee products, hijama (a traditional method of healing by drawing blood by vacuum pressure from small skin incisions), cauterization, or medical message therapy.³⁵ The situation goes beyond neglecting early medical intervention in favor of traditional methods to causing serious bodily harm or death, where women thought to be possessed are severely beaten by religious clerics while attempting exorcism. Such practices rarely find their way into the legal system but reports occasionally appear in the media.³⁶

Women may also internalize the prevalent gender norms, based on religious justifications, which place them at risk. Saudi women were found to experience significantly longer delays than men in receiving needed care for myocardial infarction, or a heart attack. A cohort of Saudi women who experienced myocardial infarction listed five reasons for their delayed care: requiring a male relative's permission to seek medical help; inability to travel to the hospital unless accompanied by a male relative; prioritizing family responsibilities over seeking help; lack of knowledge of symptoms; and belief that a woman shouldn't attract attention. Such beliefs and practices reflect the role of religious norms on gender in influencing access and effective utilization of health services, even in life-threatening situations.³⁷

Female genital mutilation (FGM) – the removal of parts or all of the external female genitalia – is another serious example of the influence of religious norms. FGM is associated with several adverse health outcomes such as infections, tumors, infertility, obstetrics complications, and psychological and sexual problems. Official religious edicts permit the practice as Sunnah – an act that is preferred but not obligatory.³⁸ There is a formal ban on performing FGM in all hospitals, though there is no reference to it as a form of violence in the Law on Protection from Abuse. It is likely that FGM is performed in remote areas by unlicensed traditional practitioners or in private medical practices, taking advantage of the weak implementation of health regulations and religious and social acceptance. The prevalence and regional localization of FGM are anecdotally reported, mostly among migrant populations and in the southern region of Saudi Arabia. For instance, a teaching hospital study in Jeddah found that 41.5 percent of

³⁴ Tahir Obeid, Ahmed Abulaban, Fawzia Al-Ghatani, Abdul Rahman Al-Malki, and Abdulaziz AlGhamdi, "[Possession by 'Jinn' as a Cause of Epilepsy \(Saraa\): A Study from Saudi Arabia](#)," *Seizure* 21 no. 4 (February 2012): 245-49.

³⁵ Ahmed Tawfik Elolemy and Abdullah M.N. AlBedah, "[Public Knowledge, Attitude and Practice of Complementary and Alternative Medicine in Riyadh Region, Saudi Arabia](#)," *Oman Medical Journal* 27, no. 1 (January 2012): 20-26.

³⁶ Nadia Alfawwaz, "[Religious Healing by Beating](#)," *Alwatan*, August 24, 2010.

³⁷ Hassan Alshahrani, Roy McConkey, Julie Wilson, Mostafa Youssef, and Donna Fitzsimons, "[Female Gender Doubles Pre-hospital Delay Times for Patients Experiencing ST Segment Elevation Myocardial Infarction in Saudi Arabia](#)," *European Journal of Cardiovascular Nursing* 13, no. 5 (2014): 399-407.

³⁸ "[Female Genital Mutilation](#)," The Official Website of the Imam Ibn Baz, accessed January 20, 2017.

participants affected by FGM were Saudi women. The study noted a strong association of sexual dysfunction in women with all forms of FGM, including the mild cases.³⁹ The influence of religious norms on health beliefs and attitudes can be effectively targeted through culturally customized health education and promotion programs, designed to inform the public and criminalize harmful cultural practices.

The overlap of health practice with religious opinion often poses an ethical challenge, particularly in decisions on patients' rights. "The Manual Guide for Medical Practitioners" is the only available guide to patients' rights in Saudi Arabia and is heavily influenced by religious norms pertaining to men treating women and vice versa. For instance, Article 3 (a) of the guide gives priority to religious norms rather than competence in offering care: "men should not examine women and vice versa, unless it is not possible to find an alternative technician of the same sex as of the patient to perform the tasks needed." Therefore, it is not surprising that health providers identified the problem of "dealing with the opposite sex" as one of the top 10 medical ethical challenges in Saudi Arabia.⁴⁰

The overlap of health practice with religious opinion often poses an ethical challenge, particularly in decisions on patients' rights.

Medical errors are another area in which religious decisions are influenced by gender. MOH refers cases of medical errors to specialized committees, composed of health professionals and jurists from the Ministry of Justice. The medical professionals are tasked with providing a review of the technical aspects of the error based on the relevant medical standards. Jurists decide accordingly on compensation and/or punishment based on an Islamic opinion that considers the compensation for an error affecting a woman or girl as half of that of an error affecting a man or boy.⁴¹ Women's safety is a major health concern since 70 percent of medical errors documented in Saudi Arabia have occurred during childbirth.⁴² Ensuring patients' safety is often left to the discretion of the involved health practitioners and often hinges on several personal and institutional factors. A survey of physicians in Riyadh revealed that the main incentive to report a medical error was the gravity of the outcome of the error. Additionally, 43 percent of physicians agreed that they would conceal a medical error to avoid punishment.⁴³ These issues indicate the urgent need to review the existing measures of women's safety within the health system and prioritize the provider's competence in offering care over ensuring that the providers are of the same sex as their patients.

³⁹ Sharifa A. Alsibiani and Abdulrahim A. Rouzi, "[Sexual Function in Women with Female Genital Mutilation](#)," *Fertility and Sterility* 93, no. 3 (February 2010): 722-24.

⁴⁰ Abdulaziz F. Alkabba, Ghaith M. A. Hussein, Adnan A. Albar, Ahmad A. Bahnassy, and Mahdi Qadi, "[The Major Medical Ethical Challenges Facing the Public and Healthcare Providers in Saudi Arabia](#)," *Journal of Family & Community Medicine* 19, no. 1 (2012): 1-6.

⁴¹ "[The Religious Edicts of the Supreme Scholars \(Iftaa\)](#)," Edict 8258, accessed October 20, 2016.

⁴² Khalid Alshayea, "[2400 Medical Errors in Saudi Arabia Last Year](#)," *Al-Araby Al-Jadeed*, March 4, 2015.

⁴³ Eiman Alsafi, S.A. Bahroon, H. Tamim, H.H. Al-Jahdali, S. Alzahrani, A. Al Sayyari, "Physicians' Attitudes Toward Reporting Medical Errors-An Observational Study at a General Hospital in Saudi Arabia," *Journal of Patient Safety* 7, no. 3 (September 2011): 144-47.

Women's Health Care Providers

Women as health care providers face similar cultural challenges that may constrain their professional pursuits and limit their equal representation in the health system, especially in leadership positions. While health care services in Saudi Arabia in general face a shortage of national professionals, women are least represented. In 2015, the number of physicians and nurses per 1,000 people in Saudi Arabia was well below other countries of comparable health care systems. Women represented over half of students and graduates of health and medical schools. However, women represented only about one-third of physicians and nurses within the MOH workforce. Women in other governmental health care facilities account for 17 percent of physicians and 11 percent of nurses. The private sector has the lowest proportion of Saudi women physicians at .8 percent and nurses at 3.6 percent (see Table 1).⁴⁴

The National Transformation Program projects an increase of over 50 percent in the number of Saudi health professionals expected to join the health sector by 2020. However, securing funding for training and finding appointments for all the graduates is questionable. There is currently a high rate of unemployment among medical and nursing graduates, compounded by a strong preference by both public and private hospitals to employ better-trained foreign nationals for a lower cost.⁴⁵

The National Transformation Program projects an increase of over 50 percent in the number of Saudi health professionals expected to join the health sector by 2020.

Women physicians face additional career development challenges due to marriage responsibilities and lack of support of their male guardians for travel and continuation of their professional training. In one study, women physicians were found to select primary health care employment and rarely pursue rigorous medical specialties.⁴⁶ Choice of specialty was also limited by a female physician's prospect of working with male patients, the availability of training inside Saudi Arabia, or the ability to study abroad. Female physicians got married early to ensure they had a supportive husband to serve as the required male guardian while pursuing their higher studies. Most women physicians chose specialties that were related to women and children or nonclinical work where no contact with adult males is expected. One female physician explained the expected code of conduct when examining a male patient is to have a chaperone present and keep the door open during the examination. Some women physicians returned from studies abroad without finishing their courses because their accompanying husbands finished their training earlier.

According to the same study, women Saudi physicians in general acknowledged the glass ceiling in their professional development and the difficulty in getting promoted to leadership or administrative positions. They attributed the causes to the prevalent male-dominated culture and Islamic beliefs, which view women as unfit to lead or consider their domestic duties a priority. Women also acknowledged that they are not perceived as equal to their

⁴⁴ "The Annual Statistics Books of 2015," Kingdom of Saudi Arabia, Ministry of Health, accessed October 20, 2016.

⁴⁵ Samia Aleissa, "Four Thousand Dentists Unemployed," *Alwatan*, May 12, 2016.

⁴⁶ Girija Vidyasagar and Davis M. Rea, "Saudi Women Doctors: Gender and Careers within Wahhabic Islam and a 'Westernised' Work Culture," *Women's Studies International Forum* 27, no. 3 (2004): 261-80.

male colleagues, as one doctor stated: "Our system does not give equal status to men and women." One physician expressed awe at the merit-based professional development system abroad, even for a woman: "Being a woman did not hamper very much in the western culture." Female physicians were optimistic about their own futures but held views that social and religious restrictions on women are unlikely to change because they are based on Islamic teachings. Their optimism is therefore based on their own personal success, rather than on their confidence in the social or political system in general. They worried about issues beyond their immediate control, such as having less eligible men receiving promotions and how far gender roles may be affected during economic difficulties.⁴⁷ Ensuring that women are equally represented in leadership positions in the health system would improve the confidence of women health care providers and reduce the stereotypical gender norms on women's competence and assuming of leadership roles.

Women's Health Conditions as Outcomes of Gendered System

While the life span of women exceeds that of men, women often present with lower quality of health than men. Indicators of mortality and morbidity point to the gender difference in behavior, lifestyle, and life experience. These differences demonstrate how women access and utilize preventative or curative health care, and the outcomes of these differences on their health status. For instance, the leading cause of disability in Saudi Arabia was reported in 2010 as highway traffic injuries in men and major depressive disorder in women.⁴⁸ Mortality and morbidity indicators reflect the different effects of environmental exposure, lifestyle choices, and health behavior on men's and women's health. The following overview details women's health status in three main domains – sexual and reproductive health, noncommunicable diseases, and mental health – in an attempt to explore the existing gaps in health care services.

Women's Sexual and Reproductive Health

Maternity and pediatric services are health care priorities in Saudi Arabia. By 2015, there were 11 maternity and children's hospitals in 11 administrative regions as well as two additional specialized obstetrics and gynecological hospitals in Riyadh. However, challenges exist in the quality of maternal and neonatal care services and early preventive care. Sexual and reproductive health of women is largely determined by marriage traditions and their influence on women's health status and fertility rate. Early marriage, polygyny, and frequent pregnancy adversely affect women's physical and mental health.

Early marriage is associated with adverse outcomes of maternal and child health. In Saudi Arabia, marital age has risen with the increase in women's education and entry into the labor force. By 2016, women's level of educational attainment was almost equal that of men yet

⁴⁷ Girija Vidyasagar and Davis M. Rea, "Saudi Women Doctors: Gender and Careers within Wahhabic Islam and a 'Westernised' Work Culture," *Women's Studies International Forum* 27, no. 3 (2004): 261-80.

⁴⁸ Ziad Memish, Sara Jaber, Ali H. Mokdad; Mohammad A. AlMarzoa, Christopher J.L. Murray; Abdullah A. Al Rabeeah, and the Saudi Burden of Disease Collaborators, "[Burden of Disease, Injuries, and Risk Factors in the Kingdom of Saudi Arabia, 1990-2010](#)," *Preventing Chronic Disease* 11, E169 (October 2, 2014).

their economic participation remained at less than half.⁴⁹ The average marital age in Saudi Arabia is 21.8 years for women and 26.3 years for men. Approximately 69 percent of Saudi women over 15 years old are married or have been married.⁵⁰ Child marriage is unregulated and permissible by law according to a religious edict by Saudi Arabia's highest scholar, the grand mufti. In 2014, the Ministry of Justice started including the ages of spouses in marriage contracts as a way to document the practice of child marriage; only 10 cases have been documented since the decision.⁵¹ However, the General Authority of Statistics in Saudi Arabia documented a higher proportion of Saudi women, at 35 percent, who were married before they reached 20 years of age. Saudi women 16-19 years of age were found to be three times more likely to experience premature deliveries compared to older women.⁵²

Polygyny is permitted at up to four wives at a time. However, polygyny may not be officially registered based on the preferences of the couples involved. In 2016, the General Authority of Statistics reported half a million Saudi men, mostly over 45 years old, in a polygynous marriage.⁵³ Though no qualitative study explored the impact of polygyny on Saudi women's health, marital satisfaction, or family functioning, some of these effects were explored in other studies conducted in Arabic countries. First wives were found more likely than monogamous wives to be housewives, of lower socioeconomic status, of older age, and to have a greater number of children. The study documented the long-term manifestations of physical, psychological, and social consequences in first wives. The most frequent symptoms were somatic complaints of unexplained pain, anxiety, and irritability. The researcher coined the term "The First Wife Syndrome" to describe the mental and physical health symptoms, similar to the classical "grieving" symptoms of widows in Western medical literature.⁵⁴

Marriage in Saudi Arabia is traditionally arranged among families of close relations and matching socioeconomic status. Consanguineous marriage (spouses share a common ancestor) represents 56 percent of marriages in Saudi Arabia. The practice is more prevalent in rural areas at 59.9 percent than urban areas at 54.7 percent. Consanguinity occurs mostly among first-degree cousins at 33 percent than all other relations at 22.4 percent.⁵⁵ The high rate of consanguineous marriages, in addition to repeated pregnancies well into older ages of both mothers and fathers, contribute to the high prevalence of hereditary disorders in Saudi Arabia. In response, Dr. Huda Almansour has lobbied successfully within MOH to implement a premarital, mandatory blood screening program to reduce the number of

49 "The Global Gender Gap Report 2015: Saudi Arabia," *World Economic Forum*, accessed October 20, 2016.

50 "Demography Survey 2016," Kingdom of Saudi Arabia, General Authority for Statistics, accessed April 28, 2017.

51 "The Ministry of Justice Confirms Harm of Underage Marriage of Women and the Mufti Replied: It's Permissible," *mbc*, December 21, 2014.

52 Hanan M. Al-Kadri, Azza Madkhali, Mohammed T. Al-Kadi, Hanadi Bakhsh, Nourah N. Alruwaili, and Hani Tamim, "Tertiary Care Availability and Adolescent Pregnancy Characteristics in Saudi Arabia," *International Journal of Women's Health* 6 (April 1, 2014): 359-66.

53 "A Statistic: Half a Million Saudis in Polygynous Marriage," *Almowaten*, October 25, 2016.

54 Lotfy A.M. Al-Sherbiny, "The Case of First Wife in Polygyny," *Arab Psynet ejournal* 8 (October-November-December 2005): 18-26.

55 Mohammad I. El-Mouzan, Abdullah A. Al-Salloum, Abdullah S. Al-Herbish, Mansour M. Qurachi, and Ahmad A. Al-Omar, "Regional Variations in the Prevalence of Consanguinity in Saudi Arabia," *Saudi Medical Journal* 28, no. 12 (2007): 1881-84.

high-risk marriages.⁵⁶ The national premarital screening program was stipulated by law in 2003 and was implemented in 2004. Couples who intend to marry are required to be tested for the most common inherited blood disorders, beta thalassemia and sickle cell diseases, sexually transmitted diseases of hepatitis B and C, and HIV (AIDS).⁵⁷ Couples then receive counselling (if required) prior to signing their marriage contract, but compliance with the results of the screening tests remains voluntary. A six-year analysis of the program revealed that the frequency of detecting couples at risk for passing inherited disorders to their children decreased by about 60 percent between 2004 and 2009. It also showed that the voluntary cancellation of marriages in which there was a risk for inherited disorders increased more than fivefold within the same time frame. The Eastern Province, with the highest prevalence rate of inherited disorders, showed the highest reduction, at 58 percent, of detection of couples at risk for inherited disorders.⁵⁸ The results of the premarital screening program highlight the significance of prevention and health education to counter harmful cultural practices.

Skills-based sex education earlier in a woman's life affects her health-seeking behavior across different life stages. However, many social and cultural issues influence sexual knowledge in young girls. A survey of teenage girls in public and private schools in Riyadh revealed that almost 70 percent had poor sexual health knowledge. Low parental educational levels as well as the absence of a school-based curriculum were the main determinants of such poor knowledge in girls. Girls identified their sources for sexual health knowledge as parents, schools, maids, and the media.⁵⁹ In addition, 32 percent of adult Saudi women were found infected with either single or multiple sexually-transmitted infections and women who presented with ectopic pregnancy had the highest prevalence of such infections at 43 percent. A history of sexually-transmitted infections is a major risk factor for ectopic pregnancy, which in turn increases the likelihood of maternal morbidity and mortality.⁶⁰ Recurrent urinary tract infections in Saudi women were also significantly related to poor genital hygiene practice.⁶¹

A survey of teenage girls in public and private schools in Riyadh revealed that almost 70 percent had poor sexual health knowledge.

Pregnancy-related health literacy was found to be higher among younger, more-educated women than older, less-educated women. Primary health care clinics make an effort to offer educational sessions on signs of labor, baby care, and breast feeding for pregnant

⁵⁶ "A Saudi Researcher with 10 Patients to Her Credit," *Saudi Gazette*, March 5, 2016.

⁵⁷ "Overview of Premarital Screening," Ministry of Health, Kingdom of Saudi Arabia, accessed October 21, 2016.

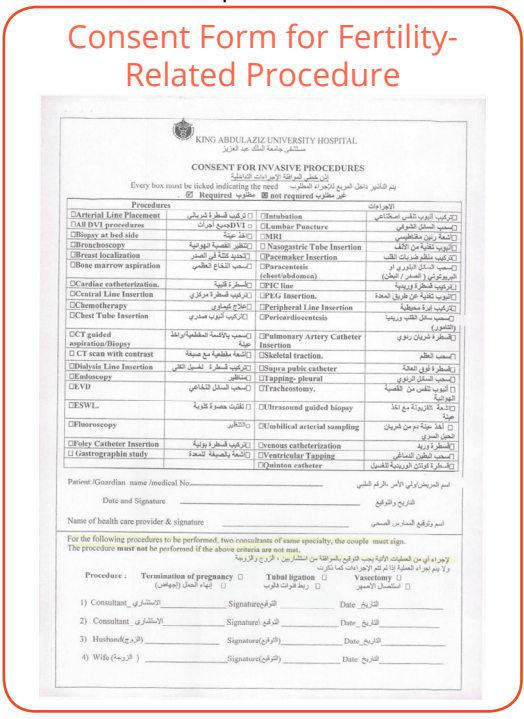
⁵⁸ Ziad Ahmed Memish and Mohammad Y. Saeedi, "Six-Year Outcome of the National Premarital Screening and Genetic Counselling Program for Sickle Cell Disease and B-Thalassemia in Saudi Arabia," *Annals of Saudi Medicine* 31, no. 3 (May-Jun. 2011): 229-35.

⁵⁹ Aljohara Alquaiz, Ambreen Kazi, and Maha Almuneef, "Determinants of Sexual Health Knowledge in Adolescent Girls in Schools of Riyadh-Saudi Arabia: A Cross-Sectional Study," *BMC Women's Health* 13, no. 19 (April 15, 2013).

⁶⁰ Ahmed Ashshi, Sarah Batwa, Seham Kutbi, Faizah Malibary, Mohamed Batwa, and Bassem Refaat, "Prevalence of 7 Sexually Transmitted Organisms by Multiplex Real-Time PCR in Fallopian Tube Specimens Collected from Saudi Women with and without Ectopic Pregnancy," *BMC Infectious Diseases* 15 (December 15, 2015): 569.

⁶¹ Aboul-foutouh Ahmed, Awatif Solyman, and Sanaa Kamal, "Potential Host-Related Risk Factors for Recurrent Urinary Tract Infection in Saudi Women of Childbearing Age," *International Urogynecology Journal* 27, no. 8 (August 2016): 1,245-53.

women. However, more women relied on friends or relatives than on health care providers for information related to pregnancy. Older women with lower education and a higher number of children tended to miss their prenatal visits and hold misconceptions of health information.^{62,63} Only 28 percent of married Saudi women use family planning methods; of women who have finished their higher education 32 percent use such methods, indicating the significance of a woman’s education in improving her reproductive health.⁶⁴ Lack of pregnancy-related information was evident from a study that found 40 percent of women of child-bearing age were affected by iron deficiency anemia, mainly due to poor dietary habits.⁶⁵ Women’s health education on nutrition, particularly in relation to reproductive issues, is limited and can positively improve women’s planning for and outcomes of pregnancy in Saudi Arabia.



Though abortion to protect the safety and well-being of women is allowed in Saudi Arabia, several challenges in laws and practice exist. Initially, an April 28, 1975 royal decree banned the importation, sale, and use of contraceptives based on a World Muslim League ruling that contraceptives were invented by the enemies of Islam. In 1988, the Council of Islamic Jurisprudence in Jeddah, Saudi Arabia, ruled that it is permissible for married couples to use contraceptives for spacing between pregnancy (Resolution No. 39 (1/5)). MOH regulations added the approval of a male guardian as a condition for a woman to obtain a lifesaving abortion, even when not required by the religious edict. Article 22 of the Health Practitioners Law regulates the abortion process. It lists Decision 140 of the religious supreme scholars, which states:

Termination of a pregnancy is not permitted in any stage except for a legitimate reason and in very limited cases. If pregnancy is in its first 40 days of conception and a legitimate benefit or harm can be avoided from its termination, then it can be terminated unless it was for fear of poverty or inability of parents to raise the child. Pregnancy cannot be terminated until a trustworthy medical committee states that the continuation of the pregnancy is dangerous to a mother’s safety and can jeopardize her life. After four months of pregnancy, no abortion is permitted until a group of specialized, trusted physicians determine that continuation of the pregnancy may kill the mother and after exhausting all measures to save the fetus.⁶⁶

62 Mohammed Al-Ateeq, Amal Al-Rusaies, and Aida Al-Dughaiher, "Perceptions and Effects of Antenatal Education," *Saudi Medical Journal* 34, no. 12, (December 2013): 1,287-93.
 63 Aesha Farheen Siddiqui, "Late Antenatal Booking and Its Predictors among Mothers Attending Primary Healthcare Centers in Abha, Saudi Arabia," *RMJ* 41, no. 1 (2016): 72-76.
 64 "Demography Survey 2016," Kingdom of Saudi Arabia, General Authority for Statistics, accessed April 28, 2017.
 65 Aljohara AlQuaiz, Ashry Mohamed, Tawfik Khoja, Abdullah AlSharif, Shaffi Shaikh, Hamad Al Mane, Abdallah Aldiris, Ambreen Kazi, and Durdana Hammad, "Prevalence of Anemia and Associated Factors in Child Bearing Age Women in Riyadh, Saudi Arabia," *Journal of Nutrition and Metabolism* 2013 (August 20, 2013).
 66 "The Health Practitioners Law," Kingdom of Saudia Arabia, No. m/59 of December 6, 2005, accessed October 21, 2016.

The regulations limit women's ability to seek medical help for unwanted or unintended pregnancy to situations in which continuation of the pregnancy is likely to cause mortality or morbidity of the mother, thus forcing women seeking abortion outside these conditions to use alternative methods, which compromise their health. A study of 678 women in obstetrics and gynecologist clinics in Saudi Arabia found that 40 percent were aware of the use of the drug misoprostol for induced abortion and 7.4 percent of women personally used it for that purpose. However, the study revealed that the majority of women responded incorrectly to questions on proper dosages and adverse effects of the drug.⁶⁷ In addition, the inclusion of a husband's permission in MOH regulations for a lifesaving abortion, despite the clear religious edict, is indicative of the influence of the patriarchal norms on the Saudi health system.

The Burden of Noncommunicable Diseases

Investing in early preventive health care markedly reduces mortality and morbidity from noncommunicable diseases that develop later in a woman's life. Control of behavioral and environmental factors, such as unhealthy dietary habits, physical inactivity, obesity, and smoking, significantly reduce the risk for noncommunicable diseases. In Saudi Arabia, ischemic heart diseases, developed mainly due to unhealthy nutritional choices and physical inactivity, were the leading cause of death among both men and women.⁶⁸ However, women were found to be at a higher risk for noncommunicable diseases than men regardless of their socioeconomic status, level of physical activity, diet, or smoking behavior.⁶⁹ The prevalence of risk factors for noncommunicable diseases in women has increased significantly over the last 10 years in the absence of early preventive measures.⁷⁰

The 2015 national health survey of Saudi Arabia revealed that 61 percent of women were obese compared to 57.5 percent of men, and that 33.5 percent of women were severely obese compared to 25 percent of men. The national survey found approximately one million each of men and women affected with diabetes, and half of those affected were over 65 years old. Physical inactivity was prevalent and affected 75.1 percent of women compared to 46 percent of men. The majority of men at 74.3 percent and women at 76.3 percent did not receive periodic health exams, neglecting preventative health care.⁷¹

⁶⁷ Sharifa A. Alsibiani, "[Use of Misoprostol for Self-Induced Medical Abortions among Saudi Women: A Call for Attention](#)," *Gynecologic and Obstetric Investigation* 78, no. 2 (August 2014): 88-93.

⁶⁸ Ziad Memish, Sara Jaber, Ali H. Mokdad, Mohammad A. AlMarzoa, Christopher J.L. Murray, Abdullah A. Al Rabeeah, and the Saudi Burden of Disease Collaborators, "[Burden of Disease, Injuries, and Risk Factors in the Kingdom of Saudi Arabia, 1990-2010](#)," *Preventing Chronic Disease* 11, E169 (October 2, 2014).

⁶⁹ Fatima Garawi, George B. Ploubidis, Karen Devries, Nasser Al-Hamdan, and Ricardo Uauy, "[Do Routinely Measured Risk Factors for Obesity Explain the Sex Gap in Its Prevalence? Observations from Saudi Arabia](#)," *BMC Public Health* 15 (March 17, 2015): 254.

⁷⁰ Aljoharah M. AlQuaiz, Amna R. Siddiqui, Riaz H. Qureshi, Mona A. Fouda, Maha A. AlMuneef, Fawzia A. Habib, and Iqbal M. Turkistani, "[Women Health in Saudi Arabia: A Review of Non-communicable Diseases and Their Risk Factors](#)," *Pakistan Journal of Medical Sciences* 30, no. 2 (2014): 422.

⁷¹ "The National Health Survey of 2015," Kingdom of Saudi Arabia, Ministry of Health, accessed October 20, 2016.

Physical education for girls is a contentious topic, based on religious opinions that stress the protection of the female body and gender segregation.⁷² However, the state has recently responded to international pressure by adopting a few measures, including appointing Princess Reema bint Bandar Al-Saud as the vice president for women's affairs of the General Sports Authority, allowing women to practice sports in private institutions, and sending a few female athletes to the last two Olympics.⁷³

Early screening is important to detect cancer and improve prognoses. However, cancer screening is not routinely offered in Saudi Arabia, particularly to those at risk. Breast cancer is the ninth leading cause of death for women in Saudi Arabia, mainly due to lack of early screening programs and delayed detection. In 2015, breast cancer constituted 31.5 percent of all cancer cases in Saudi Arabia. Saudi women tend to present with breast cancer at an earlier age and with a more advanced stage of the disease than women in other countries. Approximately 70 percent of Saudi women who are diagnosed with breast cancer are between the ages of 30 and 59; the eastern region of Saudi Arabia reports the highest proportion of cases in the country with 26.6 diagnosed per 100,000 women.⁷⁴ Though diagnostics for screening are readily available in main health facilities, 90 percent of Saudi women over the age of 50 were never screened for breast cancer. Women were more likely to have undergone screening if they were educated, living in the Eastern Province, had routine medical examinations in the last two years, or were living with hypertension.⁷⁵ The findings suggest that women in the Eastern Province may be more vulnerable to breast cancer for either genetic or environmental factors. They further reveal the gap in preventive screening measures and the need for training and education for both health care providers and women.

Mental Health Services

Mental illness is associated with a significant burden of morbidity and mortality and is rarely diagnosed for a variety of socioeconomic reasons. Socioeconomic disadvantages, low or subordinate social status, and the burden of caregiving roles place women at higher risk for mental illness than men. In Saudi Arabia, depression is among the leading causes of disability in women, with a wide prevalence rate between 17 and 46 percent. Studies have shown the cost effectiveness of early diagnosis to improve outcomes for patients and reduce the cost of treatment for health systems. In addition, studies have shown that 30-50 percent of affected patients in different countries are not properly diagnosed or their illness is missed by primary health care physicians.⁷⁶ A study on primary health care clinics in Riyadh revealed

⁷² "Steps of the Devils: Denials of Women's and Girls' Rights to Sports in Saudi Arabia," *Human Rights Watch*, February 15, 2012.

⁷³ Sarah Glover, "Saudi Female Athlete Makes History Competing in 100m Sprint," *NBC Bay Area*, August 13, 2016.

⁷⁴ Ibrahi Alghamdi, Issam Hussain, Mohamed Alghamdi, Mohamed El-Sheemy, "The Incidence Rate of Female Breast Cancer in Saudi Arabia: An Observational Descriptive Epidemiological Analysis of Data from Saudi Cancer Registry 2001-2008," *Breast Cancer: Targets and Therapy* 2013, no. 5 (2013): 103-09.

⁷⁵ Charbel El Bcheraoui, Mohammed Basulaiman, Shelley Wilson, Farah Daoud, Marwa Tuffaha, Mohammad AlMazroa, Ziad A. Memish, Mohammed Al Saeedi, Ali H. Mokdad, "Breast Cancer Screening in Saudi Arabia: Free but Almost No Takers," *PloS one* 10, no. 3 (March 16, 2015).

⁷⁶ G.E. Simon, M. VonKorff, "Recognition, Management, and Outcomes of Depression in Primary Care," *Archives of Family Medicine* 4, no. 2 (February 1, 1995): 99-105.

that 49 percent of patients, mostly women and highly educated patients, exhibited depressive symptoms.⁷⁷ A few studies were conducted in Saudi Arabia to find the prevalence of intentional suicide attempts, and showed that 80 percent of individuals affected were women from younger age groups.⁷⁸

Women over 60 years of age are particularly affected by depression because of the combined effect of other health conditions with aging. About 42 percent of Saudi women over 65 years of age who were attending Quran memorization exhibited depressive symptoms, mainly due to absence of a caregiver and low income.⁷⁹ Though the Ministry of Labor and Social Development provides homes for elderly individuals, there are merely 12 homes and they only accept the elderly who do not have any family members to look after them. Those who live with family members are offered special home-based services to support their families in providing the required care. There is a marked shortage in specialized, quality-based elderly homes in Saudi Arabia, a serious challenge with the aging of the population.

Women face unique challenges when it comes to substance use, whether in accessing information, finding resources for treatment, or obtaining family support. Mental health services are limited in Saudi Arabia, with only 4 percent of the total health budget allocated to such services. Psychosocial stressors place women at a significant risk for initiation and relapse of substance use. The unequal allocation of services, based on gender, is mostly evident in mental health and rehabilitation care. In Saudi Arabia, substance use among women is not routinely researched since participants are recruited from male-only addiction treatment facilities. There are three rehabilitation hospitals for substance use in Riyadh, Jeddah, and Dammam under MOH, but none of them offer services for women. Unlike male patients, half of female patients are treated in outpatient mental health facilities rather than specialized hospitals. Nevertheless, women patients were found to be more likely to utilize the services than men.

Mental health services are limited in Saudi Arabia, with only 4 percent of the total health budget allocated to such services.

The prevalence of addiction is not researched or well-documented. Therefore, services provided for women are not necessarily addressing their needs. The few studies that included women from psychiatric clinics found that women represented a small proportion: 2.5 percent of drug abusers and 5.2 percent of heroin users. It is likely that addiction in women is underreported for social and legal concerns. One study found that the most common substances used by women were cannabis, alcohol, heroin, and amphetamine, respectively. The majority of women drug users have a family history of substance use and were never married.⁸⁰ In addition, most women had nicotine addiction (cigarettes or water pipes). Studies

⁷⁷ Waleed Al-Qadhi, Saeed ur Rahman, Mazen S. Ferwana, Imad Addin Abdulmajeed, "[Adult Depression Screening in Saudi Primary Care: Prevalence, Instrument and Cost](#)," *BMC psychiatry* (July 3, 2014): 190.

⁷⁸ Mohsen Rezaeian, "[Suicide among Young Middle Eastern Muslim Females](#)," *Crisis* 31, no. 1 (March 2, 2010): 36-42.

⁷⁹ Areej M. Al-Qahtani, Ammar H. Khamis, Abdulaziz M. Sebiyani, and Abdel W. Awadalla, "[Severity of Depression among Elderly Women Attending Holy Quran Memorization Centers in Saudi Arabia](#)," *Journal of Gerontology & Geriatric Research* 3, no. 4 (2014): 174.

⁸⁰ Medhat Bassiony, "[Substance Use Disorders in Saudi Arabia: Review Article](#)," *Journal of Substance Use* 18, no. 6 (2013): 450-66.

in different regions of Saudi Arabia reported a smoking prevalence among girls and women between 23 and 44 percent; factors like the place of residence, social stressors, and family income were significant determinants.⁸¹

In the absence of quality, informative research, it is difficult to assess the prevalence and determinants of mental illness or substance abuse in Saudi women. The problem is concerning considering the limited scope of mental services and the cultural limitations on women, which may affect their access to and utilization of services.

Conclusion

Women's health services in Saudi Arabia face several challenges of access, comprehensiveness, and quality of care due to the prevalent gender norms. Women in Saudi Arabia face several health challenges, as evident from the prevalence and nature of the diseases and health challenges that affect them, including noncommunicable diseases, breast cancer, violence, mental illness, and addiction. In addition, the quality of women's health care is largely influenced by culturally-shaped gender norms and socioeconomic restrictions. Emergency services, home-based care, elderly care, addiction and mental health services, abortion, quality reproductive health, and preventive screening for cancer and vitamin D deficiency all present gaps in terms of access to, and availability and quality of, care. Health education and promotion is limited in scope, timeliness, and information. Delayed and missed information influence women's health outcomes in many areas including: planning a healthy pregnancy, early detection of breast cancer, and preventing noncommunicable diseases.

The life-course approach provides an ideal framework to respond to the changing health needs of women at various life stages. An early preventive model is needed to reduce the burden of diseases in women. A cross-sector approach is also needed to offer timely health education and promotion in schools and women-only facilities, targeting the conditions of concern. Reviewing the health system is needed to address the influence of gender norms on service provision and quality of care. Several policy recommendations should be considered to improve women's health in Saudi Arabia:

- Ensure health care is provided to women without a male guardian's permission, specifically in the areas of:
 - Admitting, discharging, or providing any invasive medical or health care services for women 18 years or older, in accordance with Article 18 of the Executive Regulations of the Health Practitioners Law;
 - Administering home-based care or emergency care in public spaces or in women-only facilities;
 - Performing a life-saving abortion – Article 22 of the Health Practitioners Law should be modified accordingly.

⁸¹ Amani Awwadh Al-Otaibi, Faisal Bin Ibrahim, Lekhraj Rampal, Siti Aishah Hassan, and Normala Ibrahim. "Prevalence of Tobacco Use and Its Socio-demographic Determinants among Saudi Female School Adolescents in Jeddah," *Malaysian Journal of Medicine and Health Sciences* 11, no. 1 (January 2015): 39-48.

-
- Prioritize the competence of the health care provider rather than the availability of a same-sex provider when considering care for female patients, amending Article 3 (a) of the “Manual Guide for Medical Practitioners” accordingly.
 - Ensure women health care providers are offered equal opportunities in health education, training, and access to leadership positions; the adoption of culturally sensitive measures such as establishing child care facilities in health care institutions and offering online and part-time learning opportunities abroad can be useful approaches.
 - Address challenges to women’s access to health care due to cultural or legal restrictions on mobility and gender segregation through:
 - Providing home-based health care for women, especially midwifery to women with high risk pregnancy, living in remote areas, or without adequate access to transportation;
 - Expanding elderly care services to accommodate increased demand, with a focus on physically and mentally disabled women and women in remote areas;
 - Employing women paramedics to provide emergency care for women in public places and women-only facilities;
 - Ensuring that women-only health care facilities are equipped with disability access.
 - Improve the quality of health care provision to women in the following areas:
 - Gynecology and obstetrics care, with a special focus on providers’ training and institutional quality assurance measures, to reduce the persistently high rate of medical errors occurring during child birth;
 - Primary health care services, to offer preventive screening for breast cancer, vitamin D deficiency, mental health disorders, and violence against women; routine medical exams should be implemented and followed up to target women at risk for noncommunicable diseases;
 - Health education and promotion, by developing departments tasked with generating and disseminating health information on key areas of women’s health, using popular social media and cellphone applications to target women and youth.
 - Conduct relevant research to fill the knowledge gaps in women’s health, in particular:
 - Utilize the annual national health survey as an opportunity to collect gender-specific data on women’s health, with a focus on mental disorders, substance use, and female genital mutilation;
 - Evaluate the provision of health education on sexual and reproductive health, nutrition, substance use, violence, and mental disorders in educational institutions;

- Collaborate with the municipalities and the General Sports Authority in researching strategies to encourage women and youth to participate in physical activities;
- Engage religious preachers in educational workshops on the adverse health outcomes of early or forced marriage, violence against women and female genital mutilation, traditional medicine, early and repeated pregnancy, and other religiously-influenced health practices.

The health system is understandably a reflection of community values and gender norms. However, it is also a significant sector in which to challenge and change harmful practices and beliefs. The success of the premarital screening program in reducing the burden of inherited disorders due to consanguineous marriages is a case in point. In addition, the health sector initiative to establish the National Family Safety Program to document violence against children points to the role of research in guiding policy and mobilizing action. However, reducing morbidity and mortality in women requires integrated, intersectoral efforts to address the documented barriers to proper care. This effort should document women's experiences and engage women in the research to plan the national health strategy, as well as in the development of the health workforce.

