

# **Country Information Note** Pakistan: Healthcare and medical treatment

Version 3.0 July 2024

# Contents

Count	try information	4
Abo	out the country information	4
1.	Structure of the healthcare system	5
	1.1 General overview	5
	1.2 Issues affecting the healthcare system	6
	1.3 Affordability and health insurance	8
	1.4 NGOs (non-governmental organisations)	11
2.	Pharmaceuticals	11
	2.1 Accessibility to pharmaceutical drugs	11
3.	Healthcare infrastructure and staffing	12
	3.1 Hospitals and clinics	12
	3.2 Medical personnel	13
4.	Cancer (oncology)	13
	4.1 Treatment and resources	13
	4.2 Cost of treatment	14
	4.3 Leukaemia	15
	4.4 Other cancers	15
5.	Cardiology (heart conditions)	16
	5.1 Treatment and resources	16
	5.2 Cost of treatment	17
6.	Diabetes	17
7.	Eye treatment (ophthalmology)	18
8.	Gastroenterology, internal medicine and diagnostic imaging	19
9.	Geriatrics	20
	9.1 Physical therapy, assistance, and medical orthopaedic devices	20
10.	HIV/AIDS	21
	10.1 Treatment and resources	21
11.	Liver disease	21
	11.1 Treatment	21
	11.2Hepatitis	22
12.	Mental health	22
	12.1 General psychiatry	22
	12.2 Drug addiction	23
13.	Musculoskeletal conditions	25
14.	Neurological conditions including epilepsy	26

15.	Obstetrics and gynaecology	26
16.	Orthopaedics	27
17.	Paediatrics (children)	28
	17.1 Health strategies and programmes	28
	17.2 Cardiology	29
	17.3 Child psychiatry	30
	17.4 Ear, nose and throat (ENT), and dentistry	30
	17.5 Endocrine system (hormone- secreting glands), thyroid, and diabetes	30
	17.6 Gastroenterology	31
	17.7 Maple Syrup Urine Disease (MSUD)	31
	17.8Neurology and epilepsy	32
	17.9Ophthalmology (eyes)	33
	17.10 Special Educational Needs (SEN) provision and care	33
	17.11 Speech therapy	33
18.	Palliative care	33
	18.1Hospitals	33
19.	Pulmonology (lung diseases)	34
	19.2 Tuberculosis (TB)	35
20.	Renal (kidney) failure and dialysis	35
21.	Sheltered housing, care homes and carer support	36
22.	Speech and occupational therapy	37
Annex	кА	38
Ava	ilability of pharmaceutical drugs list cited by MedCOI	38
Resea	arch methodology	41
Terms	s of Reference	42
Biblio	graphy	44
Sou	Irces cited	44
Sou	rces consulted but not cited	48
Version control and feedback4		
Fee	dback to the Home Office	49

# **Country information**

Section updated: 27 June 2024

# About the country information

This note has been compiled by the Country Policy and Information Team (CPIT), Home Office. It aims to be a comprehensive but not exhaustive survey of healthcare in Pakistan.

It provides country of origin information (COI) for Home Office decision makers handling cases where a person claims that removing them from the UK would be a breach of Articles 3 and/or 8 of the European Convention on Human Rights (ECHR) because of an ongoing health condition. It contains publicly available or disclosable COI which has been gathered, collated and analysed in line with the <u>research</u> methodology. The note's structure and content follow the <u>terms of reference</u>.

For general guidance on considering claims based on a breach of Article 3 and/or 8 of the ECHR because of an ongoing health condition, see the instruction on <u>Human</u> rights claims on medical grounds.

This note makes extensive use of information compiled by Project MedCOI, which was set up and operated by the Belgium and Netherlands immigration authorities until 31 December 2020. Thereafter MedCOI was run by the European Union Agency for Asylum (EUAA), formerly known as the European Asylum Support Office (EASO).

MedCOI's information gathering and quality assurance processes remain unchanged from when the UK Home Office had access prior to December 2020.

The EUAA explains how the project currently operates:

'EUAA MedCOI relies on a worldwide network of medical experts that provides upto-date medical information in countries of origin. Based on this information and combined with desk research, the EUAA produces responses to individual requests from EU+ countries and maintains a portal with a specific database where the information can be found. The portal also allows for the continuous exchange of information between countries, and between countries and the EUAA. The database is only accessible to trained personnel in EUAA and the EU+ countries' relevant administrations ... The high quality and medical accuracy of the information is guaranteed by specifically trained medical advisors and research experts who also provide guidance to the users of the portal.

'EUAA MedCOI is continuously subject to internal and external quality assurance activities such as validations, audits, and peer reviews.'<sup>1</sup>

The UK Home Office's access to MedCOI ended on 31 December 2020. However, copies of all MedCOI documents referred to in this note have been retained and are available on request.

Back to Contents

<sup>&</sup>lt;sup>1</sup> EUAA, <u>Country of Origin Information</u> (Medical country of origin information (MedCOI)), no date

# 1. Structure of the healthcare system

### 1.1 General overview

1.1.1 The World Health Organization Regional Office for the Eastern Mediterranean (WHO EMRO) noted in an undated report entitled 'Health system strengthening', that '... the World Health Report 2010 defines universal health coverage as providing all people with access to needed health services that is of sufficient quality to be effective, while ensuring that the use of these services does not expose the user to financial hardship.

'Pakistan is committed to achieving the health-related targets of the Sustainable Development Goals [SDGs] with the aim of attaining universal health coverage. The SDGs are the practical expression of concern for health equity and the right to health; and contribute to sustainable development and poverty reduction. Embarking on a national vision towards universal coverage will entail reforms in the health system, as well as addressing social and environmental determinants of health.'<sup>2</sup>

- 1.1.2 The same source added that 'The national health vision 2025 provides a way forward to confront the challenges that face the national health system such as inequities, rising exposure to health risks, increasing health care costs and low levels of access to quality. The overall goal is to achieve better health, universal health coverage and equitable health financing policies.'<sup>3</sup>
- 1.1.3 The US Government's International Trade Association (ITA) healthcare resource guide noted that:

'In Pakistan, public and private health care systems run in parallel. The public sector, led by the Ministry of Health until recently, has deferred to the provinces for issuance of healthcare to the general population. The administrative and fiscal space of provinces has increased manifold with simultaneous increases in their responsibilities, however they remain deficient in health workforce and facilities, relative to the size of the population...

'The public sector health services are provided at federal, provincial, and district levels through a well-established network of rural health centers, basic health units (BHU), and allied medical professionals. The health profile of Pakistan is characterized by high population growth. The rising population pressure on state health institutions has allowed the private sector to bridge the gap of rising demand and limited public health facilities...

<sup>'</sup>Public health activities have persistently increased in terms of physical infrastructure and workforce, including increased numbers of doctors, dentists, and nurses.<sup>'4</sup>

- 1.1.4 See also <u>Healthcare infrastructure and staffing</u>.
- 1.1.5 The ITA healthcare resource guide added that, 'The private sector plays a vital role in the delivery of healthcare services in Pakistan. Most private hospitals, clinics, and health related facilities are in urban areas and are well-

<sup>&</sup>lt;sup>2</sup> WHO EMRO, <u>Health system strengthening</u>, no date

<sup>&</sup>lt;sup>3</sup> WHO EMRO, <u>Health system strengthening</u>, no date

<sup>&</sup>lt;sup>4</sup> ITA, <u>Healthcare Technologies Resource Guide, Pakistan</u>, no date

equipped with modern diagnostic facilities. These private healthcare options are in greater demand than healthcare available through the public sector.<sup>3</sup>

1.1.6 WHO EMRO noted that 'The private health sector constitutes a diverse group of doctors, nurses, pharmacists, traditional healers, drug vendors, as well as laboratory technicians, shopkeepers and unqualified practitioners.

"...The rising population pressure on state health institutions has allowed the private sector to bridge the gap of rising demand and limited public health facilities. A number of private hospitals, clinics and diagnostic labs has [sic] increased considerably and is contributing health services in the country. [The] Majority of private sector hospitals has [sic] sole proprietorship or a partnership model of organization. Stand-alone clinics across Pakistan are the major providers of out-patient care [and the] majority of these clinics falls in the sole proprietorship category."

1.1.7 Bertelsmann Stiftung's Transformation Index (BTI), a think-tank, which assesses the transformation toward democracy and a market economy as well as the quality of governance in 137 countries, noted in its BTI 2024 Country Report for Pakistan, covering the period 1 February 2021 to 31 January 2023, published on 19 March 2024, that 'Pakistan has several welfare programs aimed at establishing a basic universal social safety net for its citizens. Government-operated … hospitals offer highly subsidized … health care to the entire population.'<sup>7</sup> The same source added:

'In 2019, the PTI government launched the Sehat Sahulat Programme in the KP [Khyber Pakhtunkhwa] province, providing universal health insurance to citizens eligible for use in both public and private hospitals. Coverage was extended to Punjab in 2021, and the program was providing health insurance to an estimated 38 million households across the country by the end of that year. While questions remain about its sustainability – currently accounting for 30% of the government's expenditure on health care – it remains the most significant reform to health care provision in decades.'<sup>8</sup>

**Back to Contents** 

# 1.2 Issues affecting the healthcare system

- 1.2.1 WHO EMRO noted that 'Despite an elaborate and extensive health infrastructure, the health care delivery suffer from some key issues like the high population growth, uneven distribution of health professionals, deficient workforce, insufficient funding and limited access to quality health care services.'9
- 1.2.2 The Government of Pakistan's Ministry of Finance section on health and nutrition in a report published on 8 June 2023 noted that the:

'Health and nutrition profile of Pakistan, as evident from country's performance on various health and nutrition indicators, presents a moderate picture. Key health indicators regarding child and maternal life expectancy,

<sup>&</sup>lt;sup>5</sup> ITA, <u>Healthcare Technologies Resource Guide, Pakistan</u>, no date

<sup>&</sup>lt;sup>6</sup> WHO EMRO, <u>Pakistan Health Service Delivery</u>, no date

<sup>&</sup>lt;sup>7</sup> Bertelsmann Stiftung, <u>BTI Country Report 2024</u> (page 25), 19 March 2024

<sup>&</sup>lt;sup>8</sup> Bertelsmann Stiftung, <u>BTI Country Report 2024</u> (page 25), 19 March 2024

<sup>&</sup>lt;sup>9</sup> WHO EMRO, Pakistan Health Service Delivery, no date

i.e., neo-natal mortality rate, infant mortality rate, and under-5 mortality rate showed improvement in year 2021 as compared to the previous year. Maternal mortality rate also showed progress with 154 deaths per 100,000 births in 2020 as compared to 179 in the previous year. However, other indicators such as incidence of tuberculosis and measles immunization decelerated, while life expectancy at birth and HIV prevalence remained same.<sup>10</sup>

1.2.3 The BTI 2024 report noted that:

"... the provision of effective public services in Pakistan is hamstrung by serious capacity constraints. According to the Pakistan Economic Survey for 2022, spending on health care amounted to 3% of GDP in 2020/2021...The inadequacy of public welfare services has led to the emergence of a large private sector in health care... Historically, the budgetary adjustments required by lenders to manage Pakistan's fiscal constraints have led to cuts to social services."

1.2.4 The BTI 2024 report further noted:

'While significant challenges persist regarding the provision of welfare in Pakistan, there are areas where progress has been observed. The Benazir Income Support Programme (BISP), initiated in 2008, is an unconditional cash transfer scheme for poverty reduction that primarily targets women. Renamed the Ehsaas program by the PTI government, the BISP was expanded in response to the COVID-19 pandemic, with coverage extended to an estimated 15 million families in 2021. During this period, the Ehsaas Taleemi Wazaif Programme was also introduced, offering stipends ranging from PKR 1,500 to PKR 4,000 [£1 = 353.87 Pakistan Rupees (PKR)<sup>12</sup>] to students every quarter. Currently, the program benefits over three million children.'<sup>13</sup>

1.2.5 An article published on 10 June 2023 entitled 'Healthcare in Pakistan: Navigating Challenges and Building a Brighter Future', authored by medical practitioners Muhammad Q, Eiman H, Fazal F, Ibrahim I and Gondal M F of the Holy Family Hospital in Rawalpindi, noted that:

"...the healthcare system in Pakistan is facing several challenges. There is a massive shortage of hospitals, doctors, nurses, and paramedical staff... Two parallel systems exist in the healthcare system of Pakistan. One consists of public hospitals, and the other consists of private hospitals. The former is short even of basic healthcare facilities, and the latter is too costly for the people of Pakistan to afford. Solutions to the stumbling and compromised healthcare system of Pakistan are adequate financial support and infrastructure development...

'The system is plagued with numerous flaws, ranging from inadequate infrastructure to inequitable distribution of healthcare facilities. The lack of adequate healthcare infrastructure is one of Pakistan's biggest challenges. There is an extreme shortage of healthcare facilities, including hospitals,

<sup>&</sup>lt;sup>10</sup> Ministry of Finance, <u>Health and nutrition</u> (Page 187), 8 June 2023

<sup>&</sup>lt;sup>11</sup> Bertelsmann Stiftung, <u>BTI Country Report 2024</u> (page 25), 19 March 2024

<sup>&</sup>lt;sup>12</sup> Xe, <u>Currency converte</u>r, 24 May 2024

<sup>&</sup>lt;sup>13</sup> Bertelsmann Stiftung, <u>BTI Country Report 2024</u> (page 25), 19 March 2024

clinics, and diagnostic centers.

'The chronic underfunding of the health sector is a massive reason for the lack of infrastructure, burdened by corruption, an unstable political system, and inequitable distribution of resources... Currently, healthcare expenditure accounts for a mere 0.4% of Pakistan's GDP, well below the WHO- [World Health Organisation] recommended GDP to be spent on healthcare, i.e., 6% for low-income countries. Moreover, this funding is inequitably distributed to Pakistan's urban and developed cities. Hence, access to healthcare services is marked by stark disparities, with the rural population and low-income communities lacking basic healthcare facilities...

'In conclusion, Pakistan's healthcare system faces significant challenges in providing effective and equitable healthcare to its citizens. However, these challenges can be overcome by strategic planning, the allocation of adequate funds, and the government's keen interest in improving the current conditions. The political unrest in Pakistan has played a huge role as the rapid change in management and leadership interrupts the continuity of policies.'<sup>14</sup>

Back to Contents Section updated: 4 June 2024

# 1.3 Affordability and health insurance

1.3.1 According to a MedCOI response in January 2020:

'Public hospitals provide free healthcare to all citizens; however, around 78% of the population pay for healthcare. The issue is according to one article the quality of care. A study conducted on the effects of health insurance on child labour reduction concurs, concluding that due to the poor quality, 75% of the population instead pay for expensive private care. Less than 2% of the households have formal insurance. The result is that health issues are a "significant economic risk" for low-income Pakistanis. According to the International Labour Organization, tertiary hospitals may offer free consultation and bed for some patients, but surgical and medical supplies as well as medication must be paid for by the patients.

"[T]he social security system in Pakistan takes the form of charity (Zakat entitlement), though it requires quite lengthy procedures to subscribe to. Additionally, [...] coverage may be full if the treatment is available at public facility but not in private facilities.<sup>15</sup>

#### 1.3.2 Information from June 2018 found on MedCOI described Zakat, noting:

'Under the system of Zakat, funds for the medical treatment of the "deserving", or mustahiq, patients, are distributed to various health facilities. Only a Muslim citizen of Pakistan living below the poverty line is eligible to receive Zakat. A person can apply to the regional Zakat department and if successful, will receive a Istehqaq certificate from the Local Zakat Committee in the area. The certificate is then submitted to the Health Welfare Committee at the hospital in question. The financial assistance can

<sup>&</sup>lt;sup>14</sup> Muhammad Q and others, <u>Healthcare in Pakistan: Navigating...</u>, 10 June 2023

<sup>&</sup>lt;sup>15</sup> MedCOI, 29 January 2020

be used for "medicines, tests, artificial limbs, medical treatment including operation, bed in general ward and free transportation of the patient", according to the Zakat and Ushr Department in Punjab province. Zakat funds are available at various hospitals.<sup>16</sup>

1.3.3 The MedCOI response, dated 29 January 2020 noted that:

'A project in Khyber Pakhtunkhwa and parts of Islamabad is providing "health cards to ensure government-subsidised health insurance for poor and needy families". The Sehat Sahulat Program provides "significant financial coverage, and province-wide accessibility to secondary and tertiary treatment facilities." This model was built to align with Pakistan's commitment to introduce Universal Health Coverage (UHC) by 2030. Achieving UHC is part of Pakistan's sustainable development goals.

'In 2017 a health insurance scheme was launched in the federal capital, FATA and Punjab to provide coverage for families earning USD 2 per day or less. Families included in the scheme are entitled to an annual treatment costing USD 2,600 [£1 = 1.27 US Dollars<sup>17</sup>]. This can include conditions and treatments like cancer, traumas caused by accidents, burns, complications from diabetes, infections and bypass surgeries.'<sup>18</sup>

- 1.3.4 The ITA noted in its healthcare resource guide that '... expansion in the Government of Pakistan's universal health coverage insurance program has led to an increase in the demand of healthcare infrastructure as [the] government is providing health care services to general public both from public and private hospitals.'<sup>19</sup>
- 1.3.5 The January 2020 MedCOI response noted: 'Microloans can sometimes include mandatory accident and health insurance. Microinsurance is a growing field in Pakistan and there are currently 150 hospitals all over Pakistan listed for health microinsurance clients. There are also examples of community health insurance, but due to the costs of administrating policies in remote areas, the premiums are unaffordable.'<sup>20</sup>
- 1.3.6 An article published in The Lancet in October 2022 entitled 'Sehat sahulat: A social health justice policy leaving no one behind' authored by Forman R, Ambreen F, Shah S S A, Mossialos E and Nasir K, noted that:

'The World Health Organization states "[Universal Health Coverage] UHC means that all individuals and communities receive the health services they need without suffering financial hardship."... Pakistan has joined the likes of emerging markets in pushing towards UHC. While simultaneously grappling with the COVID-19 pandemic, since late 2020 the Khyber Pakhtunkhwa (KPK) province expanded coverage for all its 30.5 million residents for inpatient care up to 1 million Rs per family each year in over 500 public and private hospitals across the country through its Sehat Sahulat program (SSP). The program, first adopted by the provincial government in 2016 to cover its population living below the poverty line, aims to transform

<sup>&</sup>lt;sup>16</sup> MedCOI, 21 June 2018

<sup>&</sup>lt;sup>17</sup> Xe, <u>Currency converte</u>r, 24 May 2024

<sup>&</sup>lt;sup>18</sup> MedCOI, 29 January 2020

<sup>&</sup>lt;sup>19</sup> ITA, <u>Healthcare Technologies Resource Guide, Pakistan</u>, no date

<sup>&</sup>lt;sup>20</sup> MedCOI, 29 January 2020

healthcare in the country and progress towards UHC in recognition of the importance of health and wellbeing to the functioning of society.

'Former Pakistani Prime Minister Imran Khan commended the SSP, and efforts to expand healthcare coverage for residents of other provinces, including Islamabad Capital Territory (ICT), Punjab, Azad Jammu Kashmir (AJK), Gilgit Baltistan (GB), and Tharparkar-Sidh are underway. Endeavours to improve coverage in the region are laudable and have helped segments of the population in getting the care they need: as of 1 July 2022, 35,866,110 families had been enrolled under the program and 4,392,734 hospital visits had been covered since the SSP's establishment.'<sup>21</sup>

### 1.3.7 The same source added:

'Recognizing the need for increased access to healthcare, in recent years there has been a significant drive at the national and provisional levels to develop and fully subsidize programs aimed at mobilizing government financial resources to purchase medical services from both public and private providers, targeting the poor and those with catastrophic conditions. The SSP is a mechanism to do just that. The SSP can be viewed as an insurance mechanism, but the idea is that premium contributions are fully subsidized by the government. It covers secondary care and tertiary care for conditions including accidents and emergencies, diabetes, kidney diseases (including dialysis and transplant), Hepatitis B and C, cancers, and heart and vascular diseases. Additionally, it provides financial assistance under certain conditions for wage loss during treatment, transportation costs, maternity allowances, and funeral expenses in case of death during hospital admission...

'Financing for the program is raised through provincial taxes, and these funds cover State Life Insurance Corporation (SLIC) premiums for all eligible families in the province. Because of these arrangements, the federal government does not have as much administrative control over the program. In theory, SSP beneficiaries should receive covered inpatient services completely free of charge, without any out-of-pocket payments. For families which do not make any claims in a year, 90% of their premiums are reimbursed to the national exchequer.

'Coverage extends to services in both public and private facilities. This recognizes that over 70% of people in Pakistan seek healthcare from private hospitals – both in rural and urban settings. A small minority of private hospitals refuse to accept patients for certain conditions or services under the SSP because of their high overhead costs; in these circumstances, this gives public hospitals the opportunity to absorb these patients and bring in additional funds.'<sup>22</sup>

#### 1.3.8 Academics Quratulain Muhammad and others noted that:

'Pakistan, as a member of the United Nations (UN), strives to achieve the set benchmarks in healthcare by the year 2030. Many programs have been made functional to provide vertical and horizontal integration in healthcare. Currently around 17 in number, these programs have changed the

<sup>&</sup>lt;sup>21</sup> Forman R and others, <u>Sehat sahulat: A social health justice policy...</u>, 18 October 2022

<sup>&</sup>lt;sup>22</sup> Forman R and others, <u>Sehat sahulat: A social health justice policy...</u>, 18 October 2022

architecture of healthcare in Pakistan to face much brighter horizons. Pakistan boasts as one of the pioneer countries in advocating public-private partnerships (PPPs), which has yielded fruitful outcomes. The National Tuberculosis (TB) Control Program, Child and Maternal Health Awareness Program, and Expanded Program on Immunization are working examples. The most revered initiative of the Lady Health Worker (LHW) Program ensures door-to-door delivery of PHC and has been a significant milestone in progressing toward the attainment of the utmost level of healthcare...

'The government has consistently put in the effort to reduce healthcare costs in hospitals and has established autonomous bodies to relegate a more efficient and effective healthcare delivery. Pakistan has a long way ahead toward the development of an effective, accessible, and affordable healthcare system.'<sup>23</sup>

Back to Contents

#### 1.4 NGOs (non-governmental organisations)

- 1.4.1 MedCOI noted in a 2020 response that, 'Charity hospitals may also provide free healthcare to the underprivileged. One chain of hospitals described in an article by Andalou Agency is said to provide care from the primary level up to cardiac surgery and treatment for paediatric cancer.'<sup>24</sup>
- 1.4.2 The BTI 2024 report noted that 'Civil society in Pakistan is characterized by the existence of a diverse array of organizations and interest groups. These include NGOs; professional associations of lawyers, [and] doctors... representing commercial interests...<sup>25</sup>
- 1.4.3 NGO Source, a non-profit organisation and project of the Council of Foundations philanthropic network<sup>26</sup> noted on 8 September 2022 that '...Pakistani NGOs [are] working in relief, development, and healthcare...<sup>27</sup>
- 1.4.4 Also see the NGO Base<sup>28</sup>, a website providing a directory of charities around the world, for a list of <u>organisations working for health in Pakistan<sup>29</sup></u>.

**Back to Contents** 

#### 2. Pharmaceuticals

#### 2.1 Accessibility to pharmaceutical drugs

2.1.1 WHO EMRO stated in an undated report entitled 'Essential medicines and technology', that:

'The establishment of the Drug Regulatory Authority under the Ministry of National Health Services, Regulations and Coordination has been a major step towards the effective regulation and ensuring the implementation of related policies and guidelines. Pharmaceuticals of Pakistan is rapidly growing with 550 plus companies and over 60 000 registered brands. Of

<sup>&</sup>lt;sup>23</sup> Muhammad Q and others, <u>Healthcare in Pakistan: Navigating...</u>, 10 June 2023

<sup>&</sup>lt;sup>24</sup> MedCOI, 29 January 2020

<sup>&</sup>lt;sup>25</sup> Bertelsmann Stiftung, <u>BTI Country Report 2024</u> (page 30), 19 March 2024

<sup>&</sup>lt;sup>26</sup> NGO Source, <u>Who we are</u>, no date

<sup>&</sup>lt;sup>27</sup> NGO Source, Supporting Pakistani NGOs, 8 September 2022

<sup>&</sup>lt;sup>28</sup> NGO Base, <u>Home</u>, no date

<sup>&</sup>lt;sup>29</sup> NGO Base, NGOs and Charities working for Health in Pakistan, no date

major concern is the quality and regulation of the products based on WHO Good Manufacturing Practices and ICH [International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use<sup>30</sup>] guidelines, in addition to opting to quality-based selection of medicines instead of the current price-based procurement.<sup>31</sup>

- 2.1.2 According to Muhammad Q and others 'Most life-saving medications are too expensive for people to afford...'<sup>32</sup>
- 2.1.3 An article on medicine costs published November 2023, by Abdullah S, Saleem Z and Godman B, stated that: 'Despite price controls, the affordability of medicines in Pakistan remains a problem for most due to appreciable prescribing and dispensing of originator brands (OBs) and highpriced branded generics (BGs) as well as substantial price variations in OBs, BGs and low-priced generics (LPGs). Such issues are exacerbated by concerns with the ability of the Drug Regulatory Authority of Pakistan (DRAP) to properly regulate prices.'<sup>33</sup>
- 2.1.4 D. Watson chemist had numerous <u>stores</u> in Islamabad and Rawalpindi, and one in Chakwal. Its website allows users to <u>search</u> for available medicines.
- 2.1.5 The Aga Khan University Hospital had a network of <u>hospital pharmacies</u> in Karachi and Hyderabad in Sindh, and <u>outreach pharmacies</u> across Pakistan.

Back to Contents

# 3. Healthcare infrastructure and staffing

#### 3.1 Hospitals and clinics

- 3.1.1 The Pakistan Economic Survey 2021-22 noted that during 2021 '... national health infrastructure comprised of 1,276 hospitals, 5,558 BHUs [Basic Health Units], 736 RHCs [Rural Health Centres], 5,802 Dispensaries, 780 Maternity & Child Health Centers and 416 TB centers, while the total availability of beds in these health facilities have been estimated at 146,053.'<sup>34</sup>
- 3.1.2 The ITA report noted that the 'National health infrastructure is comprised of 1282 hospitals, 5472 BHUs, 752 Maternity & Child Health Centers, and 412 TB centers.'<sup>35</sup>
- 3.1.3 According to an April 2023 article by Samad Z of the Department of Medicine and Institute for Global Health and Development, Aga Khan University, Karachi, and Hanif B of the Tabba Heart Institute, Karachi, 'Pakistan has 8.9 hospital beds for every 10 000 citizens and a tiered public health care delivery network with 6142 primary care centers and 1282 hospitals.'<sup>36</sup>
- 3.1.4 WHO EMRO noted in an undated report entitled 'Health service delivery', that 'A number of private hospitals, clinics and diagnostic labs has increased

<sup>33</sup> Abdullah S and others, <u>Coping with increasing medicine costs...</u>, 9 November 2023

<sup>&</sup>lt;sup>30</sup> ICH, Official Website, no date

<sup>&</sup>lt;sup>31</sup> WHO EMRO, Essential medicines and technology, no date

<sup>&</sup>lt;sup>32</sup> Muhammad Q and others, <u>Healthcare in Pakistan: Navigating...</u>, 10 June 2023

<sup>&</sup>lt;sup>34</sup> Ministry of Finance, Pakistan Economic Survey 2021-22 (page 204), 2022

<sup>&</sup>lt;sup>35</sup> ITA, <u>Healthcare Technologies Resource Guide, Pakistan</u>, no date

<sup>&</sup>lt;sup>36</sup> Samad Z and Hanif B, Cardiovascular Diseases in Pakistan..., 24 April 2023

considerably and is contributing health services in the country.'37

3.1.5 For a list of public (state-run) and private hospitals, see the healthcare platform <u>Marham</u><sup>38</sup> and the property portal <u>Graana</u><sup>39</sup>. The UK Foreign and Commonwealth Office (FCO) also provided a list of <u>hospitals with English-speaking doctors</u> as of 6 September 2023<sup>40</sup>. Also see a '<u>List of Hospitals and Clinics Businesses in Pakistan</u>'<sup>41</sup>.

Back to Contents

#### 3.2 Medical personnel

- 3.2.1 The Pakistan Economic Survey 2022-23 stated that the number of registered medical personnel as of 2022 included 282,383 doctors, 127,855 nurses, 46,110 midwives, 24,022 Lady Health workers, and 33,156 dentists<sup>42</sup>.
- 3.2.2 The BTI 2024 report noted that ...and there was one doctor available for every 877 Pakistanis in 2022. In 2019/2020, there were only 0.98 doctors per 1,000 people....<sup>'43</sup>. According to Samad Z and Hanif B, 'Pakistan has a doctor-to-population ratio of 1.09 per 1000 and a nurse/community health care workers/midwife–to-population ratio of 0.59 per 1000.'<sup>44</sup>
- 3.2.3 According to academics Quratulain Muhammad others, 'Approximately 100,000 LHWs [lady health workers] are presently working in five provinces of Pakistan. Each LHW covers a population of 1,000...<sup>45</sup>.
- 3.2.4 See a list of physicians in all departments in <u>Tibi Sahulat's doctor directory</u> and online medical help platform for Pakistan<sup>46</sup>.

Back to Contents

# 4. Cancer (oncology)

# 4.1 Treatment and resources

4.1.1 Regarding cancer treatment, the Pakistan Economic Survey 2022-23 stated:

'Almost 80 percent of cancer burden in Pakistan is catered by Pakistan Atomic Energy Commission's (PAEC) cancer hospitals with annual treatment of approximately 40,000 cancer patients. The PAEC, with its well-equipped nuclear medicine, radiotherapy and radiology departments and workforce of 278 doctors, has contributed hugely through application of nuclear technology in the health sector. To cater the patients of remote areas, the PAEC, on average, establishes one cancer hospital every three years. Recently, GINOR [Gilgit Institute of Nuclear Medicine, Oncology and Radiotherapy] facility has been completed and now 19 AECHs [Atomic Energy Cancer Hospitals] are fully functioning, while one is under construction at Muzaffarabad, Azad Jammu & Kashmir (AJ&K). Also, 03

<sup>42</sup> Ministry of Finance, Pakistan Economic Survey 2022-23 (page 188), 2023

<sup>&</sup>lt;sup>37</sup> WHO EMRO, <u>Health service delivery</u>, no date

<sup>&</sup>lt;sup>38</sup> Marham, <u>Home, All Hospitals in Pakistan</u>, no date

<sup>&</sup>lt;sup>39</sup> Graana, <u>Top Private and Government Hospitals in Islamabad</u>, 27 May 2022

<sup>&</sup>lt;sup>40</sup> FCDO, List of English- speaking doctors in Pakistan, updated 6 September 2023

<sup>&</sup>lt;sup>41</sup> UrduPoint Network, List of Hospitals and Clinics Businesses in Pakistan, no date

<sup>&</sup>lt;sup>43</sup> Bertelsmann Stiftung, <u>BTI Country Report 2024</u> (page 25), 19 March 2024

<sup>&</sup>lt;sup>44</sup> Samad Z and Hanif B, <u>Cardiovascular Diseases in Pakistan...</u>, 24 April 2023

<sup>&</sup>lt;sup>45</sup> Muhammad Q and others, <u>Healthcare in Pakistan: Navigating...</u>, 10 June 2023

<sup>&</sup>lt;sup>46</sup> Tibi Sahulat, <u>Doctor's directory</u>, no date

Mobile Breast Care Clinics (MBCC) conduct fortnightly visits and arrange camps in remote areas providing free screening facilities to poor and needy patients.<sup>47</sup>

4.1.2 In a research article published on 16 March 2023 entitled 'Recently Top Trending Cancers in a Tertiary Cancer Hospital in Pakistan', authors Faisal Ali and others of the Nuclear Institute of Medicine and Radiotherapy, Jamshoro, Pakistan, noted that:

'The NIMRA cancer hospital is one of the oldest cancer hospital facilities built by the Pakistan Atomic Energy Commission (PAEC); it is located in the South Sindh province of Pakistan. Its scope includes diagnosis, nuclear medicine, and treatment of malignant cancers with chemotherapy and radiotherapy. NIMRA cancer hospital is capable of performing research studies to examine current cancer trends and forecast future trends. The center is equipped with a well-established cancer registry software hospital management information system (HMIS) for data analysis.<sup>'48</sup>

- 4.1.3 According to a MedCOI response in 2019, cancer treatment was available at Shaukat Khanum Memorial Cancer Hospital and Research Centre, Peshawar, and Shifa International Hospital, Islamabad. Both private facilities<sup>49</sup>.
- 4.1.4 An article by Awan U A, Guo X, Khattak A A, Hassan U and Khan S, published in The Lancet on 17 February 2024, stated 'Only 40 institutions (government and private) across the country declare themselves cancer treatment centres, yet the demand from patients considerably outweighs the supply.<sup>50</sup> The same source noted that there were '... fewer than 250 expert medical or radiation oncologists...' practising in Pakistan<sup>51</sup>.

**Back to Contents** 

# 4.2 Cost of treatment

- 4.2.1 Awan U A and others noted in a February 2024 article that 'The state-of-theart Shaukat Khanum Memorial Cancer Hospital and Research Centre (SKMCH&RC), founded by former Prime Minister Imran Khan, is supported by national and international fundraising efforts, and treats patients from Pakistan, Afghanistan, and Tajikistan, irrespective of their capacity to pay for treatment.'<sup>52</sup>
- 4.2.2 On 17 April 2024, The Express Tribune reported that the cost of cancer treatment in Pakistan was inaccessible for many due to 'exorbitant costs'. The report stated that according to Professor Dr Noor Muhammad Soomro, former head of the Civil Hospital's cancer department, the cost of chemotherapy depended on the stage of the disease. Dr Soomro told the Tribune that "There may be 3 to 18 sessions of chemotherapy and radiation therapy sessions may range from 5 to 30 sessions. Chemotherapy costs between Rs 100,000 to Rs 500,000 per patient. Whereas radiation therapy

<sup>&</sup>lt;sup>47</sup> Ministry of Finance, Pakistan Economic Survey 2022-23 (page 191), 2023

 <sup>&</sup>lt;sup>48</sup> Faisal A and others, <u>Recently Top Trending Cancers...</u> (Materials and Methods), 16 March 2023
 <sup>49</sup> MedCOI, 2 February 2019

<sup>&</sup>lt;sup>50</sup> Awan U A and others, <u>Economic crises and cancer care in Pakistan...</u>, 17 February 2024

<sup>&</sup>lt;sup>51</sup> Awan U A and others, Economic crises and cancer care in Pakistan..., 17 February 2024

<sup>&</sup>lt;sup>52</sup> Awan U A and others, Economic crises and cancer care in Pakistan..., 17 February 2024

costs between Rs 5,000 to Rs 15,000 per session." Dr Soomro further added that despite the high costs, radiation therapy is not readily available at government hospitals...' One breast cancer patient told the Tribune that her private hospital chemotherapy treatment cost Rs 40,000 per session, whilst radiotherapy cost Rs 15,000 per session<sup>53</sup>.

# **Back to Contents**

## 4.3 Leukaemia

4.3.1 A MedCOI response from 2018 indicated that treatment of leukaemia (the example given was chronical myelogenous leukaemia in acceleration phase) was available at the following facilities:

'Shifa International Hospital, H-8, Islamabad (private facility):

'Aga Khan University Hospital, Stadium Road, Karachi (private facility):

- 'Oncology: chemotherapy
- 'Inpatient, outpatient and follow-up treatment by a haematologist
- 'Inpatient, outpatient and follow-up treatment by an oncologist
- 'Laboratory research of blood count related to leukaemia
- 'Inpatient, outpatient and follow-up treatment by an internal specialist (internist)'<sup>54</sup>.
- 4.3.2 Information on MedCOI indicated that the medication used to treat chronical myelogenous leukaemia in acceleration phase can be obtained at:
  - 'D Watson Chemist Blue Area, Islamabad (private facility):
  - 'Al Kausar Medicos MA Jinnah Road, Karachi (private facility):
    - 'Hydroxycarbamide ( = hydroxyurea)
    - 'Oncology: cytostatics/ chemotherapy/ antineoplastics
    - o 'Nilotinib hydrochloride monohydrate, Oncology: other.'55

#### Back to Contents

#### 4.4 Other cancers

4.4.1 The Shaukat Khanum Memorial Cancer Hospital and Research Centre situated in Lahore and Peshawar noted provision of:

<sup>•</sup>... holistic care to breast cancer patients while making sure that every patient feels comfortable. We provide state-of-the-art diagnostic and treatment facilities, including chemotherapy, surgery, radiotherapy, and more advanced targeted treatments. Our surgical department offers all the latest surgical techniques for breast cancer, including mammoplasties, wire guided surgeries, sentinel lymph node biopsy (SLNB), fat transfer, breast reconstruction (implants & flaps), and nipple reconstruction.<sup>756</sup>

<sup>&</sup>lt;sup>53</sup> Express Tribune, <u>Cancer treatment out of reach for the poor</u> 17 April 2024

<sup>&</sup>lt;sup>54</sup> MedCOI, 14 July 2018

<sup>&</sup>lt;sup>55</sup> MedCOI, 14 July 2018

<sup>&</sup>lt;sup>56</sup> Shaukat Khanum Memorial Trust, <u>Breast Cancer in Pakistan...</u>, no date

- 4.4.2 Aga Khan University Hospital<sup>57</sup> and the Shifa International Hospital<sup>58 59</sup> (both private facilities) provided treatment for breast cancer.
- 4.4.3 The Aga Khan University Hospital noted in an undated report that 'Cancer in the prostate is a relatively common disease amongst ageing men.'<sup>60</sup> Both Aga Khan University Hospital and the Shifa International Hospital noted services providing surgery, radiation, hormone therapy, and chemotherapy for prostate cancer<sup>61</sup> <sup>62</sup>.

**Back to Contents** 

# 5. Cardiology (heart conditions)

#### 5.1 Treatment and resources

5.1.1 Samad Z and Hanif B observed that:

'At present, 1147 trained cardiologists have been awarded cardiology fellowship through the College of Physicians and Surgeons Pakistan and 813 trainees are enrolled in 47 approved training programs...

'Intentional investment in the management of CVDs [cardiovascular diseases] has included the development of a network of cardiac care hospitals: there are 9 satellite centers across the Sindh Province with a flagship center, the National Institute of Cardiovascular Diseases, in Karachi.'<sup>63</sup>

- 5.1.2 A MedCOI response in 2019 noted that the following treatments and procedures were available at the Aga Khan University Hospital, Karachi and the Shifa International Hospital, Islamabad, both private facilities:
  - 'Cardiac Surgery of Catheter Ablation [removing a faulty electrical pathway of the heart]
  - 'Electrical cardioversions procedures
  - 'Outpatient/Inpatient treatment by a cardiac surgeon'<sup>64</sup>.
- 5.1.3 A MedCOI response in 2019 noted the following treatments and procedures as available at the Aga Khan University Hospital and the Rawalpindi Institute of Cardiology (public facility):
  - 'Inpatient, outpatient treatment and follow up by a cardiologist
  - 'Placement of an Implantable Cardioverter Defibrillator [ICD]
  - 'Coronary Artery Bypass Grafting
  - 'Coronary Angioplasty [including a follow up]

<sup>&</sup>lt;sup>57</sup> Aga Khan University Hospital, <u>Breast Tumour/ Breast Cancer</u>, no date

<sup>&</sup>lt;sup>58</sup> Shifa International Hospital, Latest Advancements in Breast Cancer..., no date

<sup>&</sup>lt;sup>59</sup> Shifa International Hospital, <u>Shifa Breast Clinic</u>, no date

<sup>&</sup>lt;sup>60</sup> Aga Khan University Hospital, <u>Prostate Cancer</u>, no date

<sup>&</sup>lt;sup>61</sup> Aga Khan University Hospital, <u>Prostate Cancer</u>, no date

<sup>&</sup>lt;sup>62</sup> Shifa International Hospital, <u>Prostate Cancer Treatment...</u>, 13 December 2021

<sup>&</sup>lt;sup>63</sup> Samad Z and Hanif B, Cardiovascular Diseases..., 24 April 2023

<sup>&</sup>lt;sup>64</sup> MedCOI, 28 November 2019

- 'Heart Valve Surgery'<sup>65</sup>.
- 5.1.4 In February 2020, MedCOI listed the following treatments and procedures available at the Aga Khan University Hospital and the Shifa International Hospital:
  - 'Outpatient treatment and follow up by a cardiologist
  - 'Diagnostic imaging by means of ultrasound of the heart (echocardiography)
  - 'Diagnostic imaging: ECG (electro cardio gram; cardiology)
  - 'Inpatient treatment by a cardiologist
  - 'Inpatient treatment by a cardiac surgeon
  - 'Outpatient treatment and follow up by a cardiac surgeon'<sup>66</sup>

**Back to Contents** 

# 5.2 Cost of treatment

5.2.1 Samad Z and Hanif B noted in an article dated April 2023 that the network of cardiac care centres in Sindh '... provide cost-free care to all patients with ST-segment–elevation myocardial infarction [(STEMI) a type of heart attack where there is a long interruption to the blood supply<sup>67</sup>]...

'Cost of care is often borne by the patient because most patients ( $\approx$ 70%) choose to obtain care at private facilities. To protect against catastrophic health expenditure, the federal and provincial governments have introduced the Sehat Sahulat Program and the Social Health Protection Initiative [a health financing grant from the German Development Bank for the poor in the two provinces of Khyber Pakhtunkhwa and Gilgit Baltistan<sup>68</sup>] to cover inpatient care. Initial reports from the Khyber Pakhtunkhwa Province show that cardiovascular care represents the highest number of claims. These initiatives ideally should evolve to cover outpatient visits, medications, and preventive primary care.<sup>69</sup>

#### Back to Contents

#### 6. Diabetes

- 6.1.1 The Diabetes Centre, with clinics in Islamabad and Lahore, noted provision of comprehensive preventive, promotive, curative and rehabilitative services for diabetes patients, irrespective of their ability to pay<sup>70</sup>.
- 6.1.2 The Diabetes Association of Pakistan, Karachi, noted that it provided '[F]ree of cost services to the poor and deserving men, widows, orphans and children, medical care and consultation, hypoglycaemic agents, Insulin injections, advice on diet control and education on diabetes. "Foot Care

<sup>&</sup>lt;sup>65</sup> MedCOI, 21 December 2019

<sup>&</sup>lt;sup>66</sup> MedCOI, 4 February 2020

<sup>&</sup>lt;sup>67</sup> NHS, <u>Diagnosis Heart attack</u> (STEMI), 13 July 2023

<sup>&</sup>lt;sup>68</sup> Oxford Policy Management, Social health Protection Initiative in Pakistan, no date

<sup>&</sup>lt;sup>69</sup> Samad Z and Hanif B, <u>Cardiovascular Diseases...</u>, 24 April 2023

<sup>&</sup>lt;sup>70</sup> The Diabetes Centre, <u>Our Services</u>, no date

Clinic" provides consultation and treatment of infection due to diabetes.<sup>71</sup>

- 6.1.3 MedCOI responses in 2019 noted that the following treatments and procedures were available at the Aga Khan University Hospital, Stadium Road, Karachi and the Shifa International Hospital H-8, Islamabad, both private facilities:
  - 'Inpatient, outpatient and follow-up by a haematologist
  - 'Medical devices internal medicine: blood glucose self-test strips for use by patient
  - 'Laboratory research of blood glucose (incl: HbA1C/ glyc.Hb<sup>72</sup>).'<sup>73 74 75</sup>
- 6.1.4 MedCOI noted that medications used in the treatment of diabetes can be obtained from AI Kausar Medicos, M A Jinnah Road, Karachi (private facility), and D Watson Chemist, Blue Area, Islamabad, (private facility):
  - 'Metformin- diabetes: oral/ tablets
  - 'Gliclazide- diabetes: oral/ tablets<sup>76</sup>
  - 'Insulin, premixed: combination of lispro (rapid acting)and insulin lispro protamine (intermediate acting)- diabetes: insulin injections; mix of intermediate and rapid acting
  - 'Insulin, premixed: aspart (rapid acting) and aspart protamine (intermediate acting) like 
     Novomix - diabetes: insulin injections; mix of intermediate and rapid acting<sup>77</sup>
  - 'Insulin: long acting [24hr]; insulin glargine like ®Lantus- diabetes: insulin injections; long acting [24 hr]
  - 'Empagliflozin diabetes: oral/ tablets
  - 'Dapagliflozin diabetes: oral/ tablets<sup>78</sup>
  - 'Sitagliptin diabetes: oral/ tablets.'79

Back to Contents

# 7. Eye treatment (ophthalmology)

- 7.1.1 According to a MedCOI response in December 2019, inpatient, outpatient and follow-up was available at both the Aga Khan University Hospital, Karachi, and the Shifa International Hospital H-8, Islamabad, both private facilities<sup>80</sup>.
- 7.1.2 A MedCOI response dated May 2020 noted that surgery, specifically ophthalmological laser treatment for cataracts was available at both Aga

<sup>&</sup>lt;sup>71</sup> Diabetes Association of Pakistan, <u>About DAP</u>, no date

<sup>&</sup>lt;sup>72</sup> Diabetes UK, What is HBA1C?, no date

<sup>&</sup>lt;sup>73</sup> MedCOI, 16 May 2019

<sup>&</sup>lt;sup>74</sup> MedCOI, 28 January 2019

<sup>75</sup> MedCOI, 21 January 2019

<sup>&</sup>lt;sup>76</sup> MedCOI, 16 May 2019

<sup>77</sup> MedCOI, 28 January 2019

<sup>&</sup>lt;sup>78</sup> MedCOI, 21 December 2019

<sup>&</sup>lt;sup>79</sup> MedCOI, 2 May 2020

<sup>&</sup>lt;sup>80</sup> MedCOI, 21 December 2019

Khan University Hospital, and Shifa International Hospital<sup>81</sup>.

- 7.1.3 The May 2020 MedCOI response noted that the following ophthalmic medication was available at:
  - 'Al Kausar Medicos, M A Jinnah Road, Karachi, (private facility):
  - 'D Watson Chemist Blue Area, Islamabad, (private facility):
    - 'Ketotifen fumarate eyedrops ophthalmology: antihistamines
    - o 'Bevacizumab ophthalmology: for macular degeneration
    - 'Ranibizumab ophthalmology: for macular degeneration
    - 'Bevacizumab and ranibizumab intra-ocular injections are available.'<sup>82</sup>
- 7.1.4 See eye treatments offered at the Al-Shifa Trust Eye Hospital.

# Back to Contents

# 8. Gastroenterology, internal medicine and diagnostic imaging

8.1.1 The Aga Khan University Medical College, Pakistan, noted on its website in its page on Gastroenterology accessed in May 2024 that it:

<sup>•</sup>... provides state-of-the-art endoscopy services and research activities of the GI faculty (four full-time and four non-full-time members) and has leading research productivity. The Section provides procedures which include esophagogastroduodenoscopy, endoscopic variceal sclerotherapy, endoscopic band ligation, colonoscopy, polypectomies, electrocoagulation, endoscopic retrograde cholangiopancreatography (ERCP), common bile duct stone extraction, etc. The Section has launched a new clinical GI service, the Esophageal pH and Manometry Unit, capable of performing 24-hour ambulatory oesophageal pH monitoring and oesophageal manometry.<sup>\*83</sup>

8.1.2 The Shifa International Hospital's Department of Gastroenterology and Hepatology stated it:

'... consists of seasoned Gastroenterologists, Consultants, Technicians, Nurses, and Pharmacists to offer patients thorough guidance about their illness and help them along their journey to recovery. The Gastroenterology department also provides consultancy to its neighbouring Liver Transplant Department [also see <u>Liver disease</u>], making a joint effort to provide the best possible medical treatment to its patients. Our specialists provide consultancy to pre and post-liver transplant patients.'<sup>84</sup>

8.1.3 In February 2020 MedCOI noted that gastroenterological care/treatment such as tube feeding (nasogastric) and gastroenterological care/treatment such as tube feeding (PEG) was available at the Aga Khan University Hospital Stadium Road, Karachi and the Shifa International Hospital,

<sup>81</sup> MedCOI, 21 May 2020

<sup>82</sup> MedCOI, 21 May 2020

<sup>&</sup>lt;sup>83</sup> The Aga Khan University Medical College, Pakistan, <u>Section of...</u>, no date

<sup>&</sup>lt;sup>84</sup> Shifa International Hospitals Ltd, <u>Home- Gastroenterology</u>, no date

Islamabad<sup>85</sup>. A dietician was available at the same facilities<sup>86</sup>.

- 8.1.4 In January 2020 it was noted by MedCOI that inpatient, outpatient treatment and follow up by a gastroenterologist and gastrointestinal surgery was available at the Aga Khan University Hospital, Karachi and the Shifa International Hospital, Islamabad<sup>87</sup>.
- 8.1.5 A MedCOI response, dated December 2019, noted that at the Aga Khan University Hospital in Karachi and the Shifa International Hospital in Islamabad, the following treatments were available:
  - 'Outpatient treatment and follow up by a general practitioner
  - 'Inpatient, outpatient and follow- up by an internal specialist (internist)
  - 'Inpatient, outpatient, and follow up treatment by an infectiologist'<sup>88</sup>.
- 8.1.6 The December 2019 MedCOI response noted that Inpatient, outpatient and follow-up treatment by an endocrinologist was available at Aga Khan University Hospital, Karachi and Shifa International Hospital, Islamabad<sup>89</sup>.
- 8.1.7 MedCOI further reported in December 2019 that diagnostic imaging by means of ultrasound was also available at the Aga Khan University Hospital Stadium Road in Karachi and the Shifa International Hospital in Islamabad .
- 8.1.8 MedCOI noted in September 2018 that diagnostic imaging by means of computed tomography (CT scan) and diagnostic imaging by means of MRI were available at the Aga Khan University Hospital Stadium Road in Karachi and the Shifa International Hospital in Islamabad<sup>90</sup>.

Back to Contents

# 9. Geriatrics

# 9.1 Physical therapy, assistance, and medical orthopaedic devices

- 9.1.1 According to the Aga Khan University Hospital, it provided health consultations for people aged 60 and over<sup>91</sup> and home health services that are '... designed to make quality medical care more easily accessible, comfortable and convenient for people who are elderly, chronically ill, living with incurable diseases, recovering from surgery, disabled or need specialised care.<sup>92</sup>
- 9.1.2 The same source added that services included:
  - 'Long stay home care
  - 'Home nursing short procedures
  - 'Home physician consultation

<sup>&</sup>lt;sup>85</sup> MedCOI, 19 February 2020

<sup>&</sup>lt;sup>86</sup> MedCOI, 31 January 2020

<sup>&</sup>lt;sup>87</sup> MedCOI, 31 January 2020

<sup>&</sup>lt;sup>88</sup> MedCOI, 21 December 2019

<sup>&</sup>lt;sup>89</sup> MedCOI, 21 December 2019

<sup>&</sup>lt;sup>90</sup> MedCOI, 4 September 2018

<sup>&</sup>lt;sup>91</sup> The Aga Khan University Hospital, <u>About Us, Crossed the Age of 60?...</u>, no date

<sup>&</sup>lt;sup>92</sup> The Aga Khan University Hospital, <u>Home Health Services</u>, no date

- 'Home physiotherapy
- 'Medical equipment either for purchase or to rent.'93
- 9.1.3 The Shifa International Hospital noted its geriatric care services '... serves the health and wellness needs of adults at the age of 65 years and older. Anyone in this age range can receive primary care in our patient-centered medical home. However, our team is best suited to provide care for people who are:
  - '85 years and older
  - 'Have functional or cognitive limitations, or
  - 'Multiple, chronic medical conditions.'94
- 9.1.4 A MedCOI response in May 2020 noted that the following treatments and procedures were available at the Aga Khan University Hospital, Stadium Road, Karachi and the Shifa International Hospital H-8, Islamabad, both private facilities:
  - 'Inpatient, outpatient and follow-up by a physical therapist.'95
  - 'medical devices orthopaedics: walking aid such as a walker or a cane
  - 'home assistance / care at home by a nurse.'96
- 9.1.5 Also see <u>palliative care.</u>

#### Back to Contents

#### 10. HIV/AIDS

#### 10.1 Treatment and resources

10.1.1 The Pakistan Economic Survey 2022-23 cited Pakistan's National AIDS Control Program (NACP) and noted that:

'All four provinces also have dedicated HIV control programs. Through different modelling techniques, as per WHO data for year 2021, it is estimated that in Pakistan, 210,000 people are living with HIV/AIDS. The HIV response comprises of prevention and treatment. There are 49 HIV treatment centres across Pakistan, 4 in KPK, 2 in Balochistan, 2 in Islamabad, 16 in Sindh, and 25 in Punjab. As of December 2021, 29,626 HIV patients were taking Antiretroviral (ARV) medicines and 7,056 people were on ARV therapy.'<sup>97</sup>

Back to Contents

# 11. Liver disease

- 11.1 Treatment
- 11.1.1 Alsa Pakistan, a private health company<sup>98</sup> stated it provided treatment for

<sup>&</sup>lt;sup>93</sup> The Aga Khan University Hospital, <u>Home Health Services</u>, no date

<sup>&</sup>lt;sup>94</sup> Shifa International Hospitals Ltd, <u>Geriatric Care Services</u>, no date

<sup>&</sup>lt;sup>95</sup> MedCOI, 28 January 2019

<sup>&</sup>lt;sup>96</sup> MedCOI, 2 May 2020

<sup>&</sup>lt;sup>97</sup> Ministry of Finance, Pakistan Economic Survey 2022-23 (page 191), 2023

<sup>&</sup>lt;sup>98</sup> Alsa Pakistan, <u>About, History of Alsa Pakistan</u>, no date

fatty liver disease<sup>99</sup> and the Shifa International Hospital, Islamabad, noted it '... is the pioneering and longest running liver transplant center in the country which houses Pakistan's largest liver transplant team providing quality and integrated care under one roof.'<sup>100</sup>

11.1.2 Also see <u>Hepatitis</u>.

#### Back to Contents

#### 11.2 Hepatitis

- 11.2.1 Both the Aga Khan University Hospital<sup>101</sup><sup>102</sup> and the Shifa International Hospital<sup>103</sup> noted provision of care for Hepatitis B and C (also <u>see Liver</u> <u>disease</u>).
- 11.2.2 A MedCOI response in December 2019 noted that treatment for chronic hepatitis C with cirrhosis of the liver (also see <u>Liver disease</u>) provided diagnostic research, transient elastography, and a test for liver fibrosis, for example, a Fibro scan was available at:
  - 'Aga Khan University Hospital, Stadium Road, Karachi (private facility)
  - 'Shifa International Hospital H-8, Islamabad (private facility)
  - 'Gastroenterology Associates, F- 8/3, Islamabad (private facility).'<sup>104</sup>

Back to Contents

#### 12. Mental health

#### 12.1 General psychiatry

12.1.1 A report published in 2020 on mental healthcare in Pakistan, by medical practitioners Javed A and others, noted:

'Mental healthcare is provided mostly by public health sector although there have been some recent developments in the private sector as well. Psychiatric care offered by different sectors generally highlights the influence of the British allopathic system on psychiatric care. [...] There are around 400 qualified psychiatrists working in Pakistan. Most of the psychiatrists are working in urban cities although the posts of district psychiatrists have also been created throughout the country. Psychiatrists, in general, are working single handed, although major centers in the country are developing multidisciplinary services.'<sup>105</sup>

12.1.2 The Shifa Tameer- e Millat University's Shifa, Department of Clinical Psychology's Psychological Services Clinic (private facility) indicated that there were '... psychological services for a range of psychiatric disorders such as depression, anxiety, Autism, ADHD [attention deficit hyperactivity disorder<sup>106</sup>], PTSD [post- traumatic stress disorder<sup>107</sup>], OCD [obsessive

<sup>104</sup> MedCOI, 21 December 2019

<sup>&</sup>lt;sup>99</sup> Alsa Pakistan, <u>No Need to Panicked with Fatty Liver Disease</u>, no date

<sup>&</sup>lt;sup>100</sup> Shifa International Hospital, Liver Transplant in Pakistan- A Milestone Achieved, 2023

<sup>&</sup>lt;sup>101</sup> Aga Khan University Hospital, <u>Hepatitis B</u>, no date

<sup>&</sup>lt;sup>102</sup> Aga Khan University Hospital, <u>Hepatitis C</u>, no date

<sup>&</sup>lt;sup>103</sup> Shifa International Hospital, <u>Infectious Diseases</u>, no date

<sup>&</sup>lt;sup>105</sup> Javed A and others, <u>Mental healthcare in Pakistan</u>, 2020

<sup>&</sup>lt;sup>106</sup> NHS, <u>ADHD</u>, no date

<sup>&</sup>lt;sup>107</sup> NHS, PTSD, no date

compulsive disorder<sup>108</sup>] and management of stress, anger and emotional dysregulation.<sup>109</sup>

- 12.1.3 A 2019 MedCOI response noted that treatment and procedures were available at the Aga Khan University Hospital, Stadium Road, Karachi, and the Shifa International Hospital H-8, Islamabad, both private facilities:
  - 'Inpatient, outpatient and follow-up by a psychiatrist
  - 'Inpatient, outpatient and follow-up by a psychologist.'<sup>110</sup>
- 12.1.4 The 2019 MedCOI response noted that mental health care for those with disabilities including long term institutional around the clock care was available at:
  - 'Sir Cowasgi Jahangir Psychiatry Institute, Latifabad, Hyderabad, (public facility).'<sup>111</sup>
- 12.1.5 The WHO Mental Health Atlas 2020 profile for Pakistan published on 15 April 2022 noted that among 1,200 mental health workforce there were:
  - 300 psychiatrists
  - 200 mental health nurses
  - 100 psychologists
  - 600 social workers

operating in 'The care and treatment of persons with mental health conditions (psychosis, bipolar disorder, depression) [which] is included in national health insurance or reimbursement schemes...'<sup>112</sup>

- 12.1.6 The same source added that persons pay at least 20% towards the cost of services and medicines<sup>113</sup>.
- 12.1.7 The article on mental illness in Pakistan published in August 2023, authored by research fellow Alvi M H and others noted that 'In Pakistan, mental health services are now included in the Sehat Sahulat Program (a health insurance scheme for underprivileged citizens) but to a limited extent. Mental illness is often not covered by insurance, and government spending is considered the major source of financing for affordable healthcare.'<sup>114</sup>

# Back to Contents

# 12.2 Drug addiction

12.2.1 In an article published in September 2023 entitled 'Drug overdose in Pakistan, a growing concern; A Review', authored by medical practitioners Ochani S and others, noted that 'In Pakistan, an estimated 7 million individuals take drugs regularly. Among them, 4 million use cannabis, and 2.7 million use opiates. Since 2005, ANF [Anti-Narcotics Force] Model

<sup>&</sup>lt;sup>108</sup> NHS, <u>OCD</u>, no date

<sup>&</sup>lt;sup>109</sup> Shifa Tameer-e-Millat University, Department of Clinical Psychology, no date

<sup>&</sup>lt;sup>110</sup> MedCOI, 28 January 2019

<sup>&</sup>lt;sup>111</sup> MeCOI, 28 January 2019

<sup>&</sup>lt;sup>112</sup> WHO, Mental Health Atlas 2020, 15 April 2022

<sup>&</sup>lt;sup>113</sup> WHO, Mental Health Atlas 2020, 15 April 2022

<sup>&</sup>lt;sup>114</sup> Alvi M H and others, Economic burden of mental illness in Pakistan..., August 2023

Addiction Treatment & Rehabilitation Centers (<u>MATRC</u>) have treated more than 14 000 patients.<sup>115</sup> The Shifa Tameer-e-Millat University noted it provided supported rehabilitation services for chronic psychiatric disorders and substance use disorders<sup>116</sup>.

- 12.2.2 Treatment for drug addiction and alcohol abuse was also found to be available at The Islamabad Rehab Clinic (IRC)<sup>117</sup>.
- 12.2.3 Devex, a media platform for the global development community<sup>118</sup> noted:

'DOST Welfare Foundation (DOST) is a nonprofit, non-governmental organisation established in August 1992 in response to the need for combating the increasing drug use and other related problems in Pakistan.

'DOST provides a comprehensive range of drug demand and drug harm reduction services for drug users in different community settings. DOST also works for the human rights protection, and for the rehabilitation and social reintegration of destitute, street children, juvenile offenders, women and minor children in prisons.

'With a staff of over 100, DOST provides a continuum of care and quality services through its programmes for drug abuse prevention, treatment and rehabilitation, drug harm reduction, HIV/ AIDS prevention, vocational skills training, research, advocacy and networking. All DOST programmes are based on human rights protection of marginalised groups such as drug users, street children, juvenile offenders, women and minor children in prisons. DOST enables these vulnerable persons to explore the underlying factors of their drug misuse and imprisonment, to come to terms with past traumatic experiences, examine attitudes and behaviour patterns, receive training in life and social skills and re-integrate into the community and society.'<sup>119</sup>

12.2.4 The news outlet Pakistan Forward<sup>120</sup> reported in March 2019 that:

'The Khyber Pakhtunkhwa (KP) government has opened Pakistan's first rehabilitation centre for users of crystal meth and other drugs to help addicts return to a normal life.

'The 100-bed facility is aimed at helping local residents addicted to drugs, especially crystal meth, also known as "ice". There are separate detoxification wards for males and females in the centre, set up with support from the Social Welfare Department.'<sup>121</sup>

12.2.5 Radio Free Europe/ Radio Liberty (RFE/ RL), an international media organisation that broadcasts and reports news and analysis to Eastern Europe, Central Asia and the Caucasus<sup>122</sup> reported on 20 May 2023 that '…dozens of people … receive treatment at the Rokhana Saba drug rehabilitation center in northwestern Pakistan…Although there are no official

<sup>&</sup>lt;sup>115</sup> Ochani S and others, <u>Drug overdose in Pakistan, a growing concern; A Review</u>, September 2023

<sup>&</sup>lt;sup>116</sup> Shifa Tameer-e-Millat University, <u>Department of Clinical Psychology</u>, no date

<sup>&</sup>lt;sup>117</sup> IRC, <u>Home</u>, no date

<sup>&</sup>lt;sup>118</sup> Devex, <u>About- DOST Welfare Foundation</u>, no date

<sup>&</sup>lt;sup>119</sup> Devex, About- DOST Welfare Foundation, no date

<sup>&</sup>lt;sup>120</sup> Pakistan Forward, <u>Home</u>, no date

<sup>&</sup>lt;sup>121</sup> Pakistan Forward, Pakistan's 1<sup>st</sup> rehab centre..., 15 March 2019

<sup>&</sup>lt;sup>122</sup> RFE/ RL, <u>About</u>, no date

statistics, health professionals in the South Asian nation of some 240 million warn that addiction to crystal meth is soaring.<sup>123</sup>

- 12.2.6 A MedCOI response in 2019 noted that psychiatric treatment of drug addiction in a specialised clinic (rehab), inpatient, outpatient and follow- up treatment by a psychiatrist and psychologist (including clinical care with methadone) was available at the following facilities:
  - 'Dost Foundation, Hayatabad, Peshawar (private facility)
  - 'Free Meth Drug Addict Centre, Peshawar City, Peshawar (public facility).'<sup>124</sup>
- 12.2.7 Also see the Government of the Punjab's Social Welfare and Bait- ul- Maal Department services at its <u>drug rehabilitation centre</u><sup>125</sup>.

**Back to Contents** 

#### 13. Musculoskeletal conditions

- 13.1.1 Non- surgical laser treatments for muscular, skeletal, and neurological pains was found to be available at the private facility Bio Flex Pakistan, located in Islamabad, Karachi, Peshawar and Khyber Pakhtunkhwa, a company which utilizes Canadian technology<sup>126</sup>.
- 13.1.2 The same source added in a report on treatment published in June 2020:

'Musculoskeletal pain affects the individual's joints, muscles, ligaments, tendons, nerves, blood vessels, discs, or bones. The pain results in an injury to the body movement system of an individual.

'The musculoskeletal conditions include carpal tunnel syndrome, tendonitis, rheumatoid arthritis, osteoarthritis, bone fractures, fibromyalgia, degenerative disc disease, herniated disc, and others. These conditions are common at all ages...

'The common areas affected by musculoskeletal pain disorders (MSD) include shoulders, neck, wrists, legs, back, hips, knees, or feet.'<sup>127</sup>

- 13.1.3 A MedCOI response dated August 2019 noted that inpatient, outpatient and follow-up treatment by a rheumatologist and physical therapist, as well as laboratory research related to rheumatologic diseases (like RA, ANA, anti-CCP) was available at the Combined Military Hospital (CMH), Lahore (Public Facility) and Shaikh Zaid Hospital Lahore, (Private Facility).<sup>128</sup>
- 13.1.4 According to MedCOI in January 2020 Inpatient, outpatient and follow-up treatment by a physical therapist and a paediatric physical therapist was available at Aga Khan University Hospital, Karachi, and Shifa International Hospital, Islamabad (private facilities)<sup>129</sup>.
- 13.1.5 MedCOI noted in a response dated 4 February 2020 that inpatient,

<sup>126</sup> Bioflex Pakistan, <u>Home</u>, no date

<sup>&</sup>lt;sup>123</sup> RFE/ RL, <u>Crystal Meth Addiction "Rapidly Spreading" in Pakistan</u>, 20 May 2023

<sup>&</sup>lt;sup>124</sup> MedCOI, 29 June 2019

<sup>&</sup>lt;sup>125</sup> Social Welfare and Bait- ul- Maal, <u>Drug Rehabilitation Center</u>, no date

<sup>&</sup>lt;sup>127</sup> Bioflex Pakistan, Musculoskeletal Pain Disorders and Treatment, 4 June 2020

<sup>&</sup>lt;sup>128</sup> MedCOI, 28 August 2019

<sup>&</sup>lt;sup>129</sup> MedCOI, 31 January 2020

outpatient and follow-up treatment were available by an orthopaedist / orthopaedic surgeon and a rheumatologist at Aga Khan University Hospital, Karachi, and Shifa International Hospital, Islamabad (private facilities)<sup>130</sup>.

# 14. Neurological conditions including epilepsy

- 14.1.1 The private facility, Shalamar Hospital's Neurology Department noted it '...is trained to investigate, diagnose and treat neurological disorders. Our neurologists are involved in clinical research, clinical trials and translational research. The Neurology Department primarily offers diagnosis and treatment options for diseases relating to the neurological system ....<sup>'131</sup>
- 14.1.2 An article published on 31 August 2023 entitled 'Novel Approaches for Treatment of Epilepsy', in the Pakistan Journal of Health Sciences, authored by medical practitioners, Waqar M A and others, noted that 'Epilepsy is a serious neurological disorder on the juncture of psychiatry and neurology. It is characterized by recurrent and episodic seizures which are due to excessive discharge by the brain neurons...'<sup>132</sup>
- 14.1.3 Treatment for epilepsy was found to be available at the private facility, Shifa International Hospital<sup>133</sup>, the National Epilepsy Centre, a non- governmental organisation (NGO) institution designed exclusively for epilepsy care<sup>134</sup>, and the Aga Khan University Hospital<sup>135</sup>.

Back to Contents

# **15. Obstetrics and gynaecology**

- 15.1.1 Obstetrics and gynaecology care included:
  - Begum Haseena Memorial Hospital Complex (BHMHC), adjacent to Brainiacs Public School, Phase 2 New City, Wah Cantt, Pakistan<sup>136</sup> (NGO run facility with some free services)
  - A list of <u>obstetricians and gynaecologists in Islamabad</u><sup>137</sup> (known as female or women's health specialists) in various private facilities
  - Shalamar Hospital's Obstetrics and Gynaecology, Shalimar Link Road, Larechs Colony, Lahore, Punjab 54000, Pakistan (private facility)<sup>138</sup>
  - The Aga Khan Maternal and Child Care Centre, Hyderabad, Obstetrics and Gynaecology Services<sup>139</sup> (private facility)
  - Shifa International Department of Obstetrics and Gynaecology (private facility)<sup>140</sup>

<sup>&</sup>lt;sup>130</sup> MedCOI, 4 February 2020

<sup>&</sup>lt;sup>131</sup> Shalamar Hospital, <u>Neurology</u>, no date

<sup>&</sup>lt;sup>132</sup> Waqar M A and others, <u>Novel Approaches for Treatment of Epilepsy</u>, 31 August 2023

<sup>&</sup>lt;sup>133</sup> Shifa International Hospitals Ltd, Epilepsy Treatment through..., last updated 2023

<sup>&</sup>lt;sup>134</sup> National Epilepsy Centre, <u>Improve Quality of Life of People with Epilepsy</u>, no date

<sup>&</sup>lt;sup>135</sup> The Aga Khan University Hospital, <u>Symptomatic Epilepsy</u>, no date

<sup>&</sup>lt;sup>136</sup> BHMHC, Obstetrics and gynaecology, no date

<sup>&</sup>lt;sup>137</sup> Oladoc, <u>200 Best Gynaecologists in Islamabad</u>, no date

<sup>&</sup>lt;sup>138</sup> Shalamar Hospital, Obstetrics and gynaecology, no date

<sup>&</sup>lt;sup>139</sup> Aga Khan University Hospital, <u>Obstetrics and gynaecology Services</u>, no date

<sup>&</sup>lt;sup>140</sup> Shifa International Hospital, <u>Department of Obstetrics and gynaecology</u>, no date

#### 16. **Orthopaedics**

- 16.1.1 The Aga Khan University Hospital's Section of Orthopaedic Surgery noted it provides a broad spectrum of surgical treatments to patients suffering from bone, joint, ligament, tendon, muscle, and nerve diseases and injuries that cause pain and affect mobility.'141
- 16.1.2 The same source added that:

'...services that include but are not limited to surgical and non-surgical treatments for fractures and trauma. In addition, we have state-of-the-art specialists who treat sports injuries, tendon, cartilage, and ligament injuries, perform primary and revision knee, hip and shoulder replacements, bone, and soft tissue tumour surgeries, and handle paediatric orthopaedic, hand, brachial plexus, and spine related issues.

... specialists work closely with and are supported by radiology, laboratory, pharmacy, physiotherapy, and rehabilitation specialists among others.

'Some of the specialist orthopaedic services offered ... include:

- 'Foot and ankle clinic
- 'Sports Medicine and Injuries Clinic
- 'Joint Replacement Surgery
- 'Flat Foot Correction
- 'Brachial Plexus Treatment •
- 'Bone and Joint Tumour Surgery •
- 'Limb Lengthening and Reconstructive Surgery.'142 •
- 16.1.3 The Shifa International Hospital in Islamabad noted that its:

'Orthopaedic surgery is a specialty dealing with acute injuries, congenital and acquired disorders, and chronic arthritic or overuse conditions of the bones, joints, and their associated soft tissues, including ligaments, nerves, and muscles...

'The orthopaedic surgeons are dealing with all major elective procedures such as hip and knee replacements, limb preservation surgery in bone tumours, knee and shoulder arthroscopies, limb length and limb deformity correction with Ilizarov external fixators... The orthopaedic unit provides 24/7 trauma services and covers all aspects of trauma including pelvic and acetabular fracture fixation, intramedullary nailing, management of open and closed fractures...'143

16.1.4 See also a list of orthopaedic surgeons in Islamabad from various private facilities<sup>144</sup> and private clinics that provide orthopaedic services in

 <sup>&</sup>lt;sup>141</sup> Aga Khan University Hospital, <u>Section of Orthopaedic Surgery</u>, no date
 <sup>142</sup> Aga Khan University Hospital, <u>Section of Orthopaedic Surgery</u>, no date

<sup>&</sup>lt;sup>143</sup> Shifa International Hospital, Orthopaedic Surgery, no date

<sup>&</sup>lt;sup>144</sup> Oladoc, <u>83 Best Orthopaedic Surgeons in Islamabad</u>, no date

Pakistan<sup>145</sup>.

- 16.1.5 A MedCOI response in 2020 noted that inpatient, outpatient and follow- up by an orthopaedist/ orthopaedic surgeon and rheumatologist [also see <u>musculoskeletal conditions</u>] was available at:
  - 'Aga Khan University Hospital, Stadium Road, Karachi (private facility)
  - 'Shifa International Hospital, H-8, Islamabad (private facility).'<sup>146</sup>

Back to Contents

## 17. Paediatrics (children)

#### 17.1 Health strategies and programmes

17.1.1 WHO EMRO observed in an undated report on maternal, newborn and child health that:

'WHO's reproductive, maternal, newborn, child and adolescent health programme provides technical support to health authorities at federal, provincial and area levels for implementing maternal, newborn and child health strategies and programmes. In this regard, technical staff is recruited by WHO in all 4 provinces and at federal level to ensure effective coordination and collaboration.

'WHO is partnering with UNICEF [United Nations International Children's Emergency Fund] to support Ministry of National Health Services, Regulation and Coordination in developing a Strategic Framework on Quality of Care to improve quality of services for mothers and newborns in the country. In partnership with UNICEF and UNFPA [United Nations Population Fund], WHO is supporting implementation of maternal and perinatal death surveillance and response in the provinces of Khyber Pakhtunkhwa and Balochistan. Best practices and learning from this experience will be documented and used as guidance for technical and geographical scaling up over the next years, especially in the priority districts where family practice approach will be implemented.

'WHO has provided technical support to the federal and provincial departments of health for translating the National Health Vision (2016-2025) into 5-year Costed Strategic Action Plans for all 4 provinces and 3 Regions of the country. These action plans provide guidance for implementation, as well as being a powerful advocacy tool for domestic and foreign resource mobilization to support reproductive, maternal, newborn, child and adolescent health programming. WHO is also committed to support development of monitoring and evaluation frameworks for tracking progress against the above mentioned action plans and achieving the set targets.'<sup>147</sup>

17.1.2 WHO EMRO further noted in an undated report on immunization that it'... aims to protect mothers and newborn against tetanus. Immunizing children with these vaccines may avert up to 17% of childhood mortality in Pakistan and thus help contribute towards achieving Sustainable Development Goal

<sup>&</sup>lt;sup>145</sup> What Clinic, Orthopaedic Clinics in Pakistan, no date

<sup>&</sup>lt;sup>146</sup> MedCOI, 4 February 2020

<sup>&</sup>lt;sup>147</sup> WHO EMRO, <u>Maternal, newborn and child health</u>, no date

(SDG) 3, on reducing child morbidity and mortality.<sup>148</sup>

- 17.1.3 MedCOI responses in 2020 noted that inpatient, outpatient and follow-up consultation and treatment by a paediatrician (in general paediatrics), and specialist treatments of diagnostic imaging by means of x-ray radiography was available at the following facilities:
  - 'Agha Khan University Hospital, Stadium Road, Karachi (private facility)
  - 'Shifa International Hospital, Pitras Bukhari Road, H-8/4, Islamabad (private facility).'<sup>149' 150</sup>
  - Liaquat National Hospital, Stadium Road, Karachi, (private facility)<sup>151</sup>
- 17.1.4 Also see Obstetrics and gynaecology

# Back to Contents

# 17.2 Cardiology

17.2.1 Referring to paediatric cardiac surgery, a MedCOI response in 2020, noted:

'Each year, about 50,000-70,000 children are born with congenital heart defects, and almost 25% are in need of surgery within the first year. There are no specialised Children's Heart Hospitals in Pakistan, according to the Pakistan Children Heart Foundation. A paediatric interventional cardiologist was quoted in a newspaper article to say: "A fully functional, state-of-the-art centre with doctors who are specifically trained for such paediatric cases [congenital heart diseases] does not exist in our country," laments Dr Hasan. "Children's Hospital in Lahore is the only exception. The rest of the country has three centres that have this facility, including Karachi's National Institute for Cardiovascular Diseases (NICVD) and Agha Khan University Hospital (AKUH)". Information from Aga Khan University confirms that 4 facilities in the country can perform surgery on patients with congenital heart diseases.

'The country has about 21-25 trained paediatric cardiologists and 4-8 paediatric cardiac surgeons, as the exact number varies slightly according to different sources. Most trained Pakistani surgeons leave the country for countries with better pay and better quality of life, though some are said to be returning to Pakistan. According to the Pakistan Children Heart Foundation, this results in long queues, with 9,000 patients waiting for surgery and 25-30 new cases added to the list each week. According to the Head of Paediatric Cardiology, National Institute of Cardiovascular Diseases (NICVD), 22,000 surgeries need to be performed each year, but only 4,000 are performed each year.

'Due to long wait times, many who can afford go to India for treatment. There may also be other reasons – a patient with Tetralogy of Fallot was advised to seek treatment in India, because although the procedure could be done in Pakistan, the post-operative care was according to the treating doctor not adequate. However, the political tension between the country means it can

<sup>&</sup>lt;sup>148</sup> WHO EMRO, <u>Expanded Programme on Immunization</u>, no date

<sup>&</sup>lt;sup>149</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>150</sup> MedCOI, 6 August 2020

<sup>&</sup>lt;sup>151</sup> MedCOI, 6 August 2020

sometimes be difficult for Pakistani families to obtain a visa.<sup>152</sup>

- 17.2.2 Information found from MedCOI responses in 2020 noted examples of treatment for congenital heart disease in paediatrics:
  - 'Agha Khan University Hospital, Stadium Road, Karachi (private facility):
  - 'Armed Forces Institute of Cardiology (AFIC), Peshawar Road, Rawalpindi (public facility):
    - o 'Inpatient, outpatient and follow-up by a paediatric cardiologist
    - o 'Inpatient, outpatient and follow-up by a paediatric cardiac surgeon
    - o 'Placement, maintenance and follow-up of pacemaker
    - 'Diagnostic imaging by means of ultrasound of the heart (= echocardiography = echocardiogram = TTE)
    - 'Diagnostic imaging : ECG (electro cardio gram; cardiology)
    - o 'Cardiac surgery; paediatric heart surgery.'<sup>153, 154</sup>

#### **Back to Contents**

#### 17.3 Child psychiatry

- 17.3.1 A MedCOI response from 2020 noted that the following treatment was available at:
  - 'Agha Khan University Hospital, Stadium Road, Karachi (private facility):
    - o 'Inpatient, outpatient, and follow- up by a child psychiatrist
    - 'Inpatient, outpatient, and follow-up by a child psychologist
    - Outpatient treatment, diagnostics and counselling by a clinical geneticist.<sup>155</sup>
- 17.3.2 Also see Mental health

#### **Back to Contents**

### 17.4 Ear, nose and throat (ENT), and dentistry

- 17.4.1 The MedCOI response noted that paediatric ear, nose and throat (ENT), and dentistry (including oral/ dental surgery) inpatient, outpatient and follow-up treatments were available at the following facilities:
  - 'Agha Khan University Hospital, Stadium Road, Karachi (private facility)
  - 'Shifa International Hospital, Pitras Bukhari Road, H-8/4, Islamabad (private facility).'<sup>156</sup>

**Back to Contents** 

#### 17.5 Endocrine system (hormone- secreting glands), thyroid, and diabetes

17.5.1 The 2020 MedCOI response indicated that paediatric treatments in

<sup>&</sup>lt;sup>152</sup> MedCOI, 29 January 2020

<sup>&</sup>lt;sup>153</sup> MedCOI, 3 November 2020

<sup>&</sup>lt;sup>154</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>155</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>156</sup> MedCOI, 2 December 2020

endocrinology and thyroid gland was available at the following facilities:

- 'Agha Khan University Hospital, Stadium Road, Karachi (private facility):
- 'Shifa International Hospital, Pitras Bukhari Road, H-8/4, Islamabad (private facility):
  - 'Inpatient, outpatient, and follow-up by endocrinologist<sup>157</sup>
  - 'laboratory research of thyroid functions (TSH, T3, T4) [Thyroid function tests used to check for thyroid problems<sup>158</sup>]
  - 'laboratory research / monitoring of full blood count; e.g. Hb, WBC & platelets [complete blood count or blood test to look at overall health conditions<sup>159</sup>]
  - 'laboratory research of IGF-1 [insulin-like growth factor 1, a hormone that manages the effects of growth in the body<sup>160</sup>] serum concentrations
  - o 'Inpatient, outpatient and follow-up by a dietitian.'<sup>161</sup>

Back to Contents

# 17.6 Gastroenterology

- 17.6.1 The 2020 MedCOI response indicated gastroenterology treatment in paediatrics was available at:
  - 'Agha Khan University Hospital, Stadium Road, Karachi (private facility):
  - 'Shifa International Hospital Pitras Bukhari Road, H-8/4 Islamabad (private facility):
    - 'Inpatient, outpatient and follow-up treatment by a paediatric gastroenterologist
    - 'Gastroenterological care/ treatment such as tube feeding (PEG)'<sup>162</sup>.

# **Back to Contents**

# 17.7 Maple Syrup Urine Disease (MSUD)

- 17.7.1 According to the UKs National Health Service (NHS) 'Maple syrup urine disease (MSUD) is a rare but serious inherited condition. It means the body cannot process certain amino acids (the "building blocks" of protein), causing a harmful build-up of substances in the blood and urine...Babies with MSUD are unable to break down amino acids called leucine, isoleucine and valine. Very high levels of these amino acids are harmful.'<sup>163</sup>
- 17.7.2 In an article published in the Journal of the Pakistan Medical Association, medics Allahwala A, Ahmed S and Afroze B noted that findings from 3

<sup>&</sup>lt;sup>157</sup> Cleveland Clinic, <u>Endocrinologist</u>, no date

<sup>&</sup>lt;sup>158</sup> Health Direct, <u>Thyroid function tests</u>, no date

<sup>&</sup>lt;sup>159</sup> Mayo clinic, Complete blood count (CBC), no date

<sup>&</sup>lt;sup>160</sup> Medline Plus, IGF-1 (Insulin- like Growth Factor 1) Test, Last updated 10 August 2021

<sup>&</sup>lt;sup>161</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>162</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>163</sup> NHS, <u>Maple syrup urine disease</u>, no date

patients took place from a study indicating treatment for MSUP disease was available at the Department of Paediatrics and Child Health, Aga Khan University, Karachi, Pakistan<sup>164</sup>.

17.7.3 References to treatment of MSUD were made at <u>Liaquat National Hospital</u>, and the <u>Aga Khan University Hospital</u>.

**Back to Contents** 

#### 17.8 Neurology and epilepsy

- 17.8.1 MedCOI responses in 2020 noted neurological treatment in paediatrics was available at:
  - 'Shifa International Hospital, Pitras Bukhari Road, H-8/4 Islamabad (private facility):
    - $\circ$  'Inpatient, outpatient and follow-up treatment by a paediatric neurologist  $^{165}$
  - 'Agha Khan University Hospital, Stadium Road, Karachi (private facility):
  - 'Liaquat National Hospital, Stadium Road, Karachi (private facility):
    - 'Inpatient, outpatient and follow- up treatment by a paediatric neurologist.'<sup>166' 167</sup>
    - 'Neurosurgery: neurosurgical treatment of epilepsy
    - 'Special clinic for epilepsy patients
    - 'Diagnostic imaging by means of EEG (Electro Encephalo Gram).'<sup>168</sup>
- 17.8.2 Information on MedCOI in 2020 indicated that medication for epilepsy in paediatrics can be obtained at the following facilities:
  - 'Aga Khan Super Market Pharmacy, Clifton, Karachi (private facility):
  - 'Al Kausar Medicos, M A Jinnah Road, Karachi, (Private Facility):
    - o 'Carbamazepine- neurology: antiepileptics
    - 'Valproic acid OR valproate OR Depakine® neurology: antiepileptics
    - 'Diazepam (rectiole/ rectal suppository for epileptic attacks) neurology: benzodiazepines to treat acute attacks e.g. status epilepticus
    - 'Midazolam (i.m. injection for epileptic attacks) neurology: benzodiazepines to treat acute attacks e.g. status epilepticus'<sup>169</sup>

Back to Contents

<sup>&</sup>lt;sup>164</sup> Allahwala A and others, <u>Maple syrup urine disease...</u>, 21 January 2021

<sup>&</sup>lt;sup>165</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>166</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>167</sup> MedCOI, 6 August 2020

<sup>&</sup>lt;sup>168</sup> MedCOI, 6 August 2020

<sup>&</sup>lt;sup>169</sup> MedCOI, 6 August 2020

# 17.9 Ophthalmology (eyes)

- 17.9.1 Information on MedCOI in 2020 noted treatment in paediatric ophthalmology was available at:
  - 'AI Shifa Eye Trust near Ayub Park, Rawalpindi (private facility).'<sup>170</sup>

Back to Contents

# 17.10 Special Educational Needs (SEN) provision and care

- 17.10.1 MedCOI noted in 2020 responses that paediatric care such as special schooling was available at the following facilities:
  - 'Bahria Special Children School, PNS Karsaz, Karachi (private facility)
  - 'Umeed e Noor School, H-8/1, Islamabad, (private facility)<sup>171</sup>
  - 'Zainab House for Special Children, Jamshed Road, Karachi (private facility).'<sup>172</sup>

**Back to Contents** 

#### 17.11 Speech therapy

17.11.1 Referring to a child with special educational needs, a MedCOI response in 2020 noted that outpatient treatment and follow up by a speech therapist was available at Aga Khan University Hospital and Liaquat National Hospital, both private facilities in Karachi<sup>173</sup>.

Back to Contents

#### **18.** Palliative care

#### 18.1 Hospitals

18.1.1 A 2024 article on gaps in palliative care, authored by Manal H, Faisal A B, Salman R, Waqar M A of the Section of Palliative Medicine at Aga Khan University Hospital, Karachi, found that palliative care in Pakistan faced significant challenges due to limited availability and accessibility. Palliative care was often overshadowed by curative treatments, with only a few institutions offering services, mostly in the private sector. The report noted that:

'As per the statistics provided by the Atlas of Palliative Care in the Eastern Mediterranean Region, in Pakistan, there is an annual need for palliative care among 870,813 individuals. However, the available palliative care services are limited to just 16, resulting in a mere 0.01 palliative care services per 100,000 people. Only a small number of institutions in the nation currently offer formal palliative care services, and they are mostly in the private sector. There are also a few hospices sponsored by nonprofit or non-governmental organizations in Karachi, Hyderabad, and Rawalpindi. Five major tertiary care hospitals in Pakistan currently provide palliative care as a specialty multidisciplinary service, two of which are situated in Karachi. These hospitals are the Aga Khan University Hospital (AKUH) and The Indus

<sup>&</sup>lt;sup>170</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>171</sup> MedCOI, 2 December 2020

<sup>&</sup>lt;sup>172</sup> MedCOI, 6 August 2020

<sup>&</sup>lt;sup>173</sup> MedCOI, 6 August 2020

Hospital (TIH), as well as the Islamabad-based Shifa International Hospital (SIH) and the Shaukat Khanum Memorial Cancer Hospital and Research Center (SKMCHRC) in Lahore and Peshawar.<sup>174</sup>

#### Back to Contents

## 19. Pulmonology (lung diseases)

- 19.1.1 Lifeline Hospital, at, D-14 Shahrah-e-Sher Shah Suri North, Nazimabad, Karachi, Pakistan, a multispecialty private hospital<sup>175</sup> noted in a report published on 4 February 2024 entitled 'What is Pulmonology in Pakistan, Well Explained', that conditions treated by pulmonologists in Pakistan are:
  - 'Asthma
  - 'Chronic Obstructive Pulmonary Disease (COPD)
  - 'Pneumonia
  - 'Tuberculosis (TB)
  - 'Lung Cancer
  - 'Interstitial Lung Disease (ILD)
  - 'Sleep Disorders
  - 'Occupational Lung Diseases
  - 'Pulmonary Hypertension.'<sup>176</sup>
- 19.1.2 MedCOI responses in 2020 noted that the Aga Khan University Hospital, Karachi, and the Shifa International Hospital, both private facilities provided the following treatment for pulmonology, including bronchial asthma and tuberculosis (TB):
  - 'Inpatient, outpatient and follow- up by a tuberculosis specialist
  - 'Laboratory research: resistance test for tuberculosis.<sup>177</sup>
  - 'Laboratory research: sputum smear microscopy (tuberculosis)
  - 'Impatient, outpatient and follow- up by a pulmonologist<sup>178, 179</sup>
  - 'Medical devices pulmonology: CPAP therapy, maintenance and repair, and for home use [CPAP treatment, or continuous positive airway pressure therapy, is a treatment method for patients who have sleep apnoea. CPAP machines use mild air pressure to keep the airways open and are typically used by patients who have breathing problems during sleep<sup>180</sup>].
  - 'Medical devices pulmonology: oxygen therapy with device and nasal

<sup>175</sup> Lifeline Hospital, <u>Our story</u>, no date

<sup>&</sup>lt;sup>174</sup> Manal H and others, <u>Uncovering the Gaps of Palliative Care in Pakistan</u>, 2024

<sup>&</sup>lt;sup>176</sup> Lifeline Hospital, What is Pulmonology in Pakistan, Well Explained, 4 February 2024

<sup>&</sup>lt;sup>177</sup> MedCOI, 4 February 2020

<sup>&</sup>lt;sup>178</sup> MedCOI, 5 September 2020

<sup>&</sup>lt;sup>179</sup> MedCOI, 5 June 2019

<sup>&</sup>lt;sup>180</sup> Midlands Pulmonary, <u>CPAP Treatment</u>, no date

catheter

- 'Medical devices pulmonology: oxygen therapy with O2 pressure tank.'<sup>181</sup>
- 19.1.3 MedCOI responses in 2019 and 2020 noted that the following medication for tuberculosis was available at:
  - 'Al Kausar Medicos M A Jinnah Road, Karachi (private facility):
  - 'D Watson Chemist Blue Area, Islamabad (private facility):
    - o 'Isoniazid- infections: tuberculosis; first-line
    - o 'moxifloxacin hydrochloride: tuberculosis; second/ third line.<sup>182</sup>
    - o 'Clarithromycin- Infections: antibiotics
    - 'Ethambutol- Infections: Tuberculosis, leprosy
    - 'Rifabutin- Infections: Tuberculosis, leprosy.'<sup>183</sup>

# **Back to Contents**

# 19.2 Tuberculosis (TB)

19.2.1 The Pakistan Economic Survey 2022-23 referred to Pakistan's National TB Control Programme and noted that its TB care services included:

<sup>•</sup>... 1,743 diagnostics centres, 33 specialized centres for DRTB management, 361 GeneXpert sites for DRTB [Drug-Resistant TB], 44 TB HIV centres for management of co-infections and over 8,000 GPs are engaged in TB control program. The private sector has also been engaged to boost TB case finding and till date the TB treatment coverage is 339,256 with success rate of 94 percent and additional treatment of 2,881 cases of DRTB. Most recently, national TB control program has announced helpline number to guide TB patients and communities across the country to pursue advice and spread awareness on TB-related information.<sup>'184</sup>

Back to Contents

# 20. Renal (kidney) failure and dialysis

20.1.1 In a report published on 26 September 2023, the Aga Khan University Hospital stated that 'Online Hemodiafiltration (OL-HDF) is the most technologically advanced form of dialysis, now available at the Aga Khan University Hospital, Pakistan. It offers a more thorough and efficient removal of toxins from the body, particularly larger toxins and substances, as compared to conventional dialysis.

'OL-HDF is performed using a dedicated dialysis machine. Just like conventional dialysis, it is done three times a week with each session lasting 4 hours or as per your nephrologist's prescription.

<sup>6</sup>OL-HDF has certain advantages over the conventional dialysis therapies, making it the most optimal form of dialysis currently available. The combination of effective toxin removal and improved fluid balance means

<sup>&</sup>lt;sup>181</sup> MedCOI, 5 September 2020

<sup>&</sup>lt;sup>182</sup> MedCOI, 4 February 2020

<sup>&</sup>lt;sup>183</sup> MedCOI, 12 June 2019

<sup>&</sup>lt;sup>184</sup> Ministry of Finance, <u>Pakistan Economic Survey 2022-23</u> (pages 190 to 191), 2023

that patients on OL-HDF have an overall better sense of well-being. Other advantages are as follows:

- 'Improved chances of patient survival
- 'Significantly reduced tiredness and lethargy after dialysis
- 'Reduced inflammation in the body
- 'Better blood pressure control; lesser chances of blood pressure falling during dialysis
- 'Increased tolerance of fluid removal (ultrafiltration)
- 'Better bone health and strength
- 'Improved haemoglobin levels
- 'Reduced itching, skin rashes, and pain in legs, especially at night.'<sup>185</sup>

**Back to Contents** 

# 21. Sheltered housing, care homes and carer support

21.1.1 The Edhi Foundation<sup>186</sup> run by the help of volunteers,

'... has set up 18 homes all over Pakistan (seven homes are running at Karachi). As a whole, 8500 younger boys and girls including elder ladies and gents have been accommodated in 18 homes. Among them, are abandoned and orphan boys and girls, mentally retarded and physical disabled, as well as for the shelter-less and helpless male and female people are living in these exclusive Edhi homes. Besides, the tortured women in the aftermath of domestic violence also reside there [also see the Country Policy and Information Note on Pakistan: Women fearing gender-based violence].

'[A] Number of Edhi homes which have been established at different cities of Pakistan are stated here as—Karachi 7, Multan 1, Lahore 3, Islamabad 1, Peshawar 1, Quetta 1, and Chitral 1. The residents in the Edhi homes are numbered at 8500.'<sup>187</sup>

- 21.1.2 A 2019 MedCOI noted that geriatric care, psychiatric treatment (including for chronic psychotic patients), and long- term institutional around the clock care in sheltered housing was available at:
  - 'Edhi Homes, Sohrab Goth, Karachi (private facility).'188
- 21.1.3 The Holistic healthcare Services, a private company based in Lahore<sup>189</sup>, stated provision of care for relatives at home in Pakistan included:
  - Physiotherapy
  - Speech and Occupational Therapy (See <u>speech therapy</u>)
  - Assistant nurses

<sup>&</sup>lt;sup>185</sup> Aga Khan Hospital, <u>Online Hemodiafiltration: The Most Optimal...</u>, 26 September 2023

<sup>&</sup>lt;sup>186</sup> Edhi Foundation, <u>Home</u>, no date

<sup>&</sup>lt;sup>187</sup> Edhi Foundation, Edhi Homes and Orphanage Centres, no date

<sup>&</sup>lt;sup>188</sup> MedCOI, 28 January 2019

<sup>&</sup>lt;sup>189</sup> Holistic Healthcare Services, <u>Contact us</u>, no date
- Caregivers
- ICU (Intensive care unit) trained nurses
- Medical attendants
- Psychotherapists
- General Physicians
- Disabled care

Located at: Lahore, Islamabad, Faisalabad and Karachi<sup>190</sup>

Back to Contents

### 22. Speech and occupational therapy

- 22.1.1 The private company, Holistic Healthcare Services, offered speech and occupational therapy. Its Occupational Therapy (OT) support included:
  - 'Development of fine motor and gross motor skills
  - 'Development of cognitive skills that will result in better problem- solving abilities
  - 'Enhancing social skills and communication at different levels.'<sup>191</sup>
- 22.1.2 The same source added 'Our speech therapy services can treat a wide range of language and speech delays.'<sup>192</sup>

Back to Contents

<sup>190</sup> Holistic Healthcare Services, <u>Care for Every Situation</u>, no date

<sup>191</sup> Holistic Healthcare Services, <u>Speech and Occupational Therapists</u>, no date

<sup>&</sup>lt;sup>192</sup> Holistic Healthcare Services, Speech and Occupational Therapists, no date

# Annex A

## Availability of pharmaceutical drugs list cited by MedCOI

The following non-exhaustive A-Z list of drugs, cited by MedCOI, were noted as available in Pakistan, either in pharmacy or online (per dosage form/ number per box/ cost in Pakistan Rupees included, where given; out of pocket payment may be required):

## A-D

Acetylsalicylic acid<sup>193</sup>; Alendronate sodium (alendronic acid)<sup>194</sup>; Allopurinol<sup>195</sup>; Amitriptylin<sup>196</sup>; Amlodipine Norvasc®<sup>197</sup>; Aripiprazole<sup>198</sup>; Atorvastatin<sup>199</sup>; Azithromycin<sup>200</sup>; Betamethasone<sup>201</sup>; Bevacizumab<sup>202</sup>; Bisoprolol<sup>203</sup>; Budesonide<sup>204</sup>; Bumetanide<sup>205</sup>; Calcium carbonate<sup>206</sup>; Candesartan<sup>207</sup>; Captopril<sup>208</sup>; Carbasalate calcium<sup>209</sup>; Carbomer eye drops<sup>210</sup>; Carvedilol<sup>211</sup>; Cetirizine<sup>212</sup>; Chlortalidone<sup>213</sup>; Ciprofloxacin<sup>214</sup>; Citalopram<sup>215</sup>; Clarithromycin<sup>216</sup>; Clemastine<sup>217</sup>; Clozapine<sup>218</sup>; Colecalciferol (vitamin D supplements)<sup>219</sup>; Dapagliflozin<sup>220</sup>; Diazepam<sup>221</sup>; Diclofenac Voltral<sup>222</sup>; Doxazosin<sup>223</sup>;

### E-H

<sup>193</sup> MedCOI, 21 December 2019 <sup>194</sup> MedCOI, 16 May 2019 <sup>195</sup> MedCOI, 31 January 2020 <sup>196</sup> MedCOI, 28 February 2020 <sup>197</sup> MedCOI, 31 January 2020 <sup>198</sup> MedCOI. 21 March 2020 <sup>199</sup> MedCOI, 21 December 2019 <sup>200</sup> MedCOI, 31 January 2020 <sup>201</sup> MedCOI, 16 May 2019 <sup>202</sup> MedCOI, 21 May 2020 <sup>203</sup> MedCOI, 21 December 2019 <sup>204</sup> MedCOI, 16 May 2019 <sup>205</sup> MedCOI, 21 December 2019 <sup>206</sup> MedCOI, 16 May 2019 <sup>207</sup> MedCOI, 4 February 2020 MedCOI, 31 January 2020 <sup>208</sup> MedCOI, 4 February 2020 <sup>209</sup> MedCOI, 21 December 2019 <sup>210</sup> MedCOI, 21 December 2019 <sup>211</sup> MedCOI, 21 December 2019 <sup>212</sup> MedCOI, 16 May 2019 <sup>213</sup> MedCOI, 21 December 2019 <sup>214</sup> MedCOI, 31 January 2020 <sup>215</sup> MedCOI, 21 March 2020 <sup>216</sup> MedCOI, 31 January 2020 <sup>217</sup> MedCOI, 16 May 2019 <sup>218</sup> MedCOI. 21 March 2020 <sup>219</sup> MedCOI, 16 May 2019 <sup>220</sup> MedCOI, 16 April 2020 <sup>221</sup> MedCOI, 16 May 2019 <sup>222</sup> MedCOI, 31 January 2020 <sup>223</sup> MedCOI, 31 January 2020

Empagliflozin<sup>224</sup>; Enalapril<sup>225</sup>; Erythromycin<sup>226</sup>; Esomeprazole<sup>227</sup>; Escitalopram<sup>228</sup>; Etanercept<sup>229</sup>; Fluoxetine<sup>230</sup>; Fluticasone<sup>231</sup>; Fluvoxamine<sup>232</sup>; Formoterol<sup>233</sup>; Furosemide<sup>234</sup>; Gabapentin<sup>235</sup>; Gliclazide<sup>236</sup>; Golimumab<sup>237</sup>; Haloperidol<sup>238</sup>; Hydrochlorothiazide<sup>239</sup>; Hypromellose eyedrops<sup>240</sup>.

### I- L

Ibuprofen<sup>241</sup>; Insulin, premixed: aspart (rapid acting) and aspart protamine (intermediate acting) like Novomix® (diabetes: insulin injections; mix of intermediate and rapid acting)<sup>242</sup>; Insulin: long acting 24hr; insulin glargine like Lantus® (diabetes: insulin injections; long acting 24 hr – 100 units/ml-3ml cartridge)<sup>243 244</sup>; Insulin: rapid acting [2-5hr]; insulin aspart like Novorapid® (Diabetes: insulin injections; rapid acting [2-5 hr])<sup>245</sup>; Indometacin<sup>246</sup>; Infliximab<sup>247</sup>; Ipratropium<sup>248</sup>; Isoniazid<sup>249</sup>; Isosorbide dinitrate<sup>250</sup>; Isosorbide mononitrate<sup>251</sup>; Ketotifen fumarate eyedrops<sup>252</sup>; Lactulose<sup>253</sup>; Latanoprost<sup>254</sup>; Levofloxacin<sup>255</sup>; Levocetirizine<sup>256</sup>; Lisinopril<sup>257</sup>.

### M-P

Macrogol<sup>258</sup>; Magnesium hydroxide<sup>259</sup>; Metformin<sup>260</sup>; Metoprolol<sup>261</sup>; Morphine<sup>262</sup>;

<sup>224</sup> MedCOI, 16 April 2020 <sup>225</sup> MedCOI, 21 December 2019 <sup>226</sup> MedCOI, 31 January 2020 <sup>227</sup> MedCOI, 28 February 2020 <sup>228</sup> MedCOI, 21 March 2020 <sup>229</sup> MedCOI, 28 August 2019 <sup>230</sup> MedCOI, 21 March 2020 <sup>231</sup> MedCOI, 16 May 2019 <sup>232</sup> MedCOI, 21 March 2020 <sup>233</sup> MedCOI, 31 January 2020 <sup>234</sup> MedCOI, 4 February 2020 <sup>235</sup> MedCOI, 28 February 2020 <sup>236</sup> MedCOI, 21 December 2019 <sup>237</sup> MedCOI. 28 August 2019 <sup>238</sup> MedCOI, 29 June 2019 <sup>239</sup> MedCOI, 16 May 2019 <sup>240</sup> MedCOI, 21 December 2019 <sup>241</sup> MedCOI, 28 February 2020 <sup>242</sup> MedCOI, 21 December 2019 <sup>243</sup> MedCOI, 21 December 2019 <sup>244</sup> MedCOI, 25 July 2019 <sup>245</sup> MedCOI, 21 December 2019 <sup>246</sup> MedCOI, 28 August 2019 <sup>247</sup> MedCOI, 28 August 2019 <sup>248</sup> MedCOI, 16 May 2019 <sup>249</sup> MedCOI, 28 February 2020 <sup>250</sup> MedCOI, 21 December 2019 <sup>251</sup> MedCOI, 21 December 2019 <sup>252</sup> MedCOI, 21 May 2020 <sup>253</sup> MedCOI, 16 May 2019 <sup>254</sup> MedCOI, 26 January 2019 <sup>255</sup> MedCOI, 31 January 2020 <sup>256</sup> MedCOI, 16 May 2019 <sup>257</sup> MedCOI, 4 February 2020 <sup>258</sup> MedCOI, 21 December 2019 <sup>259</sup> MedCOI, 29 June 2019 <sup>260</sup> MedCOI, 21 May 2020 <sup>261</sup> MedCOI, 21 December 2019 <sup>262</sup> MedCOI, 26 January 2019

Moxifloxacin hydrochloride<sup>263</sup>; Naproxen<sup>264</sup>; Nebivolol<sup>265</sup>; Nifedipine<sup>266</sup>; Olanzapine<sup>267</sup>; Omeprazole<sup>268</sup>; Oxazepam<sup>269</sup>; Oxycodone<sup>270</sup>; Pantoprazole<sup>271</sup>; Paracetamol<sup>272</sup>; Paroxetine<sup>273</sup>; Povidone eye drops<sup>274</sup>; Pravastatin<sup>275</sup>; Prednisone<sup>276</sup>; Pregabalin<sup>277</sup>.

## Q-T

```
Quetiapine<sup>278</sup>; Ramipril<sup>279</sup>; Ranibizumab<sup>280</sup>; Ranitidine<sup>281</sup>; Risedronate sodium<sup>282</sup>; Risperidone<sup>283</sup>; Salbutamol<sup>284</sup>; Salmeterol + fluticasone<sup>285</sup>; Saxagliptin hydrochloride<sup>286</sup>; Sertraline<sup>287</sup>; Sodium bicarbonate (= sodium hydrogen carbonate)<sup>288</sup>; Sodium (natrium) polystyrene sulphonate<sup>289</sup>; Temazepam<sup>290</sup>; Terbutaline<sup>291</sup>; Timolol<sup>292</sup>; Timolol + brimonidine (combination)<sup>293</sup>; Tiotropium<sup>294</sup>; Tramadol<sup>295</sup>.
```

### U-Z

Venlafaxine<sup>296</sup>; Vildagliptin Galvus®<sup>297</sup>; Warfarin<sup>298</sup>, Zolpidem<sup>299</sup>.

<sup>263</sup> MedCOI, 28 February 2020
<sup>264</sup> MedCOI, 28 February 2020
<sup>265</sup> MedCOI, 31 January 2020
<sup>266</sup> MedCOI, 16 May 2019
<sup>267</sup> MedCOI, 21 March 2020
<sup>268</sup> MedCOI, 28 February 2020
<sup>269</sup> MedCOI, 16 May 2019
<sup>270</sup> MedCOI, 26 January 2019
<sup>271</sup> MedCOI, 28 February 2020
272 ModCOL 21 December 2010
<sup>273</sup> MedCOI, 21 March 2020
<ul> <li><sup>273</sup> MedCOI, 21 December 2019</li> <li><sup>273</sup> MedCOI, 21 March 2020</li> <li><sup>274</sup> MedCOI, 21 December 2019</li> <li><sup>275</sup> MedCOI, 21 December 2019</li> <li><sup>276</sup> MedCOI, 16 May 2019</li> <li><sup>277</sup> MedCOI, 28 February 2020</li> <li><sup>278</sup> MedCOI, 24 March 2020</li> </ul>
<sup>275</sup> MedCOI, 21 December 2019
<sup>276</sup> MedCOI, 16 May 2019
<sup>277</sup> MedCOI, 28 February 2020
<sup>278</sup> MedCOI, 21 March 2020
<sup>279</sup> MedCOI, 4 February 2020
<sup>280</sup> MedCOI, 21 May 2020
<sup>281</sup> MedCOI, 29 June 2019
<sup>282</sup> MedCOI, 16 May 2019
<sup>283</sup> MedCOI, 21 March 2020
<sup>284</sup> MedCOI, 31 January 2020
<sup>285</sup> MedCOI, 16 May 2019
<sup>286</sup> MedCOI, 16 April 2020
<sup>287</sup> MedCOI, 21 March 2020
<sup>288</sup> MedCOL 31 January 2020
<sup>289</sup> MedCOI, 31 January 2020
<ul> <li><sup>289</sup> MedCOI, 31 January 2020</li> <li><sup>290</sup> MedCOI, 26 January 2019</li> <li><sup>291</sup> MedCOI, 31 January 2020</li> <li><sup>292</sup> MedCOI, 26 January 2019</li> <li><sup>293</sup> MedCOI, 26 January 2019</li> </ul>
<sup>291</sup> MedCOI, 31 January 2020
<sup>292</sup> MedCOI, 26 January 2019
<sup>295</sup> MedCOL 26 January 2019
<sup>294</sup> MedCOI, 16 May 2019
<sup>295</sup> MedCOI, 21 December 2019
<sup>296</sup> MedCOI, 21 March 2020
<sup>297</sup> MedCOI, 16 April 2020
<sup>298</sup> MedCOI, 21 December 2019
<sup>299</sup> MedCOI, 28 November 2018
,

# Research methodology

The country of origin information (COI) in this note has been carefully selected in accordance with the general principles of COI research as set out in the <u>Common EU [European Union] Guidelines for Processing Country of Origin Information (COI)</u>, April 2008, and the Austrian Centre for Country of Origin and Asylum Research and Documentation's (ACCORD), <u>Researching Country Origin Information – Training Manual</u>, 2013. Namely, taking into account the COI's relevance, reliability, accuracy, balance, currency, transparency and traceability.

Each section has an 'updated' date up to which the COI included was published or made publicly available. These dates may vary from section to section. Any event taking place or report published after each section date will not be included in that section.

Sources and the information they provide are carefully considered before inclusion. Factors relevant to the assessment of the reliability of sources and information include:

- the motivation, purpose, knowledge and experience of the source
- how the information was obtained, including specific methodologies used
- the currency and detail of information
- whether the COI is consistent with and/or corroborated by other sources

Wherever possible, multiple sourcing is used and the COI compared and contrasted to ensure that it is accurate and balanced and provides a comprehensive and up-to-date picture of the issues relevant to this note at the time of publication.

The inclusion of a source is not an endorsement of it or any view(s) expressed.

Each piece of information is referenced in a footnote.

Full details of all sources cited and consulted in compiling the note are listed alphabetically in the <u>bibliography</u>.

# Terms of Reference

A 'Terms of Reference' (ToR) is a broad outline of the issues relevant to the scope of this note and forms the basis for the <u>country information</u>.

For this CPIN, the following topics were identified prior to drafting as relevant and on which research was undertaken:

- overview of the structure of the healthcare system including patient access to:
  - o public free or subsidised at point of entry
  - o private pay at point of entry
  - health insurance system private, public and community based insurance systems, cost and contributions
  - o non-government organisation (NGO) provision and assistance
  - costs to: consult a general practitioner, consult a specialist and receive treatment, contribute to an insurance scheme
- infrastructure and staffing
  - number, location and type of medical facility (and specialism) primary, secondary and tertiary
  - number and location in absolute and per head of population of nurses and doctors, including specialists
  - provide links to medical, dental and other healthcare practitioners, and hospitals
- pharmaceutical sector
  - o availability of <u>therapeutic drugs</u>
  - o accessibility of therapeutic drugs, cost and other factors affecting access
  - number and location of pharmacies
- specific <u>diseases/conditions</u> in alphabetical order including:
  - o cancer
    - national programme for control and treatment
    - availability of treatment: facilities, personnel and location
    - accessibility: cost of treatment and other factors affecting access, such as location of particular treatment centres
    - support in obtaining treatment from state, private or civil society sectors

[For each subsequent health condition research information as set out for cancer above. Note: some conditions may fit under more than one heading, for example, liver cancer]

- o blood and immune system conditions
- o cardiovascular conditions

- o Diabetes and other endocrinal, nutritional and metabolic conditions
- o digestive tract conditions
- $\circ$  eye conditions
- o gynaecological conditions
- o HIV/AIDS
- o kidney conditions
- o liver conditions, including hepatitis
- o mental health, behavioural and neurodevelopmental conditions
- o musculoskeletal conditions
- o oral and dental conditions
- neurological conditions
- o palliative care
- o paediatric conditions
- o respiratory conditions, including Tuberculosis
- $\circ$  skin conditions
- urological conditions

# Bibliography

## Sources cited

Abdullah S, Saleem Z and Godman B, <u>Coping with increasing medicine costs</u> <u>through greater adoption of generic prescribing and dispensing in Pakistan as an</u> <u>exemplar country</u> Expert Review of Pharmacoeconomics & Outcomes Research, 24(2), 167–170., 9 November 2023. Last accessed: 13 May 2024

Aga Khan University Hospital,

About Us, Crossed the Age of 60?.Consult our Geriatricians, no date. Last accessed: 23 April 2024

Home Health Services, no date. Last accessed: 23 April 2024

Obstetrics and Gynaecology Services, no date. Last accessed: 25 April 2024

Section of Orthopaedic Surgery, no date. Last accessed: 25 May 2024

Online Hemodiafiltration: The Most Optimal Treatment for Kidney Patients, 26 September 2023. Last accessed: 26 April 2024

Breast Tumour/ Breast Cancer, no date. Last accessed: 26 April 2024

Prostate Cancer, no date. Last accessed: 26 April 2024

Aga Khan University Medical College, Pakistan, <u>Section of Gastroenterology</u>, no date. Last accessed: 23 April 2024

Allahwala A, Ahmed S and Afroze B, <u>Maple syrup urine disease: magnetic</u> <u>resonance imaging findings in three patients</u>, 21 January 2021. Last accessed: 12 April 2024

Alvi M H, Ashraf T, Kiran T, Iqbal N, Gumber A, Patel A and Husain N, <u>Economic</u> <u>burden of mental illness in Pakistan: an estimation for the year 2020 from existing</u> <u>evidence</u>, August 2023. Last accessed: 23 April 2024

Awan U A, Guo X, Khattak A A, Hassan U and Khan S, <u>Economic crises and cancer</u> <u>care in Pakistan—timely action saves lives</u>, 17 February 2024. Last accessed: 9 May 2024

Begum Haseena Memorial Hospital Complex (BHMC), <u>Obstetrics and gynaecology</u>, no date. Last accessed: 25 April 2024

Bertelsmann Stiftung, <u>BTI Pakistan Country Report 2022</u>, 23 February 2022. Last accessed: 2 January 2024

Bioflex Pakistan,

Home, no date. Last accessed: 24 April 2024

Musculoskeletal Pain Disorders and Treatment, 4 June 2020. Last accessed: 24 April 2024

Cleveland Clinic, Endocrinologist, no date. Last accessed: 17 April 2024

Devex, About- DOST Welfare Foundation, no date. Last accessed: 24 April 2024

Diabetes Association of Pakistan, <u>About DAP</u>, no date. Last accessed: 19 December 2023

The Diabetes Centre, (website). Last accessed: 19 December 2023

Edhi Foundation,

Home, no date. Last accessed: 25 April 2024

Edhi Homes and Orphanage Centres, no date

European Union Agency for Asylum (EUAA), <u>Country of Origin Information</u>, no date. Last accessed: 24 May 2024

The Express Tribune, <u>Cancer treatment out of reach for the poor</u>, 17 April 2024. Last accessed: 9 May 2024

Forman R, Ambreen F, Shah S S A, Mossialos E and Nasir K, <u>Sehat sahulat: A</u> <u>social health justice policy leaving no one behind</u>, 18 October 2022. Last accessed: 22 May 2024

Government of Pakistan, Ministry of Finance,

Pakistan Economic Survey 2019-20, 2020. Last accessed: 19 December 2023

Pakistan Economic Survey 2022-23, 2023. Last accessed: 23 May 2024

Graana, <u>Top Private and Government Hospitals in Islamabad</u>, 27 May 2022. Last accessed: 11 April 2024

Health Direct, <u>Thyroid function tests</u>, no date. Last accessed: 17 April 2024

Holistic Healthcare Services,

Contact us, no date. Last accessed: 26 April 2024

Care for Every Situation, no date. Last accessed: 26 April 2024

Speech and Occupational Therapists, no date. Last accessed: 26 April 2024

International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH), <u>Official Website</u>, no date. Last accessed: 11 April 2024

International Trade Administration (ITA), <u>Healthcare Technologies Resource Guide</u>, <u>Pakistan</u>, no date. Last accessed: 4 January 2023

Islamabad Rehab Clinic (IRC), <u>Home</u>, no date. Last accessed: 24 April 2024

Javed A, Khan M N S, Nasar A and Rasheed A, <u>Mental healthcare in Pakistan</u>, 2020. Last accessed: 13 May 2024

Lifeline Hospital,

Our story, no date. Last accessed: 26 April 2024

What is Pulmonology in Pakistan, Well Explained, 4 February 2024. Last accessed: 26 April 2024

Manal H, Faisal A B, Salman R and Waqar M A, <u>Uncovering the Gaps of Palliative</u> <u>Care in Pakistan</u>, 2024. Last accessed: 27 June 2024

Marham, <u>Home, All Hospitals in Pakistan</u>, no date. Last accessed: 11 April 2024 Mayo clinic, <u>Complete blood count (CBC)</u>, no date. Last accessed: 17 April 2024 MedCOI, 19 February 2020. Last accessed: 19 February 2020
4 February 2020. Last accessed: 19 February 2020
31 January 2020. Last accessed: 26 February 2020
21 December 2019. Last accessed: 19 February 2020
29 June 2019. Last accessed: 19 February 2020
4 September 2018. Last accessed: 19 February 2020
2 February 2019. Last accessed: 20 August 2020
21 June 2018. Last accessed: 21 August 2020
28 November 2019. Last accessed: 24 August 2020
6 August 2020. Last accessed: 24 August 2020
12 June 2019. Last accessed: 25 August 2020
16 April 2020. Last accessed: 26 August 2020
21 March 2020. Last accessed: 27 August 2020

Medline Plus, <u>IGF-1 (Insulin- like Growth Factor 1) Test</u>, Last updated 10 August 2021. Last accessed: 17 April 2024

Midlands Pulmonary, CPAP Treatment, no date. Last accessed: 25 April 2024

Muhammad Q, Eiman H, Fazal F, Ibrahim I and Gondal M F, <u>Healthcare in Pakistan:</u> <u>Navigating Challenges and Building a Brighter Future</u>, 10 June 2023. Last accessed: 24 April 2024

National Epilepsy Centre, <u>Improve Quality of Life of People with Epilepsy</u>, no date. Last accessed: 22 April 2024

National Health Service (NHS),

Maple syrup urine disease, no date. Last accessed: 12 April 2024

ADHD, no date. Last accessed: 24 April 2024

PTSD, no date. Last accessed: 24 April 2024

OCD, no date. Last accessed: 24 April

NGO Base,

Home, no date. Last accessed: 9 January 2024

NGOs and Charities working for Health in Pakistan, no date. Last accessed: 9 January 2024

NGO Source,

Who we are, no date. Last accessed: 26 April 2024

Supporting Pakistani NGOs, 8 September 2022. Last accessed: 26 April 2024

Ochani S, Athar F B, Nazar MW, Rani S, Ochani K, Hasibuzzaman, Kaleem U, <u>Drug</u> <u>overdose in Pakistan, a growing concern; A Review</u>, September 2023. Last accessed: 24 April 2024 Oladoc,

<u>200 Best Gynaecologists in Islamabad</u>, no date. Last accessed: 25 April 2024 <u>83 Best Orthopaedic Surgeons in Islamabad</u>, no date. Last accessed: 25 April 2024

Oxford Policy Management, <u>Social Health Protection Initiative in Pakistan</u>, no date. Last accessed: 16 April 2024

Pakistan Forward,

Home, no date. Last accessed: 24 April 2024

Pakistan's 1<sup>st</sup> rehab centre for "ice" addicts opens in Khyber Pakhtunkhwa, 15 March 2019. Last accessed: 24 April 2024

Radio Free Europe/Radio Liberty (RFE/RL),

About, no date. Last accessed: 24 April 2024

<u>Crystal Meth Addiction "Rapidly Spreading" in Pakistan</u>, 20 May 2023. Last accessed: 24 April 2024

Samad Z and Hanif B, <u>Cardiovascular Diseases in Pakistan: Imagining a Post</u> <u>pandemic, Post conflict Future</u>, 24 April 2024. Last accessed: 16 April 2024

Shalamar Hospital, <u>Neurology</u>, no date. Last accessed: 22 April 2024

Shaukat Khanum Memorial Trust, <u>Breast Cancer in Pakistan- Top Surgeon Answers</u> <u>Your Questions</u>, no date. Last accessed: 26 April 2024

Shifa International Hospital,

Palliative Care, no date. Last accessed: 19 December 2023

Home- Gastroenterology, no date. Last updated: 23 April 2024

<u>Epilepsy Treatment through Advanced Neurosurgical Procedure</u>, Last updated: 2023. Last accessed: 22 April 2024

Geriatric Care Services, no date. Last accessed: 23 April 2024

Department of Obstetrics and Gynaecology, no date. Last accessed: 25 April 2024

Orthopaedic Surgery, no date. Last accessed: 25 April 2024

Latest Advancements in Breast Cancer..., no date. Last accessed: 26 April 2024

Shifa Breast Clinic, no date. Last accessed: 24 April 2024

Prostate Cancer Treatment: What are Your Options, 13 December 2021. Last accessed: 26 April 2024

Shifa Tameer-e-Millat University, <u>Department of Clinical Psychology</u>, no date. Last accessed: 24 April 2024

Tibi Sahulat, Doctor's directory, no date. Last accessed: 23 April 2024

UK Government, Foreign, Commonwealth and Development Office (FCDO), <u>List of</u> <u>English- speaking doctors in Pakistan</u>, Updated 6 September 2023. Last accessed: 11 April 2024 UrduPoint Network, <u>List of Hospitals and Clinics Businesses in Pakistan</u>, no date. Last accessed: 4 January 2023

Waqar M A, Mehboob T, Tabassam N, Nawaz M S, Foaad M, Riaz M, Qureshi A, Waqas M, Ilyas D and Saleem M, <u>Novel Approaches for Treatment of Epilepsy</u>, 31 August 2023. Last accessed: 22 April 2024

What Clinic, Orthopaedic Clinics in Pakistan, no date. Last accessed: 25 April 2024

World Health Organisation (WHO)/ Eastern Mediterranean Region Organisation (EMRO),

Pakistan: Health Service Delivery, no date. Last accessed: 4 January 2024

Health system strengthening, no date. Last accessed: 11 April 2024

Expanded Programme on Immunization, no date. Last accessed: 11 April 2024

Maternal, newborn and child health, no date. Last accessed: 11 April 2024

Xe, <u>Currency converter</u>, no date. Last accessed: 24 May 2024

**Back to Contents** 

### Sources consulted but not cited

British Asian Trust, <u>Prioritising mental health in Pakistan</u>, 7 October 2022. Last accessed: 23 April 2024

Helping Hand for Relief and Development, <u>Karachi Institute of Neurological Diseases</u> and Rehabilitation (KIND-R), no date. Last accessed: 22 April 2024

World Health Organisation (WHO) Global Database of National Essential Medicines List (EML), <u>Global Essential Medicines</u>, no date. Last accessed: 12 April 2024

# Version control and feedback

### Clearance

Below is information on when this note was cleared:

- version **3.0**
- valid from 8 July 2024

### Official – sensitive: Not for disclosure – Start of section

The information on this page has been removed as it is restricted for internal Home Office use.

### Official – sensitive: Not for disclosure – End of section

Back to Contents

### Changes from last version of this note

Updated country information

**Back to Contents** 

### Feedback to the Home Office

Our goal is to provide accurate, reliable and up-to-date COI. We welcome feedback on how to improve our products. If you would like to comment on this note, please email the <u>Country Policy and Information Team</u>.