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In April and July 2021, two hospital fires in COVID-19 wards in Baghdad and Nasiriya left 174 Iraqi citizens dead and 210 injured. The deadly blazes made headlines across the world, but for many Iraqi citizens, the fires represented the culmination of a failed pandemic response and years of decline in the healthcare sector. Why did these deadly fires transpire? In the media, journalists highlighted a lengthy series of contributing factors leading to the tragedy, including flimsy and highly flammable construction materials, the explosion of mismanaged oxygen tanks, electrical shorts, and a lack of fire safety equipment.1 Underlying these defects, ordinary Iraqis pointed to a deeper cause: pervasive corruption in the healthcare sector. Corruption, they alleged, explained why it was that an oil-rich country had not built and maintained safe and secure health facilities. These claims echoed the discourse of the Tishreen protests that erupted across Baghdad and the South in 2019. In protest after protest, demonstrators alleged that political parties consolidating power in the wake of the US-led invasion had preyed upon Iraq's public and private sectors alike, engaging in forms of graft that gradually allowed the parties to shore up support of loyalists while also undermining equitable access to

the very public institutions and private markets they controlled. Drawing the link between corruption and health deficits, groups of cancer patients entered Tahrir Square alongside other Tishreen protesters and carried signs that read, "Corruption stole my treatment." With the deadly fires in COVID-19 wards during recent months, such sentiments have again surfaced into public view.

How should scholars and policymakers make sense of these claims? Previous research has argued that corruption in Iraq is not best understood as an anomalous set of illicit transactions but rather as a structural feature of the fragmented post-2003 political order,² Power is contested among a handful of political parties and their affiliated armed groups, each of which dominates the budgetary allocations, employment, and contracting within one or more ministries. Quality of service is sacrificed for the sake of sustaining practices of graft that feed revenues into parties' patronage networks.³ While such practices pervade all levels of the government in addition to private markets, corruption takes on distinct forms and comes with particularly high stakes in the healthcare sector. The unraveling of Iraq's once renowned healthcare system due to US-led

¹ Arraf J. Hospital Fires Outrage Iraqis, but They See Little Hope for Change. New York Times. 17 Jul 2021. www.nytimes.com/2021/07/17/world/middleeast/hospital-fires-outrage-iraqis-but-they-see-little-hope-for-change.html. Accessed 6 Oct 2021.

Toby Dodge, Renad Mansour, "Politically sanctioned corruption and barriers to reform in Iraq," Research Paper, Chatham House, June 17, 2021, https://www.chathamhouse.org/2021/06/politically-sanctioned-corruption-and-barriers-reform-iraq/01-introduction.

³ Ibid

wars as well as UN sanctions has been well-documented in medical and social science studies^{4,5} but comparatively little attention has been paid to the ways in which systemic corruption – arguably the most corrosive and enduring legacy of these wars – presents uniquely damaging consequences in the healthcare sector.

This preliminary paper looks to the tragic phenomenon of mass-casualty hospital fires in Iraq's COVID-19 wards to kickstart a larger policy-oriented conversation on the political drivers, key mechanisms, and human costs of corruption in the healthcare sector. The research is

based on a literature review as well as qualitative interviews with Iraqi doctors (10), Iraqi government health officials (5), researchers and engineers specializing in hospital fire safety (3) and COVID-19 patients and their families (20) in both Federal Iraq and the Kurdish region (38 interviews total). Broadly speaking, the research contends that political parties in control of the health-care system compromise the safety and efficacy of both public and private hospitals by systematically evading quality controls and maximizing profits from medical supply chains at all costs.

WITHIN THIS THEME, THE PAPER MAKES THREE ARGUMENTS:



While politically sanctioned corruption is pervasive in Iraq, it is particularly dangerous within the healthcare system due to the life and death stakes of failed procurements. Iraq's hospital fires were not flukes; corruption makes such incidents inevitable.

Timing in medical procurements is everything, particularly in high-risk wards such as those utilized for COVID-19 isolation where the line between life and death is exceptionally thin. Corruption misaligns procurements with identified needs and lengthens the timespan of delivery, upending the promptness required to maintain high-risk healthcare facilities. The life-and-death stakes of medical corruption were brought into full view in the wake of the two tragic hospital fires. COVID-19 isolation wards leave little margin for error in terms of fire safety. The unusually high concentration of ventilators in COVID-19 wards presents a constant risk for oxygen accumulation in the air (rendering clothes, hospital equipment, and even fire-resistant material flammable); moreover, high ventilator usage contributes to the over-

loading of electrical systems and overheating of medical devices. In sum, COVID-19 wards bring together the potential for excess oxygen and excess energy ¬— a combustive combination. Fires in oxygen-rich conditions spread exponentially faster than those in typical oxygen conditions, making it difficult for hospital personnel to stifle such blazes and even harder for patients to escape, regardless of whether fire safety equipment is present. These risks are essentially unmanageable in systematically neglected hospitals such as those in Iraq, where defects in electrical systems and oxygen distribution are rarely reported and seldom corrected with the speed required. Corruption introduces inefficiencies and disruptions in the supply chain that render life-saving iterative maintenance next to impossible.

⁴ Omar Dewachi, Mac Skelton, Vinh-Kim Nguyen, et al, "Changing therapeutic geographies of the Iraqi and Syrian wars," *The Lancet* 383 no. 9915 (Jan. 20, 2014): 449-457, www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62299-o/fulltext.

⁵ Paul C. Webster, "Iraq's health system yet to heal from ravages of war," *The Lancet* 378 no. 9794 (Sept. 3, 2011): 863-866, www.thelancet.com/journals/lancet/article/PIISo140-6736(11)61399-8/fulltext.



The tendency of health officials to blame families for the fires (and for other problems in the healthcare system) is rooted in a fundamental misunderstanding of how ordinary Iraqis navigate and respond to medical corruption.

After the two fires, government officials directed blame towards patients' families for overcrowding hospitals, smoking, and for bringing privately sourced oxygen tanks into the hospital despite entreaties from management. The irony of all the unhelpful insinuations about the supposed misbehaviors of family members within hospitals is that these very same families have, in most instances, spent the preceding days doing everything they can to avoid hospitals altogether. In interviews with COVID-19 patients and family caregivers, respondents explained how these strategies of avoidance were a result of "administrative corruption" and "corruption by the [political] parties" in the medical system. Fearful of hospitals, caregivers of COVID-19 patients often procured oxygen tanks in markets and set up home-based care. In most cases, such patients remained at home for the duration of the illness. But if patients reached a critical state, families described finally rushing to hospitals with their existing apparatus of home-based care (including an oxygen tank) in tow. They presumed that the medical supply chain discussed above to be unreliable and mired in corruption. Oxygen supply and other hospital provisions could be cut at any moment. In other words, family members acting as caregivers in Iraqi hospitals view their role first and foremost as one of providing protection from shortages and dangers in the hospital rather than as mere companions to patients undergoing the treatment process. Mindful of these caregivers' hyper-protective posture and their anticipation of shortages, one can easily understand why a doctor's advice about the dangers of relying upon extra privately sourced oxygen tanks would fall on deaf ears.



Privatization will not solve Iraq's problems with corruption and the broader healthcare crisis. Both private and public medical facilities are subject to the same (political) forces.

Private medicine is already a pervasive reality in Iraq, but it has not developed into an independent and advanced sphere of medical practice. Private medical services, markets and products are controlled by the very same political actors that dominate the public sector. In interviews conducted for this paper, ordinary Iraqis expressed distrust towards both sectors with nearly equal vitriol. At the level of everyday care, there is no longer a meaningful distinction between the so-called "public" and "private" sectors. Systematically neglected government hospitals offer unreliable services that must be shored up repeatedly in a private market that offers only sporadically better services for cash. Iraqi patients

distrustful of both private and public options in Iraq often sell homes, properties, and cars to seek treatments in neighboring countries. When the Ministry of Health (MoH) made the decision to confine COVID-19 testing and treatment to specific public facilities, the directive generated mass confusion in a population that for years had grown accustomed to compensating for a lack a trust by checking multiple providers (public, private, and international) for second, third and fourth opinions. Iraq's healthcare system broadly defined – including both public and private elements – buckled under the pressure of COVID-19 and, in April and June of 2021, quite literally went up in flames.



FIRE HAZARDS IN COVID-19 WARDS: A GLOBAL PROBLEM

The April and July 2021 hospital fires in Nasiriya and Baghdad left hundreds dead, adding insult to injury for a medical system that had already buckled under the weight of the COVID-19 pandemic. Understanding why and how these disasters transpired will require a broader look at the phenomenon of hospital fires across the globe in the context of the pandemic. While no other country has witnessed such high fire-related death tolls to date, there has nonetheless been a global increase in calamitous hospital fires since the start of the pandemic. International media have reported twice as many hospital fires during the first 14 months of the pandemic than in the ten preceding years. Major fires in Turkey, Romania, and Egypt have claimed the lives of dozens of COVID-19 patients.⁶

What is the linkage between COVID-19 and fire risks? The first major hazard is oxygen accumulation. With so many COVID-19 diagnosed patients requiring oxygen, hospitals around the world experienced a sudden

increase in the use of ventilators. An uptick in ventilator use has introduced the risk that oxygen saturation in the air will reach dangerous levels – levels that pose a fire hazard. While oxygen itself is not flammable, a higher-than-normal concentration level in the air lowers the amount of energy needed for other materials to ignite more easily; sundry material in hospitals such as hair, plastic tubes, and bed linens are thus rendered much more flammable. Fires in oxygen-rich conditions spread exponentially faster than those in typical oxygen conditions, making it difficult for hospital personnel to stifle such blazes and even harder for patients and their family members to escape.

A second hazard is that concentrated and prolonged use of ventilators can overload a hospital's electrical system, leading to electrical shorts and errant sparks. Ventilators and other electrical equipment can themselves overheat under the pressure of over-usage, particularly if they are older models or inadequately maintained. Even tiny

⁶ Maureen Heraty Wood, Mark Hailwood, Konstantinos Koutelos, "Reducing the risk of oxygen-related fires and explosions in hospitals treating Covid-19 patients," Process Safety and Environmental Protection, 153 (Sept. 2021): 278-288.

⁷ Ibid

⁸ According to Wood et al. (2021), this accumulation does not necessarily require a leak in the oxygen supply. Normal oxygen leakages from nostril tubes and the sides of masks can accumulate to elevated levels in confined areas with large numbers of patients on ventilators.

sparks of combustion in electrical wiring can ignite a furious flame in oxygen-rich conditions. In short, COVID-19 wards bring together new sources of oxygen with new sources of energy – a recipe for fire disasters if appropriate measures are not taken.9

WHY FIRE RISKS ARE LEFT UNADDRESSED IN IRAO

Modernized hospitals take two important measures (among others) to mitigate these risks. First, they control and tightly manage the oxygen supply. Oxygen is provided centrally through a single distribution system instead of relying on canisters. Second, they install and vigorously maintain updated electrical systems and electrical devices. In older or under-resourced hospital facilities where the oxygen supply and electrical infrastructure are poorly maintained, fire risks can quickly accumulate.10 Baghdad's Ibn al-Khateeb Hospital, site of the April 2021 fire, was built in 1962 as a military hospital and has never been retrofitted to meet modern safety requirements for ventilation and electrical integrity. Oxygen supply was provided through canisters, and fear of shortages in the hospital stock prompted patients to bring their own." Nasiriya's Imam al-Hussein Teaching Hospital was recently constructed in the face of unprecedented capacity pressures of incoming COVID-19 patients, but its wards were haphazardly assembled with little attention paid to the most basic standards of safety. Government officials admitted that the two hospitals were neither constructed nor maintained according to safety standards, and that risks were left unresolved. A leak in the Nasiriya hospital's oxygen supply and other structural vulnerabilities were identified in a routine engineering report months before the incident, but no action was taken.¹²

Was this lack of action a product of mere neglect, or was it plausibly linked to intentional, politically-sanctioned corruption? The answer may lie somewhere in between, but neglect is itself shaped by the political economy of healthcare. By law and policy, monitoring procedures at the hospital level are formally in place. Buildings in Iraq are supposed to undergo routine checks of electricity, water pipes, and ventilation systems, but such safety protocols are only selectively applied due a mixture of mismanagement and more systemic evasions that protect the vested economic and political interests involved. One hospital director reflected upon the systemic nature of this evasion of standards and the implications for procurements: "Any building should have a number of inspections to ensure the safety of pipes, insulation, electricity, and so on. But keeping up with such standards would be very costly to, you know, the parties, and so all of this can easily be circumvented in Iraq."13 In some cases, medical professionals serving in public hospitals are explicitly instructed by management not to report malfunctioning or broken equipment.14 Evasion of safety standards and quality controls is the first link in a broader chain of corruption that upends the precision required in medical supply chain.

SOURCES OF MEDICAL CORRUPTION: THE BIGGER (POLITICAL) PICTURE

Corruption in the healthcare sector is not unique to the post-2003 era. Corruption first became rampant during the harsh UN Sanctions of the 1990s. With the complicity of actors tied to the regime, widespread deprivation spawned elaborate black markets that preyed upon expensive public medical equipment. After 2003, corruption took on new forms and extended across new mar-

- 9 Wood et al. "Reducing the risk."
- 10 Ibid
- In most COVID-19 wards in Iraq, centralized oxygen supply is either spotty or non-existent, which means that hospitals rely upon oxygen canisters. Because procurements of canisters are also unreliable and have in some reported instances run out, patients and their families often bring in their own and administer them, exponentially increasing the potential for accidents.
- 12 Arraf, "Hospital Fires Outrage Iraqis."
- 13 Phone interview with hospital director by the author, July 15, 2021.
- 14 "Iraqis blame hospital fire on mismanagement and corruption," *France* 24, April 25, 2021, <u>www.france24.com/en/live-news/20210425-iraqis-blame-hospital-fire-on-mismanagement-and-corruption</u>.

kets. Emerging political parties and their armed wings took full control of the public procurement process for medical devices, pharmaceuticals, and facility maintenance, in addition to the growing private medical market. Today, public contracts are awarded to businesses with close ties to the political entities controlling the Ministry of Health. Profits are often inflated either by overvaluing the contract, under-delivering the service/ product, or both. The parties and their affiliates maximize profits by evading the kinds of quality controls and safety standards that prevent fires.15 After the second hospital blaze, one media report linked the lack of medical safety equipment in the Nasiriya hospital to the fact that "political parties routinely siphon vast sums from the country's health budget through corrupt contracts that either deliver cut-rate services or do not deliver [services] at all."16 The "state" does not control healthcare; political parties do.

What are the mechanisms that allow medical corruption to sustain itself? Interviews with medical professionals working in both public and private facilities in Federal Iraq and the Kurdistan Region of Iraq (KRI) repeatedly pointed to the problem of quality control evasion. One health professional involved in both the public and private pharmaceutical supply noted:

I've seen it with my own eyes. Sometimes we knew that the medicine going into the private pharmacies or public hospitals were nearly expired or of extremely low quality. Quality controls at borders that are designed to guarantee the safety of medications, and the suitability of medical equipment, are ignored to protect the profits of well-connected importers who would stand to lose if their shipments were repeatedly subject to scrutiny.¹⁷

With both the supply-chain and quality-control mechanisms designed to police it under the control of powerful political interests, pharmaceutical quality is nearly always suspect. This is especially true in the generic drug market where there is often an absence of the kinds of safety and quality tests that major brand-named pharmaceutical companies practice internally.¹⁸

The specific political actors involved are major players. Administrative control of the Ministry of Health (MoH) in Baghdad has formally changed hands a few times among political parties at the ministerial level in the post-invasion era, but the MoH has been dominated in practice by a particular political faction whose control over midand senior-level officials across the Ministry renders the Minister's power conditional at best. The party enjoys broad influence over the state-owned pharmaceutical company (KIMADIA) and private vendors that furnish hospitals with medical devices, oxygen tanks, drugs, and other medical necessities. A similar dynamic also holds in the Kurdistan Region of Iraq (KRI), where specific affiliates of the two dominant parties firmly control the healthcare procurement process, pharmaceutical markets, and quality controls.

Instead of responding to identified needs and hazards in medical facilities, procurements are orchestrated to maximize the profits of the ruling parties and affiliated businesses. Sometimes, this means that less critical (but highly expensive) drugs are available, whilst very critical (but less expensive) drugs are scarce. Abundance and scarcity of life-saving medicines and equipment track along the dictates of vested interests rather than actual medical needs. While such practices exist across sectors, the stakes of corruption are uniquely high in medicine. The line between life and death is thin in all hospitals, and especially in COVID-19 wards, where a poorly maintained medical device or a worn-down oxygen tank is all it takes to ignite a fire.

Muhammed Sabah, "Mafias controlling pharmaceutical contracts force the health minister to submit his resignation for the second time," Arabic, *Al-Mada Paper*, Sept. 15, 2019, www.almadapaper.net/view.php?cat=221374.

Louisa Loveluck, Mustafa Salim, Bryan Pietsch, "Inferno kills more than 90 in Iraqi coronavirus hospital," Washington Post, July 13, 2021, www.washingtonpost. com/world/2021/07/13/nasiriya-covid-hospital-fire-iraq/.

¹⁷ Interview with pharmaceutical health professional by the author, Sulaymaniyah, August 15, 2021.

¹⁸ Ibid.



ENTER WITH CAUTION:

How Iraqi Families Navigate Public & Private Medicine

After the fires, certain health officials explicitly directed blame towards patients and their families. In Nasiriya, the hospital's deputy director claimed that a patient's relative handled a leaking canister with oily hands. Other officials pointed to general misbehaviors such as cooking, smoking, and overcrowding. These kinds of accusations were nothing new. From the beginning of the pandemic, Iraqi COVID-19 patients and particularly their family members have been under the microscope. Ordinary Iraqis were criticized by government officials and the media for avoiding the state's quarantine procedures and testing regime. The population was unfairly depicted as uneducated and culturally backward, ignoring the fact that research has shown that Iraqis are not medically illiterate but rather they are distrusting of healthcare due to the war-induced deterioration of care. 20

Studies of the post-2003 medical sector detail how Iraqis across the country became distrustful of the war-torn healthcare system to the point that, from 2006 onward, they increasingly voted with their feet and sought high-cost treatments in neighboring countries such as Lebanon and

Turkey.²¹ Pervasive shortages in public medical stocks forced patients to procure medications in private pharmacies. For many Iragis, the public sector was experienced as a mere waiting room in which doctors would make referrals to private hospitals in Iraq or abroad, actions which could result in catastrophic healthcare expenditures.²² The bottom line is that the post-2003 era has shifted the burden of healthcare from the state to the population. To the extent that "public" healthcare does remain, it is deeply intertwined with private medical markets in Iraq and across borders. The travel restrictions associated with the pandemic effectively removed the release valves in the system. Iraqis could not travel to Lebanon or Turkey for COVID-19 treatments, and nor could they resort to the normal mixture of public and private healthcare options locally. By ministerial edict, care for COVID-19 patients was to be exclusively administered in public hospitals. Iraqi families then had a choice: they could receive care for COVID-19 at home, or they could place the lives of loved ones in the hands of a public healthcare system which they perceived as being mired in corruption and effectively inoperable on its own. Drawing on interviews

¹⁹ Renad Mansour, Mac Skelton, Abdulameer Mohsin Hussein, "COVID-19: Assessing Vulnerabilities and Impact on Iraq," The Royal Institute of International Affairs, Chatham House, April 7, 2020, www.chathamhouse.org/2020/04/covid-19-assessing-vulnerabilities-and-impacts-iraq.

²⁰ Mac Skelton, "The Long Shadow of Iraq's Cancer Epidemic and COVID-19," *Middle East Report*, Middle East Research and Information Project, 297 (Winter 2020), https://merip.org/2020/12/the-long-shadow-of-iraqs-cancer-epidemic-and-covid-19-297/.

²¹ Dewachi et al, "Changing therapeutic geographies."

²² Mac Skelton, Raafat Alameddine, Omran Saifi, et al, "High-Cost Cancer Treatment Across Borders in Conflict Zones: Experience of Iraqi Patients in Lebanon," JCO Global Oncology, 6 (Jan. 10, 2020): 59-66.

with patients and their family members, the objective of this section is to understand the COVID-19 treatment experience – particularly hospital-based care – from the perspective of patients and their families.

HOSPITAL AVOIDANCE AS A SURVIVAL STRATEGY

Perhaps the most common and simultaneously alarming finding in the data is the extent to which COVID-19 patients and families have engaged in active hospital avoidance as a care-seeking strategy. It is not simply that patients refused to go to hospitals for COVID-19 treatments; many engaged in an elaborate series of preventative practices to remove any possibility that they might have to enter a medical facility at all. Patients and families fully understood that oxygen therapy, a critical component of treatment for serious COVID-19 disease, typically forces hospital visits. Consequently, the local trade in oxygen tanks witnessed an unprecedented boom as family members and friends of COVID-19 patients purchased multiple tanks to cover both immediate and long-term needs for oxygen within the confines of their homes. One COVID-19 patient, a 22-year-old from Baghdad named Samir, explained:

I'm from Baghdad but I got COVID in Erbil where I study. I slowly felt symptoms. The first day I was fine, but the second day is when it hit me, and my fever reached 40°C. I am a shisha- and vapesmoker and I couldn't breathe, but I knew it wasn't from smoking. My parents warned me not to go to a hospital. My dad said, 'I know the hospitals in Erbil and in Baghdad too, and they aren't good.' Especially in the quarantine hospitals, they use old facilities. Maybe you're not even sick when you go but you get the virus from the hospital. So my friend got me oxygen tanks sold in the market, then I began measuring my oxygen and fever until my parents arrived a day after our call. My fever went to 42°C and my oxygen level reached a critical point so I thought I was doomed. Even though I almost died, I didn't dare go to a hospital.23

WHEN THE HOSPITAL IS THE ONLY CHOICE

While Samir was fortunate to recover without requiring professional medical care, going to a public hospital was the only option for other patients, once oxygen levels reached dangerous lows and their capacity to administer care at home reached its limits. They did so with a great amount of trepidation. Mohammed, son and caregiver of a COVID-19 patient in Baghdad, noted:

My mom got really sick, and we had to provide her with oxygen at home. It was a lot of work, a lot of trouble, and it cost us a lot of pain. We tried and got advice, but we didn't really know how to deal with her state. At some point, we decided to immediately transfer her to the hospital in Baghdad, even though she didn't trust hospitals. I usually don't agree with people who don't trust hospitals, but at this specific time, I was also one of them thinking, 'Will she be safe in the hospital?' I had no choice, and [the government] wasn't even allowing the private hospitals as a second option, even though those are more about money than care anyway. I knew if I didn't go to the hospital with her, she would die. And if she dies in the hospital, she might die because of their equipment, but if I left her at home, she would die anyway. So that is what motivated me. We felt we had to bring everything because anything could happen. I had to bring a spare oxygen tank because hospitals don't provide it, and I was scared that the hospital would cut off oxygen; I didn't trust their supply. Their oxygen could go off and I would need a spare. It didn't happen, but the power went off once for an hour and I had to prepare the extra pack of oxygen. At that point, I was scared that the other patients would attack my spare tank but thankfully, it never cut off. Just the power.24

²³ Interview with (former) COVID-19 patient by the author, Erbil, July 4, 2021.

²⁴ Interview with caregiver of COVID-19 patient by the author, Baghdad, July 9, 2021.

Mohammed found himself in a bind. His mother did not trust hospitals at all, but the family could not manage her care at home any longer. With private facilities removed from the picture, and with public hospitals as his only option, he faced the implications of either keeping his mother at home or entering a clinical environment he increasingly perceived as deeply uncertain and potentially dangerous. Once within the hospital, the expectation that critical medical resources such as oxygen could be cut at any moment placed Mohammed and caregivers in a defensive mindset. Caregiving in this context has more to do with protecting loved ones from potential shortages and dangers than it does tending to the symptoms of the disease. Across the interview sample, caregivers described being on edge and constantly scanning medical facilities for imminent threats. This orientation places caregivers in a defensive relationship vis-à-vis each other. Mohammed was preparing himself for a physical altercation if oxygen supply was suddenly inaccessible.

Overall, the caregiving experience put Mohammed in an ethically compromised position. On the one hand, he was fully cognizant of the fact that his presence (and the presence of other caregivers generally) would be likely to add to the infection levels in the hospital and that, by hospital policy, he should probably leave. On the other hand, the internal resources were insufficient to entrust his mother to the hospital alone. He explained:

When I was accompanying my mom, I was on the floor and I knew there shouldn't even be family members present. But there aren't enough nurses, so I had to be there. The number of people smashed together, it increases the virus' ability to spread and even if someone recovers there, they might catch another strain of the virus. But we had to be there because there are so many issues that come up. My mother tried the needle to prevent blood clotting she got at the hospital. She didn't respond well to it, [even] after using it for 10-15 days. One of the nurses was nice enough to tell me, in secret, to get the needle from somewhere else. She said,

'I advise you to go outside of the hospital and buy the needle from another company because this one doesn't work'. So I had to spend my own money to get the needle from a pharmacy outside of the hospital.

Such examples point to the fact that in many critical moments, patients/families and medical professionals are on the same side of the distrust equation, banding together to confront a system both parties perceive as defective. But there are important distinctions between the world of patients, and the world of medical professionals. On the one hand, doctors are part of Iraqi society and understand the issues of distrust discussed above; many admitted they would never send their own loved ones to a hospital in Iraq – neither public nor private. On the other hand, there are times in which nurses and doctors speak in a voice that reflects their distance from everyday society. When asked about patient-doctor relations in COVID-19 clinics, doctors were quick to presume that "lack of education" or "ignorance" were the causes of certain problems of communication. One doctor noted:

I would go up to families and tell them it is dangerous for them to bring oxygen tanks into the clinic, but they don't understand. It's a problem of education.²⁵

Framing caregivers' lack of compliance to oxygen rules as "a problem of education" in a context where they have ample reason to believe oxygen supply will be cut misidentifies the source of the problem. Doctors tended to identify patients' strategies of hospital avoidance (i.e., not going to hospitals at all) as a reasonable problem of distrust, and disobedience of clinical instructions by doctors as a problem of a lack of education. A more accurate analysis would be to place distrust as the central problem in both of these instances.

²⁵ Phone interview with doctor by the author, Baghdad, July 9, 2021.



CAN THE NEXT FIRE BE PREVENTED?

To take meaningful steps forward in mitigating fire risks in COVID-19 wards, reactive strategies such as installing fire safety equipment are necessary but not sufficient. Fires in oxygen rich environments burn faster and hotter than normal fires and require a robust preventative approach. Ideally, the Government of Iraq would make urgent and comprehensive capital investments to update public hospitals, installing centralized oxygen supply systems and sound electrical infrastructures, while also instituting and enforcing ongoing upkeep practices and electrical testing. These policy steps have and will remain in the realm of the purely theoretical in the absence of political will. The governments' limited plan to install fire safety equipment are already woefully underfunded,26 let alone the broader infrastructural improvements needed to prevent rather than simply react to fires. There are, of course, myriad ways in which the existing health budget could be managed and spent more strategically to allow for gradual steps towards the kinds of maintenance practices mentioned above.27 But the post-2003 political economy of healthcare is not organized around responding to patients' needs and systemic risks. It is organized around maximizing revenues from the very medical supply chains that are so crucial to maintaining safe and secure hospitals.

In light of these structural realities, and for the foreseeable future, patients and their families will continue to assume and prepare for the worst in high-risk medical facilities such as COVID-19 wards. Doctors should be mindful of the fact that family caregivers of patients will understandably be hyper-vigilant and actively scanning the environment for risks and resource shortages. Families will assume that they must have multiple layers of contingencies and supports in place, even if it means rejecting hospital rules over the entry of unauthorized oxygen tanks, food, etc. Many will remain terrified of fires. Fire experts interviewed for this study insisted that even in such under-resourced and fraught medical environments, there are still actions that can be taken to assuage families' fears.28 They suggested an "all-hands-on-deck" approach cutting across all levels of staff working in COVID-19 wards, with specific risk mitigation duties and instructions for

²⁶ Phone interview with Ministry of Health (MoH) official by the author, July 5, 2021.

²⁷ Ibid

²⁸ Phone Interview by the author with hospital fire experts Maureen Heraty Wood, Mark Hailwood, and Konstantinos Koutelos, August 26, 2021.

each department and staff person (See examples in the footnote).²⁹ In the context of Iraq's post-2003 political economy of healthcare, where structural maintenance is systematically neglected, such piecemeal measures relying solely on the perseverance and goodwill of motivated medical professionals are the best one can hope for. But ultimately, such efforts come up against serious structural limits.

VISIONS OF REFORM: WHO IS RESPONSIBLE FOR THE HEALTHCARE SYSTEM?

While remaining focused on the limited issue of corruption in the context of the hospital fires, this paper has hinted at broader political and conceptual debates around the possibilities of reform in healthcare and other service sectors. When Iraqi doctors, citizens, and patients reflect upon the possible ways forward for healthcare in the broadest sense of reform, there is often a sense of confusion given the drastic changes in the relationship between medicine and the state over the past three decades. For most of the twentieth century, medicine was intimately tied into the project of state-building and private healthcare providers were therefore scarce.30 But the political order emerging out of US-led wars and Occupation is not organized in Iraq around a "state" in the Westphalian or Weberian sense.31 It is a thoroughly fragmented political order consisting of an arena of competing political interests and armed actors, with entire ministries and provinces falling under the de facto control of one political faction or another. Within this arena of political competition, corruption is not an illicit activity; it is the lifeblood of these political factions, allowing them to shore up the support of loyalists while undermining equitable access to the very public institutions and private markets they control. What forms of life-affirming medicine could possibly emerge in such a political context?

The notion of achieving robust and universal state medicine in a post-2003 context lacking meaningful state authority is probably illusory as long as the current political order is in place; however, pinning one's hopes on the exaggerated promise of building up an efficient private medical sphere is equally problematic. The private medical markets, facilities, and services in Iraq are also deeply tied into the same fragmented and corrupt political order. There are no easy overarching frameworks for conceptualizing reform amid Iraq's ongoing medical catastrophe. Hospitals will remain structurally unsafe under the weight of failed maintenance and procurements. Patients and their families will continue to bear the financial costs of most treatments, and only enter public clinical spaces with a mixture of fear and hyper-vigilance. Achieving marginally more accessible and humane healthcare services in Iraq, even within the basic parameters of the current chaotic patchwork of public and private services, would require forms of political action that threaten deeply entrenched political and economic interests, and would inevitably come at a price.

²⁹ For example, cleaners should understand which solvents to use or avoid. Nurses and doctors should monitor ventilation, ensure that windows to the outside remain open, and frequently air out bed linens to release pockets of oxygen buildup. If centralized oxygen is not an option, only hospital-designated personnel should collect, transport, and store the tanks.

³⁰ Omar Dewachi, Ungovernable Life: Mandatory Medicine and Statecraft in Iraq (California: Stanford University Press, 2017).

³¹ Toby Dodge, "Understanding the role of al-Hashd al-Shaabi in Iraq's national and transnational political field," Challenges to the Middle East North Africa Inclusionary State, Project on Middle East Political Science (POMEPS) Studies 37 (February, 2020): 5-12, https://pomeps.org/wp-content/uploads/2020/02/POMEPS Studies 37 Web.pdf.



