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## Chapter X

# Global Health Disparities and Trafficking of Human Beings for the Purpose of Organ Removal

Ana Manzano

### **Abstract**

There are many complex reasons why people sell and buy human organs and how global criminal networks benefit from this commercialization. This trade includes people who are trafficked for the purpose of removing their organs to sell them for profit. This chapter aims to understand these extreme behaviors by examining the intersectional relationship between inequitable access to health and health care in diverse populations across the globe.

Disparities in health outcomes have the potential to encourage the trafficking of human beings for the purpose of organ removal. This chapter will firstly discuss general global health disparities and the particularities of chronic kidney disease, since kidneys are more likely to be sold for profit. Secondly, wealth, national transplant systems, ethnicity and gender disparities in organ donation will be related to organ trafficking. Finally, this chapter will also examine how the COVID-19 pandemic aggravated these intersectional disparities because of the direct impact on transplantation capabilities worldwide and increased vulnerability of populations at risk of trafficking.

**Keywords:** health disparities, health inequalities, organ trafficking, organ trade, trafficking of human beings for the purpose of organ removal; COVID-19.

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## 1.1 Introduction

Human organ transplantation has the potential to be the best treatment available for several chronic and terminal illnesses. Scientific advances in transplantation have progressed rapidly from the early 20<sup>th</sup> century: from corneas in 1905 to kidneys in the 1950s to the heart in 1967, followed by liver, lungs, pancreas, intestine, and a full facial transplant in 2010, and the womb in 2014. However, these innovative therapeutic advances, unlike many others, depend on the availability of donated human organs. These organs can be retrieved from deceased bodies (deceased organ donation) or living bodies (living organ donation), although organs from living donors are more likely to have the best post-transplant results. At the time of writing, living organ donation is feasible with two organs, kidneys and liver. Since its conception, the demand for transplants has outstripped the availability and supply of human organs, not only because this type of treatment is dependent on the altruism of other human beings but because this outstanding medical innovation is expensive and riddled with medical and institutional complexities (1). Demand is also endless as more organs are added to the list, people live longer and these continuous technological advancements mean that older age is no longer a barrier for transplantation.

There are many complex reasons why people sell and buy human organs and how global criminal networks benefit from this commercialization. These reasons are often simplified with a narrative of colluding desperations: the financial desperation of those in need of money, and the clinical desperation of those in need of better health. Of the people trafficked worldwide every year, some will be trafficked for the purpose of removing their organs to sell for profit. Most commonly, people are transferred from their place of residence to another location (region/country), where one of their organs (e.g. a kidney or a portion of their liver) is removed and transplanted into another person. Many people also sell their organs

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domestically and this is often referred to as organ trade/sales (2). The reasons for this commercialization are related to the history of organ transplantation engrained with ethical issues from its origins. These can be broadly summarized as ethical issues related to the use of human subjects and cadavers for medical experimentation, and those associated to the shortage of available organs for transplantation. Interestingly, the first transplantations were conducted shortly after the Nuremberg code (1949), a set of ethical research principles for human experimentation to prevent the Second World War research atrocities from being repeated was signed. The code promoted ten standards of research with humans, stating that explicit voluntary consent from patients must be required for human experimentation. Later in 1964, the Declaration of Helsinki, set up by World Medical Association, described voluntary consent as absolutely essential (3).

It is hard to establish how and when patients who needed or preferred living human organs for their transplants started to pay healthy people for their kidneys. Some quote India in the 1980s (4) (5), where poor citizens sold their kidneys to mainly foreign patients from regions such as the Middle East, Malaysia and Singapore (6). In 1987, as kidney transplants became part of routine treatments in many Western countries, the World Health Organization (WHO) declared the organ trade illegal because it contravenes the Universal Declaration of Human Rights (7). This WHO guiding principles document was followed by a number of supranational regulatory instruments that flourished at the beginning of the 21<sup>st</sup> century, criminalizing the trade of organs including the Declaration of Istanbul on Organ Trafficking and Transplant Tourism (8). The UN Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children – also known as The Palermo Protocol (9) - in Article 3 defines and criminalizes trafficking in human beings for the purpose of organ

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removal (THBOR) by specifically mentioning it when referring to “the removal of organs” as one of the “purposes of exploitation” of trafficking in persons.

This chapter aims to examine the relationship between inequitable access to health and health care in diverse populations across the globe. This generates disparities in health outcomes and has the potential to encourage THBOR. This chapter will examine the intersectional relationship between various health disparities and the organ trade demonstrating how they are closely entangled with motivation to buy and sell organs. Firstly, general global health disparities will be discussed and since kidneys are more likely to be sold for profit than other organs, the particularities of chronic kidney disease will be examined. Secondly, wealth, national transplant systems, ethnicity and gender disparities in organ donation will be related to organ trafficking. Finally, the effects of the COVID-19 pandemic will be examined, showing how this aggravated these intersectional disparities because of the direct impact on transplantation capabilities worldwide and increased vulnerability of populations at risk of trafficking.

## 1.2 Health disparities in an unequal world

Scholars often thrive on disagreements, and disputation is a key mechanism for science to advance. There is, however, agreement in the scientific literature that the place where people live affects their health. Rich countries have better health outcomes than poor countries, and habitants of poorer areas within rich countries have poorer health outcomes than those living in wealthier neighborhoods. The environment that individuals live in, their social and economic conditions, impacts their health and mortality. Health disparities are about these differences in health status, also referred to by some as health inequalities or the health gap

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(10) (11). Academic disagreements on health disparities concentrate on the reasons why this gap occurs. Some (10) argue that low socioeconomic status and the living conditions of poor people generate poor health (social determinants of health). Others (12), however, favor individual explanations that blame decreased health outcomes on lack of individual responsibility, or low health literacy, which means that people make the “wrong” health and lifestyle choices.

These diverse views on the causes of health disparities reflect directly in public health improvement policy solutions, which tend to focus on individual responsibility, for example, educating the poor on the benefits of healthy diets and exercise, or the health risks associated with alcohol, drugs and tobacco consumption. There are, however, differences in the health risks that people are exposed to according to their wealth and these are reflected in the opportunities they have to remain healthy. For instance, clean water and sewage provision are fundamental infrastructures for health. However, in many countries, policymakers promote the use of individual filtration and bottled water to access clean water, instead of investing in more expensive structural policy solutions such as water chlorination, filtration and improved sewer systems.

Geographies, biology and organizational contexts of organ donation are crucial determinants of rates of donation and transplantation. Although it seems that bodies and their inner parts are interchangeable, only some bodies and some parts are interchangeable in some parts of the country. Patterns of access to organ donation also match patterns of inequality in society more broadly. In organ transplantation and trafficking, these are often studied in terms of demographic categories (socioeconomic position, gender, ethnicity, country of origin of buyers and sellers); but in the last decade, many scholars (13) have highlighted the relevance of an intersectional perspective in health inequalities. That is, a focus on “social

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dynamics rather than social categories” (14), which is based on the impact of a conglomeration of unequal “systems of race, social class, gender, sexuality, ethnicity, nation and age” that construct social organizations (15) such as legal and illegal organ transplantation systems. This means that the places where people are born, the health systems available to them and the lived experiences they have according to their demographic characteristics entangle in complex and dynamic forms to generate victims and perpetrators in organ trade networks. In the next section, I untangle some of these intersections to further understand this phenomenon from a public health, rather than a criminology, perspective.

### 1.3 Health disparities in kidney disease and transplantation programs

To be able to understand the kidney organ trade, it is important to examine the impact of health disparities in chronic kidney disease. There are several types of kidney disease, often broadly typified as short-term or acute kidney injury (AKI) and chronic kidney disease (CKD). With CKD, the kidney is damaged permanently and over time it will stop working. When tests show the kidneys are getting worse, people are diagnosed with progressive CKD; when their kidneys function at less than 10-15% of their normal rate, this is called Established Renal Failure (ERF) (or variations thereof) (16). At this late stage of disease progression, there are treatments that can do some of the work of the kidneys (renal replacement therapy) or treatments that manage the symptoms of ERF (conservative care) with medication and diet but since these do not replace kidney function, eventually, kidney failure leads to death. At the time of writing, the two main replacement therapies are kidney transplantation and dialysis, which removes toxins and excess water from the body using artificial filters, doing about 10% of the work of both kidneys (16).

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The burden, diagnosis, treatment and prognosis of kidney disease varies substantially across the world, although, the availability of global data reflecting the full impact of kidney disease is limited and inconsistent as many countries lack surveillance systems (17). In 2016, the spectrum of kidney disease was estimated to affect more than 750 million people worldwide (18) and around 15% of the US population has been diagnosed with CKD (19). The reason why people eventually need a kidney transplant is a compelling interplay of biological, environmental, sociocultural, political and healthcare system factors colliding. The prevalence of early stages of CKD seems to be similar across different socioeconomic groups, while the prevalence of progressive and end-stage renal disease is greater for ethnic minorities. This is better documented in high-income countries, where monitoring systems are in place identifying decreased kidney disease outcomes in ethnic minority groups (20) and people with lower socioeconomic status.

Kidney disease care is complex and expensive. While in some countries, the government funds CKD and ESRD care, in others such as the US, while ESRD care is publicly financed, optimal treatment of CKD may not be accessible for people without health insurance or those who are under insured, and undocumented immigrants are not covered for kidney disease (21) (22). Globally, access to and distribution of renal replacement treatment varies and often requires significant expenditure for patients (17). There is a lack of adequate facilities for hemodialysis in low and middle income countries, decreasing quality of life. As well as global and local structures, there are longitudinal structures of marginalization, which include lack of transplant facilities in these countries. For example, although CKD has a high incidence in black Africa, public health programs tend to focus on infectious diseases. In French-speaking Black Africa, kidney and liver transplantation are often not provided by government public health programs. As a consequence, some people who need treatment and



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can afford it, travel abroad for transplant (23). Sub-standard follow-up outcomes, which include the inability to afford the complex, chronic and expensive treatment needed post-transplantation, have been reported.

Living-donor transplantation programs are found in only a small number of African countries: some that are established such as South Africa, Tunisia and Sudan and others still developing, such as Ghana, Kenya and Nigeria. Deceased donation is only available in South Africa. Although Egypt has been identified as a hub for international organ trade, it was only in 2010 that this country legalized live organ donation, establishing a formal organ waiting list and banning financial rewards for organ donation (24). Even when programs exist, the cost of follow up is prohibitive for most citizens. For example, in Cameroon, there is government funding to travel abroad for transplantation but patients must cover the prohibitive cost of essential immunosuppression drugs (25).

## 1.4 Wealth disparities and human trafficking for the purpose of removal of human organs

In THBOR, the policy focus on fighting “transnational organized crime” diverts attention from many failed nation state policies (i.e. public health, labor, migration) (26) that generate and sustain structures of privilege and marginalization. This is why it is essential to examine the wealth inequalities that operate upwards and sideways to instigate criminality. Globally, there are systems of wealth disparities between low and high income countries that can facilitate markets for organs; local and national structural inequalities generate poor people that are more likely to become victims of organ commercialization. In THBOR, wealth disparities operate “within the same interlocking set of oppressions that perpetuate other

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forms of trafficking” (27) but these have the added contextual difference of health disparities.

Not only in sellers but also in buyers of human organs, intersectional characteristics of gender/class/age/ethnic societal structures of marginalization (27) create the potential to promote organ commercialization. While the literature and policy instruments usually treat different forms of trafficking (sexual, labor, organs) separately, poor people can be vulnerable to more than one form of trafficking simultaneously (27) and in this process they may be moved across national and/or international borders. For instance, Columb (26), demonstrated how in Egypt, Sudanese migrant populations are key sources of sellers in the country’s organ trade networks. Sudanese brokers were often involved in the recruitment of Sudanese sellers from the migrant community, while recipients were recruited domestically and internationally.

Reliable information on THBOR is sparse but reliable information on wealth disparities is abundant. Although it is difficult to establish a general profile, sellers tend to come from countries with a large proportion of the population living below the poverty line. Poverty, debt and the inability to provide for their families are clear and constant reasons for people to sell one of their body parts, with debt featuring heavily in the majority of the studies across numerous international settings (28) (29). The socio-demographic characteristics of organ vendors are not homogeneous, although they tend to be from a relatively young age and low-level education (30). The seller’s financial needs can be due to poverty in lower-middle-income countries (e.g. Vietnam, India, the Philippines), but also due to extreme wealth differential across countries and national inequalities in countries with higher incomes (e.g. Singapore, Hong Kong) but with high living expenses. The latter explanation, based on income inequality not just absolute poverty, offers a more nuanced understanding of the cases

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where people have been prepared to sell body parts to purchase luxury objects, such as the story of the 17-year-old who sold their kidney to buy an iPad (31).

There is also more information about the situation and experiences of organ sellers and buyers from some countries than others and the nationality varies as prohibitionist legislation has been implemented. A number of countries were identified by Pascalev et al. (30) in their systematic review as more likely to have organ trade transactions, namely India, China, the Philippines, Pakistan, Bangladesh, Kazakhstan, Ukraine, Russia, Iraq, Jordan, Egypt, Romania, Moldova, Kosovo, Turkey, Israel, Brazil, Colombia, Peru and Bolivia. Many of these countries have since passed legislation to deter organ commercialization but networks and infrastructure remain active.

## 1.5 Gender disparities in organ transplantation and organ trafficking

There are gender discrepancies in chronic disease, organ donation and deceased and living organ transplantation and, despite the lack of access to reliable data, these seem to be mirrored in organ trafficking. These gender disparities tend to favor men and are often presented as a “puzzle” where biological and social factors interplay in such complex ways that it is difficult to establish if women are discriminated by medical institutions or if there is an inevitable biological determinism that results in unfavorable health outcomes for women. Nevertheless, since medicine has been traditionally identified as a gender-biased science (32), we could assume that the same historical and societal constructs that impact women negatively extend to the field of organ transplantation.

In 2022, the European Committee on Organ Transplantation of the Council of Europe, the committee that monitors the development of ethical, quality and safety standards in

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transplantation in Europe (33), estimated that in most European countries, there are gender differences in deceased vs living donation with women donating more living kidneys and livers and the majority of all human organs being transplanted into men. Although epidemiology may be influenced by the higher incidence of certain diseases in men, evidence suggests that gender roles in patriarchal societies (the ones we still mostly live in today) influence who is seen as deserving the precious human organs from dead or live bodies. For example, multiple studies have identified disproportionate gender differences in heart transplantation (34) when there are no gender differences in the likelihood of heart failure but women are more likely to die from it (35). Only 30% of all heart transplantations are conducted in women (36). Although some biological explanations can be possible (e.g. childbearing related immune sensitization (37), donor-recipient size mismatch (38)), many social explanations related to expected gender roles for women are likely to impact their reduced access to organ transplants.

In the case of living donation, patterns have consistently demonstrated a greater tendency of women to be donors (33). Although many explain this gender disparity due to a supposed altruism unique to women's biology, the social roles of women are more likely to drive this sacrifice for their partners, children or other family members. Culturally, women are more likely to feel or be more pressured to donate and risk their health because men are still perceived as the main breadwinners in households worldwide. Globally, CKD is more prevalent among women (39) but more men than women start renal replacement therapy with older women being more likely to refuse it (40), and women's mortality is higher on liver transplant waiting lists (41). There might also be a gender selection bias on who is put forward to access kidney transplantation, which includes societal norms about female body

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shape, since women classified as overweight and obese have lower access to transplantation than men with the same BMI classification (42).

In human trafficking, gender puzzles also occur. Women are more vulnerable to human trafficking, and this is why traditionally they had been considered as victims, and men offenders. Recent studies have demonstrated a more nuanced account of gender roles in human trafficking networks with women fulfilling active and leading roles (43) (44). Youssef (27) argued that the conceptual and policy gendered separation of different types of trafficking (women in sex trafficking, men in labor trafficking) seemed to have contributed to the invisibility of organ trafficking and also a gendered bias view of it (poor men who sell their kidneys). However, in THBOR, there are blurred boundaries between victimization and criminalization where victim-offender roles overlap (45).

There is disagreement in the academic literature about which is the dominant gender of sellers. There is more information about sellers than about buyers since organ sellers are more likely to be prosecuted than buyers; they are also easier to recruit as research participants. Pascalev et al. (30) concluded that the vast majority of them are men and, in fact, men have been interviewed more for ethnographical studies in countries like Bangladesh, Moldova, Egypt, Pakistan, Colombia and the Philippines. Male sellers are also the ones who have been prosecuted in the few THBOR cases brought to justice. However, sociologists have long established how patriarchal power relations shape gender differences in crime related activities, with women being pushed into crime and exploitation in different ways than men and this is also the case in THBOR. In a cross-sectional survey study with kidney sellers in India of which 71% were female (46), 31% of the married women reported they sold organs because their husbands were the breadwinners and two women said that they had been forced into doing so by their husbands. This phenomenon can be further understood

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with Tong et al.'s (47) in-depth interview study with transplantation staff across Asia, which found that the number of women donors appeared disproportionately high and related this to the extended practice of covert commercial transplantation in the form of illegitimate marriage arrangements and falsification of relationships. Pseudo-marriage for transplantation is acknowledged by many policy instruments and deterrents are put in place to avoid it. For example, Hong Kong's living organ donation legislation stipulates that spouses from marriages that have lasted for fewer than three years are not considered as eligible living donors (48). Similarly, in Taiwan living donation is restricted to spouses married for a minimum of two years or who have given birth to at least one child (47).

## 1.6 Ethnicity and health disparities in organ donation, transplantation and trafficking

Advances in transplantation are predicated on the availability of donated organs which is intrinsically linked to the process of matching donors and recipients. Laboratory innovations in blood typing and tissue matching are essential here since organ allocation protocols are based on matching two principal immunological characteristics between donor and recipient: blood groups and genetic type (called the tissue type or HLA-human leukocyte antigens-type). A 'same blood group' rule, matching donors and recipients, is usually maintained. There are four main blood types in human populations; in the United Kingdom, O is the most common blood group and A, B and AB are rare. B and AB are particularly concentrated amongst South Asian, Chinese and Japanese communities. This means that these blood groups are also geographically concentrated. The distribution of HLA antigens also differs between ethnic groups. For complex reasons, the majority of organs are donated from the white population, therefore access to organs can be particularly difficult for some communities. New products and systems that can counteract the rejection of organs are

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fundamental to the matching process. For instance, researchers are working on artificial blood group conversions (49) using a perfusion machine. While these innovations take years to be taken from labs to operating theatres, there are still disparities in the donation process based on ethnicity and geographical location.

Time constraints also restrict donation procedures. After matching, medical staff have to manage the organization of the donation process: finding available theatres in donor and recipient hospitals, booking planes and summoning specialized transplant teams at short notice. Organs that cannot be stored using cryogenicisation (like corneas and other tissues) have to be transplanted promptly after removal for them to retain their functional qualities. This period is variable (approximately 40 hours for a kidney, and four hours for a heart) but, as a general rule, the shorter the amount of time, the better the outcome. The whole process – from allocation to removal to implantation into the multiple recipients – often takes less than a few hours. This means that in areas where there are fewer donors, there are fewer organs available for transplantation. Together these arrangements mean that there is significant variation in demand for, access to, and waiting times for organs between different ethnic groups in different countries. For example, in countries like the UK (50) and the US (51), there are a disproportionately greater number of people from black and minority ethnic backgrounds waiting for transplants. Addressing these inequalities is not just a matter of scientific and technical advancement, better training or public health, it requires a coherent strategy and concerted action. This includes changing institutional mechanisms to make the matching process more flexible, speeding up the allocation of organs and sourcing suitable donors in the local community, as well as improving coordination between institutions to streamline the donation process.

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Consequently, with access to organs particularly difficult for some communities with chances of being allocated an organ next to impossible, larger proportions of ethnic minorities travelling to the region of their ethnicity to obtain transplantation have been identified in several countries (52) (53). These buyers can also experience limited access to medical care post-transplantation. Although buyers can afford the purchase, funds may be limited and/or borrowed; the follow-up care, fundamental to a successful transplantation, is unaffordable.

## 1.7 The impact of the COVID-19 pandemic on trafficking of human beings for the purpose of organ removal

The COVID-19 pandemic affected global healthcare delivery systems in general and disproportionately impacted different population groups, widening existing health disparities across the world. For example, in England, from March 2022, mortality from COVID-19 was 2.6 times higher in more deprived areas. These disparities were higher in ethnic minorities, with Bangladeshi, Pakistani and Black Caribbeans experiencing higher mortality from COVID-19 (54). In the US, during the early part of the pandemic, there was increase in mortality on kidney transplantation patients on the waiting list and transplanted patients (55) and the highest mortality (82% above expected) was among Hispanic solid organ transplant recipients (56). In addition, the pandemic generated pervasive gender-based inequities across the world.

The impact of the COVID-19 pandemic extended to organ transplant and human trafficking, although the consequences for TBOHR were rarely discussed. Initially, it had a dramatic effect on organ transplantation since many hospitals prioritised COVID-19 patients



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and temporarily stopped or reduced transplantation activity (57). Reasons ranged from organizational (e.g. high use of intensive care beds for patients with lung diseases from COVID-19 infections, loss of access to operating theatres, shortage of transplant staff due to illness or redeployment, diverted healthcare funding, logistical challenges due to travel restrictions), to clinical (e.g. concerns over donor-derived disease transmission, adverse outcomes in immunosuppressed recipients), to personal (e.g. safety of living donors, severe isolation of patients from non-household contacts who wanted to postpone hospital appointments) (57). Overall the impact varied according to organ type and over time. Kidneys were not perceived as urgent organ transplantations since stable transplant candidates could be put on renal replacement therapy and many living donor programs were suspended or reduced across the world (58). Living donor transplantation experienced greater reductions in activity than deceased donor transplantation (global 40% reduction in kidney living donors and 33% reduction in liver) (59). Many complex factors impacted this overall decline, including a decrease in donors but also reduced availability of ICU beds for maintaining donors. Geographic sharing of organs was limited to local organs in many areas for several reasons including restricted air travel (60).

When it comes to human trafficking, reductions in income, especially for low wage, seasonal and informal sector workers (e.g. agriculture and farming, garment industry, manufacturing and domestic work), exacerbated precarity and vulnerability in sectors where human trafficking is common (61). This vulnerability has the potential to be exacerbated in countries with limited social safety nets for marginalized populations (62). During the worst of the pandemic, migrants were stranded in smuggling routes (63) with restricted access to desired destinations, while online services and activity increased, allowing criminal networks to recruit people with false promises. Interpol warned that the COVID-19 impact “exposes

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economically vulnerable communities to a higher risk of being exploited for the purpose of organ removal”. In 2021, the press published stories of groups of people being lured to sell their kidneys in India’s Assam tea plantations after the devastating economic impact of the pandemic on rural workers forced many to take out loans that were unable to repay (64). Similar stories have been published about Ugandan workers in the Gulf states (65), Egypt (66) and Afghanistan (67).

## 1.8 Conclusion

While this chapter has demonstrated an understanding of the shortages in organ donation that can lead to organ trafficking, we also need to consider the organization of the systems of donation and transplantation and how these shape the availability and success of organ transplantation for some people. The image of individual altruists who simply choose to “do good” has been challenged by scholars such as Healy (68), showing how procurement organizations play an important role in the donation process. Scholars have explored the political economy of organ donation, particularly the ethics of turning human bodies into commodities (69) for others to buy and profiteer. However, the image of selfish individuals who simply choose to pay for human organs must also be challenged. This suggests that when thinking about how to reduce THBOR, a range of practical, national and local aspects of how it is organized must be approached. To understand the significance of health disparities in THBOR is fundamental since trafficking and transplants are entangled in biology, geography and socio-economic factors. The amplified impact of COVID-19 on health disparities and the backlog of patients on transplant waiting lists has the potential to increase vulnerability to being trafficked in already marginalized populations worldwide.

## Discussion Questions

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1. How would you describe the relationship between inequitable access to healthcare in diverse populations and THBOR?
2. How is the motivation to sell and to buy human organs influenced by intersectional health disparities?
3. What research evidence supports gender discrepancies in living organ donation and the organ trade?
4. Why did the COVID-19 pandemic aggravate the intersectional health disparities in populations at risk of THBOR?

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