

References

- Broumand, B., & Saidi, R. F. (2017). New definition of transplant tourism. *International Journal of Organ Transplantation Medicine*, 8(1), 49–51.
- Caulfield, T., Duijst, W., Bos, M., Chassis, I., Codreanu, I., Danovitch, G., Gill, J., Ivanovski, N., & Shin, M. (2016). Trafficking in human beings for the purpose of organ removal and the ethical and legal obligations of healthcare providers. *Transplantation Direct*, 2(2), e60. <https://doi.org/10.1097/TXD.0000000000000566>
- Del Mar Lomero-Martínez, M., Sánchez-Ibáñez, J., Fernández-García, A., López-Fraga, M., & Domínguez-Gil, B. (2017). Trafficking in human organs and human trafficking for organ removal: A healthcare perspective. *Journal of Trafficking and Human Exploitation*, 1(2), 237–256.
<https://doi.org/10.7590/245227717x15090911046601>
- Deriglazov, D., Halamová, J., & Kernová, L. (2025). Burnout, compassion fatigue, and compassion satisfaction interventions via mobile applications: A systematic review and a meta-analysis. *Worldviews on Evidence-Based Nursing*, 22(3), e70033.
<https://doi.org/10.1111/wvn.70033>
- Domínguez-Gil, B., Delmonico, F. L., Shaheen, F. A. M., Matesanz, R., O'Connor, K., Minina, M., Muller, E., Young, K., Manyalich, M., Chapman, J., & Martin, D. (2017). The key role of health professionals in preventing and combating transplant-related crimes. *Kidney International*, 92(6), 1299–1302.
- European Parliament. (2015). *Trafficking in human organs* (p. 36) [Map]. Directorate-General for External Policies of the Union.

[https://www.europarl.europa.eu/RegData/etudes/STUD/2015/549055/EXPO_STU\(2015\)549055_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/549055/EXPO_STU(2015)549055_EN.pdf)

Krylova, Y., Terrorism, Transnational Crime and Corruption Center (TraCCC), Anti-Illicit Trade Institute, George Mason University, Singh, R., Lasmar, J., Rico, D., Shostko, O., & Kupatadze, A. (2023, May). Smugglers' paradises in the global economy: Growing threats of hubs of illicit trade to security & sustainable development. In *HUBS OF ILLICIT TRADE (HIT) PROJECT*.

<https://traccc.gmu.edu/wp-content/uploads/2024/10/HIT-Final-Report.pdf>

Moreau-Chick, J. (2024, August 12). *The dark side of transplant tourism: Inside the illegal organ black market*. Anti-Human Trafficking Intelligence Initiative.

<https://followmoneyfightslavery.org/new/the-dark-side-of-transplant-tourism-inside-the-illegal-organ-black-market/>

Negri, S. (2016). Transplant ethics and the international crime of organ trafficking.

International Criminal Law Review, 16(2016), 287-303. DOI
10.1163/15718123-01602001

Office to Monitor and Combat Trafficking in Persons. United States Department of State.

(2024, June). *Trafficking in persons report: Factsheet*. United States Department of State.

https://www.state.gov/wp-content/uploads/2024/08/24-02934-TIP_Factsheet-Force-d-Organ-Removal_Accessible-8.22.20224.pdf

Powell, C., Dickins, K., & Stoklosa, H. (2017). Training U.S. health care professionals on human trafficking: Where do we go from here? *Medical Education Online*, 22(1), 1267980. <https://doi.org/10.1080/10872981.2017.1267980>

Rural Health Information Hub. (n.d.). *Human trafficking in rural communities* [Bar chart].

<https://www.ruralhealthinfo.org/rural-monitor/human-trafficking>

Shimazono, Y. (2007). The state of the international organ trade: A provisional picture

based on integration of available information. *Bulletin of the World Health*

Organization, 85(12), 955–962. <https://doi.org/10.2471/blt.06.039370>

Stammers, T. (2022). Organ trafficking: Why do healthcare workers engage in it?

Cambridge Quarterly of Healthcare Ethics, 31(3), 368-378.

<https://doi.org/10.1017/50963580121000951>

Talbott, J., Titchen, K., Mishra, N., & Kling, J. (2022). A scoping review of labor and

organ trafficking resources for U.S. healthcare professionals. *Journal of Human*

Trafficking, 10(3), 465–478. <https://doi.org/10.1080/23322705.2022.2054616>

The Ohio State University. (n.d.). Chapter 9: Organ trafficking [Diagram]. In *Human*

trafficking 2025.

<https://ohiostate.pressbooks.pub/humantrafficking2025/chapter/chapter-9-organ-trafficking/>

Toney-Butler, T. J., Ladd, M., & Mittel, O. M. (2023, June 11). *Human trafficking*.

StatPearls [Internet]. <https://www.ncbi.nlm.nih.gov/books/NBK430910/>

United Nations Office on Drugs and Crime. (n.d.). *Explainer: Understanding human*

trafficking for organ removal. United Nations: Office on Drugs and Crime.

https://www.unodc.org/unodc/frontpage/2024/June/explainer_-understanding-human-trafficking-for-organ-removal.html#:~:text=Key%20players%20include%20brokers%20who,along%20with%20stigmatization%20and%20depression.

Williamson, A. J. (2023). *Implementation of a Nursing Assessment Tool to Identify Human Trafficking* (Publication No. 30493703) [Doctoral dissertation, ProQuest

Dissertations & Theses Global].

<https://libproxy.wlu.ca/login?url=https://www.proquest.com/dissertations-theses/implementation-nursing-assessment-tool-identify/docview/2900851472/se-2>

World Health Organization. (2004). Organ trafficking and transplantation pose new challenges. *Bulletin of the World Health Organization*, 82(9).

<https://www.who.int/bulletin/volumes/82/9/feature0904/en/>

Appendix A

Visual Representations of Human Organ Trafficking

This appendix includes visual representations that aid in contextualizing HTOR, including global trafficking routes (see Figure 1), victim interaction rates with health care providers (see Figure 2), and estimated organ values in the illicit markets (see Figure 3). These figures highlight the global scale at which trafficked organs move, the roles of healthcare professionals as critical interaction points, and the socio-economic incentives that contribute to transplant tourism and HTOR. Altogether, they support further investigating the prevalence, assessing healthcare risks of engagement, and the importance of preventative measures.



Figure 1. This map illustrates the known international trafficking routes, including movement from the East and South to the West and from poor to wealthy countries, emphasizing the economic disparity and transplant tourism patterns.

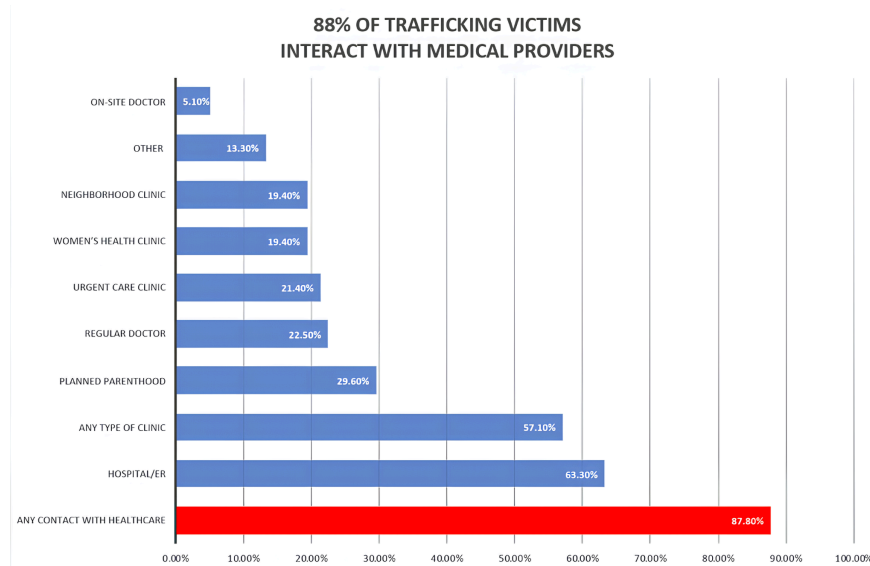


Figure 2. This bar chart diagram displays the number of victims, in percentages, who have interacted with healthcare providers, highlighting how workers are critical points of interaction when identifying and preventing HTOR.

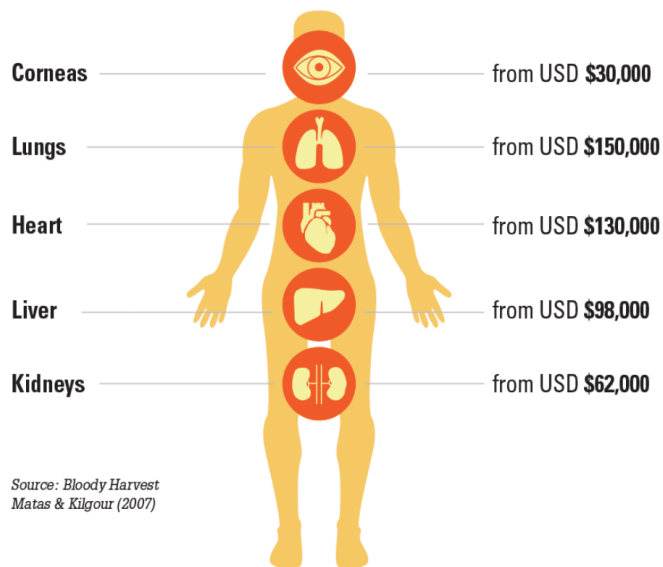


Figure 3. This human organ body diagram illustrates the estimated values of human organs in illicit market trades, pointing out the socio-economic incentives that place healthcare workers at risk for engaging in or facilitating HTOR.

Appendix B

The Risk Assessment Tool Scoring Scheme

This appendix presents the proposed risk assessment tool examined in this paper. The HERE-HTOR intends to measure the level of risk that healthcare offenders pose for engaging in HTOR in the future. As a proposed tool, this scoring scheme enables a visual representation for evaluating healthcare facilitation or engagement in trafficking operations.

The HERE-HTOR is scored on a 5-point Likert scale (1 = Not at all to 5 = Strongly Agree) and consists of 15 items. This scoring scheme is completed by individuals employed in the medical field in the presence of an established administrative professional. A total score exceeding 50 out of 75 points indicates the individual is at a high risk for offending and requires review and intervention.

Healthcare Evaluation of Risks and Exposure - Human Trafficking for Organ Removal (HERE-HTOR)

Name:

Date:

Job Title:

Position/Role:

The chart below includes 15 statements. Please read over them carefully and rank your answers within the 5-point scale listed below on how each statement applies directly to you and your professional life. After completing the questionnaire, please tally the score and refer to the provided score sheet.

Not at all	Strongly Disagree	Disagree	Neutral	Strongly Agree
(1)	(2)	(3)	(4)	(5)

	Statement	(1)	(2)	(3)	(4)	(5)
1	Sometimes, I feel emotionally detached and/or desensitized to patient suffering.					

2	I have previously received disciplinary action or a misconduct complaint for ethical violations.					
3	Ethical misconduct can be justified under substantial pressure.					
4	I have witnessed coworkers make questionable medical decisions.					
5	I have completed mandatory training on human trafficking, the illicit organ trade, and international anti-trafficking laws.					
6	Financial stress would never influence my professional and medical decisions.					
7	I feel that my salary is stable and accurately reflects my career responsibilities.					
8	I am aware of social networks that have been or are currently connected to illegal and unethical organ transplants.					
9	I feel excluded in the workplace, which has led to a lack of professional support and resources.					
10	The responsibility for unethical decisions is a group effort, making it difficult to hold only one person accountable.					
11	I know about patients who have looked into organ transplants through unqualified or international networks.					
12	I am unable to identify the indicators of HTOR in my workplace confidently.					
13	I believe that global shortages of organs may force healthcare professionals to take extreme measures to save a life.					
14	I don't know about the resources available to report suspicious, HTOR-related activity successfully.					
15	I have experienced attempted bribery and/or threats to perform unregulated procedures.					

Total Score	/75
--------------------	-----

Once the score is successfully tallied and recorded, please refer to the risk analysis section below. It is important to note that statements 5-7 are reverse-scored, meaning a score of 5 = 0 and 0 = 5. Here, the total score results can be interpreted in terms of the four levels of risk and their corresponding descriptions of the risk(s) posed.

Risk Analysis

No to Low Risk: Scores Between 0-25

This individual demonstrates strong ethical and financial stability with low exposure to the risk factors associated with HTOR. Minor risks for offending may exist, but the overall likelihood of facilitation or engagement in trafficking is low. Advised to maintain low risk through training and awareness.

Moderate Risk: Scores between 26-50

This individual presents a moderate risk of offending due to financial distress, inadequate oversight management, or involvement in unethical practices. This requires formal ethics training, ongoing monitoring of work, and regular policy reviews to strengthen protective factors against engagement in HTOR.

High Risk: Scores between 51-75

This individual exhibits significant ethical, financial, or social risk factors that may indicate a high susceptibility and/or involvement in HTOR operations. This requires an immediate review and board management intervention to address and contain potential misconduct or prevent the escalation of offences.

Figure 4. This outlined, 15-item, HERE-HTOR measures any healthcare worker who requires an evaluation and assessment regarding their level of risk to engage in HTOR. The outline is deemed significant, as it provides evidence and support when describing my construction and measurement of the proposed risk assessment tool.