Deceased Organ Donation and Transplantation in LIMC: A Meeting Report

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Deceased donor organ transplantation rates (DDOT) are very limited in low- and middle-income countries (LMICs).[1-3] The Transplantation Society (TTS)-Vitallink initiative aims to support service development in these settings. A seminar and workshop was thus held at the TTS2024 Congress in Istanbul to identify and share the current challenges identified in different countries and regions seeking to establish effective deceased donor programs. This report provides a high-level summary of the first global workshop on deceased organ donation in LMICs, presenting key barriers faced by participants. It was designed to serve as a foundation for future actions, not a literature-based action plan or detailed analysis.

The program, titled "Strengthening Deceased Organ Transplantation Capacity in LMICs," was conducted during the final day of the Congress and consisted of three parts: a 75-min seminar, 60-min consensus workshop, and 4-wk follow-up discussion.

The Seminar: This presented the issues addressed in developing deceased organ donation in Ethiopia, Mongolia and Venezuela.

Consensus workshop: This used consensus workshop methods (CWM)[4] to foster dialogue and develop regional cooperation. CWM is a structured method to integrate diverse perspectives. LMICs were defined using the World Bank's 2022 classification. Session details were advertised within the Vitallink network prior to the congress and to congress delegates on site. Participants were grouped by regions (Africa, Asia, Middle East, Latin America, and others) to discuss common contexts. Each participant wrote challenges on cards, discussed them in regional groups, and shared key points with all participants through selected LMIC representatives. This consensus workshop had a minimum of 80 participants from 21 countries, predominantly from Asian LMICs; numbers are approximate as more were present at times but attended only part of the session.

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Open discussion: After the workshop, seminar and group discussion data were compiled into a report, reviewed by attendees and session facilitators. This open approach was designed to refine and validate the findings.

Data collection and analysis: Data were collected through card input and group presentations, then thematically grouped. Regional presentations were documented with notes and photos by group reporters. The data were organized by a certified facilitator, reviewed in open discussion, and finalized by the authors. Although high income countries (HIC) and upper middle income countries participation was not restricted, their involvement was limited (6% HIC and 9% upper middle income countries). LMIC perspectives were prioritized by framing HIC input as supplementary, whereas the card-based CWM enabled contributions from less vocal LMIC participants, ensuring the dominance of insights from LMICs.

COMMON THEMES IDENTIFIED ACROSS ALL REGIONS

Common themes (Table 1) were identified across all regions and ranked by frequency, with participants highlighting the critical need for:

1, Stable government. A stable government and supportive health ministry for legislation, making DDOT a public health priority, with patient support, was seen as critical. The absence of internal conflict/war was also essential. Without legal structures for deceased donation and clear brain death laws, sustaining programs was extremely difficult.
2. Financial barriers. Funding for DDOT infrastructure and patient support mechanisms were identified as key issues. Participants emphasized the need to establish national or regional financial support systems.
3. Social and religious influences. Many participants noted that cultural and religious influences often cause misunderstandings about brain death, creating major barriers to the acceptance of DDOT in their regions.
4. Effective communication. Coordination of communication between healthcare professionals, government agencies, and communities was noted to be essential. Participants discussed the need for good collaboration between stakeholders to facilitate the development and implementation of DDOT programs.
5. Training and professional development of donor management and coordination. A common problem was the shortage of trained professionals in DDOT. Participants noted insufficient healthcare providers, including physicians and coordinators, for brain death diagnosis, donor management, and transplant logistics.

UNIQUE REGIONAL ISSUES AND CHALLENGES

For group A (Africa), government instability emerged as a significant barrier, leading to inconsistent support from government agencies hampering the establishment of sustainable transplant programs (Table 2). In Sub-Saharan

TABLE 1.

Common Themes on Deceased Organ Donation and Transplantation

Category	Barriers
Legal structures to support deceased organ donation	Brain death law
	The absence of comprehensive legal frameworks
Government support	Political and governmental instability
	Lack of political prioritization and national policies for organ transplantation
	Unreliable or inconsistent support from government
	Lack of global initiatives, like the WHO Declaration, to guide healthcare policies
	Ineffective communication and lack of coordination between healthcare professionals, government agencies, and communities
Financial barriers	Lack of national or regional financial support systems
	Persistent economic crises in several Latin American countries
	Insufficient government funding for transplantation
Public awareness	Cultural influence
	Religious influences
	Pervasive public distrust
	Other challenges with brain death acceptance
	Misunderstandings and misconceptions about brain death
Human resources	Limited training opportunities for professional development
	Low physician and stakeholder interest
	Limited trained advocates and exchange of best practices
Infrastructure is limited	Limited specialized centers
	Lack of hospital-level initiatives
Geographical barriers	Islands create geographical barriers, posing significant challenges for organ transport and coordination
Issues related to the deceased organ donation process	Requiring extended family consent
Minority and/or disadvantaged group	Refugees and migrants face barriers to transplantation because of legal status and financial constraints

TABLE 2.

Region/group-specific barriers in deceased organ donation and transplantation

Group	Results
Group A (Africa)	● Legislation: Crucial for deceased donation programs. ● Physician and Stakeholder Interest: Key for success. ● Institutional: Start initiatives at the hospital level. ● WHO Declaration: Could help shape healthcare policies. ● Financial Investment: Needed for infrastructure and training. ● Training and Collaboration: Importance of trained advocates and sharing best practices.
Group B (South Asia)	● Cultural Barriers: Extended families in Asia require collective consent for organ donation, making it an emotional decision. ● Geographic Barriers: Countries with numerous islands complicate organ allocation and transport, often requiring commercial flights. ● Financial Barriers: Limited government support for transplantation, with only a small portion of dialysis patients on kidney waitlists. ● Public Awareness: Issues with the acceptability of brain death and trust in the organ donation system. ● Legal Barriers: a donor card may not be legally valid consent requiring family consent at the time of death.
Group C (Middle East, Pakistan, Mongolia)	● Communication and coordination between doctors, teams, and governments are needed. ● Misunderstandings about religious prohibitions are a problem. ● Political will and legal frameworks are necessary. ● Costs of transplants and medications are issues
Group D (South and Central America)	● Government: Issues include government instability and lack of prioritization for transplant programs. ● Financial barriers and lack of infrastructure are problems. ● Lack of education and public understanding of brain death
Group E (others)	● Government support and legislation are necessary, and financial support is crucial. ● Public awareness and support are needed.

Africa, there is a notable absence of legal frameworks addressing brain death. Additionally, cultural and religious barriers were prominent, with participants from African countries reporting misconceptions about DDOT, perceived by some as a violation of the human body's integrity after death.

Group B (South Asia) faced particular challenges in island nations, where geographical barriers hinder organ transport and coordination. Participants emphasized the need to establish local OPOs linked to the central OPO to facilitate regional procurement and overcome these barriers. It was noted that in many Asian cultures, the requirement for extended family consent for organ donation makes the process both lengthy and challenging.

Group C (Middle East) identified a lack of comprehensive legal frameworks to regulate DDOT that include unclear legal definitions of brain death and opportunities for organ donation as contributors to low rates of deceased organ donation.[5,6] Even where legal criteria for brain death are well defined, public acceptance of brain death remains limited. Widespread public distrust in the healthcare system and fears of organ trafficking were highlighted as critical concerns by this group.[7,8]

Group D (South and Central America) highlighted the challenges that the large numbers of refugees and migrants face in accessing transplantation services because of a lack of legal status and financial support.[9] Economic crises have also resulted in underfunded healthcare systems, hindering the development and sustainability of organ transplant programs.

Group E (other LIMCs) noted that governmental and political prioritization is critical, with some Central Asian countries not addressing DDOT as a health priority, leading to an absence of national initiatives and policies.

DISCUSSION

Economic inequalities in access to organ transplantation are a persistent global challenge in the field.[1,10] This was the first global meeting designed to address current LMIC-specific issues and initiate the formation of networking groups of professionals working to develop DDOT, based on geographical regions. By defining obstacles, this program was designed to define the critical issues for future initiatives and collaborations. It highlighted the urgency of strengthening DDOT in LMICs while laying the groundwork for participants seeking to develop DDOT programs to share experiences and strategies. Significant barriers to establishing DDOT programs were identified; however, the workshop fostered meaningful conversations and collaborations between participants.

Participants emphasized the key issues of need for national policies, legal frameworks, and adequate funding to develop transplantation infrastructure. Public trust in the healthcare system is essential for ethical and sustainable transplantation in LMICs, fostered by equity in access to the transplant system. Public awareness campaigns, tailored to align with specific cultural and religious contexts, were recommended to address misconceptions while building support for organ donation. Finally, participants underscored the importance of facilitating training programs for healthcare professionals in LMICs to enhance local capacity and expertise in transplantation practice.

Based on these discussions, key recommendations included developing regional networks, advancing policy, raising public awareness, expanding professional training,

leveraging resources from TTS, Vitallink, and other societies, and establishing a task force led by TTS and WHO with a particular emphasis on regional networks to foster cooperation and share best practices.

The WHO Consultations provided guiding principles,[11] the Santander Summit set strategic directions,[12-14] and regional initiatives such as the WHO SEARO workshop (2024),[15] ODISSeA,[16] and the Vitallink Academy[17] built capacity. These earlier global and international efforts—typically expert-led, invitation-based, and conducted independently with sufficient time—were critical in establishing ethical principles, policy frameworks, and long-term strategies for global transplantation. However, they placed a limited emphasis on LMIC perspectives. Similarly, International Society of Organ Donation Professionals seminars at its congresses included LMIC-related sessions, but these were predominantly seminar-style, with minimal participation by those working in LMIC, and thus are not directly comparable. At the national level, International Society of Organ Donation Professionals, Donation and Transplantation Institute, and Vitallink organized workshops that produced meaningful outcomes, but their scope and objectives were limited nationally, making them unsuitable for direct comparison with the present initiative.

Unlike previous workshops, this TTS 2024-Vitallink workshop was the first structured attempt to capture regional LMIC perspectives on barriers to deceased donation, generating practice-based insights and fostering empathy, networking, and commitment, thereby advancing the global transplantation discourse in a multilayered manner.

Held within the TTS 2024 congress, the workshop provided visibility and networking opportunities but was constrained by the absence of preregistration, targeted promotion, and key stakeholders such as patients and coordinators, as well as by incomplete participant identification and a 90-min limit. Nonetheless, preparatory meetings, card-based use of the CWM, and open discussion helped strengthen LMIC input.

Through this workshop, we achieved the goal of identifying common and region-specific barriers and establishing a meaningful foundation for future initiatives. These limitations highlight the importance of future efforts to broaden participation, streamline logistics, and increase impact. The next step is to set specific priorities, develop practical solutions, and build self-sustaining systems rooted in local capacity, with active participation from LMIC stakeholders.

At this stage, what is needed is the formation of a taskforce to coordinate targeted activities supporting LMICs,[13,14] through the active collaboration of WHO, TTS, Asian Society of Nephrology, International Society of Nephrology, Declration of Istanbul Custodian Group, Vitallink, and other organizations. This next step should begin with a workshop, coordinated by the task force, bringing together LMIC transplant teams, communities, health authorities, and governments with global experts to develop and implement a comprehensive, practical plan. By pooling expertise in strategic planning, training, network sharing, and fundraising, this joint initiative could accelerate the development and expansion of life-saving transplant programs in LMICs.

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