



Hans Jonas' Ethics of Responsibility and Organ Transplantation: A Philosophical Appraisal of Emerging Bioethical Challenges in Nigeria

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Abstract

Organ transplantation illustrates the ambiguity of modern medical technology: it can save patients from organ failure while creating new powers over vulnerable bodies, definitions of death and the allocation of scarce treatment. This article applies Hans Jonas' ethics of responsibility to emerging transplantation challenges in Nigeria. Using a critical-analytical and hermeneutic approach, it reconstructs Jonas' concepts of technological power, prospective responsibility, the heuristic of fear, human integrity and precaution, and relates them to Nigeria's National Health Act 2014, the national transplantation standards introduced in 2025, World Health Organization principles and contemporary scholarship. Consent remains morally inadequate when poverty, dependency, limited information and institutional opacity shape donation. Jonas' framework reveals four connected threats: treating the poor body as a repository of spare parts; prematurely instrumentalizing neurologically impaired persons; unequal access to transplantation; and adopting xenotransplantation, genomic modification, artificial-intelligence allocation and bio-printed organs without long-term governance. Responsible innovation must therefore address present suffering while protecting future life. The article proposes an anticipatory model of transplant governance for Nigeria based on independent donor advocacy, separation of death determination from organ procurement, transparent allocation, a mandatory donor registry and audit system, lifelong donor monitoring, public

accountability and staged oversight of emerging technologies. Jonas' enduring contribution is to shift transplantation policy from mere permission towards responsibility for its foreseeable consequences.

Keywords: Hans Jonas; ethics of responsibility; organ transplantation; Nigeria.

Introduction

Transplantation of organs is one of the most apparent applications of the knowledge of science to give new life. A healthy kidney can free a patient from dialysis; a healthy heart or liver transplant may save a patient's life. The same practice requires access to another body; however, it also poses problematic questions of consent and death and is a practice in systems that are limited, unequal, discretionary and technologically uncertain. The ethical implications may thus not be exhausted by the object of the act, the salvation of the recipient. It also needs to be evaluated based on the conditions governing the obtaining, allocation, implantation and surveillance of organs (WHO Regional Office for Africa, 2020, pp. 1–2). The ethical problems of consent, death determination and unequal access are heightened in Nigeria. Although kidney transplantation has been carried out in a few centres with favourable clinical results, the programmes are still limited due to high costs, inadequate infrastructure, reliance on living donors, low awareness amongst the population, and disparate access. Recent studies in Nigeria indicate that medical knowledge is not the only factor influencing the willingness of potential donors to donate their organs, as decisions are also influenced by relational, religious, psychological and socio-cultural factors. In such an environment, personal autonomy cannot be assumed. People might sign a consent form under economic or family pressure, without understanding the risks, or because they fear abandoning a sick family member (Igbokwe et al., 2023, pp. 3–12; Mamven et al., 2025, pp. 2–10; Okafor, 2016, pp. 2–6; Olawade et al., 2025, pp. 2–10).

In addition, Nigeria's legal and policy landscape is evolving. Part VI of the National Health Act 2014 covers the removal and use of tissue, blood, blood products and gametes, limits remuneration for persons providing tissues and gametes, and defines the roles of authorised professionals. In March 2025, the Federal Government introduced standards and guidelines for organ and tissue transplantation services, emphasising donor protection, patient safety, institutional certification, compliance, transparency and the establishment of a national database. This development is significant because legal norms become protective when they are operational, independently enforced, publicly accountable and capable of addressing emerging technologies (Federal Republic of Nigeria, 2014, secs. 48–53; Federal Ministry of Information and National Orientation [FMINO], 2025, paras. 4–9).

Hans Jonas offers particularly fruitful guidelines for this judgment. The principle of his ethics starts from the changed sense of human action in technological civilization. The range, length and finality of modern technology increase the distance, duration and irrevocability of the decisions that have to be taken, and not only immediate intentions, but also the far-reaching and accumulative effects have to be considered. Well before the current discussions about the market for transplant organs and genetic engineering of animal organs, Jonas predicted that medical development would make people mean, and pointed out that the convenient definition of death for the purpose of getting viable organs was incorrect. This article is against technology rejection and neither therapeutic enthusiasm nor a boundless enthusiasm. It promotes responsible innovation – medical action directed toward life, bounded by the human person, attuned to vulnerability and ethically accountable for potential harm (Jonas, 1969, pp. 219–247; Jonas, 1984, pp. 1–24).

The central question is: how can Jonas' ethics of responsibility inform a philosophically defensible transplant regime in Nigeria amid organ scarcity, poverty, questionable consent, debates over brain death, commercial pressures and emerging biotechnologies? The aim is to explain Jonas' principle of responsibility; explore the moral framework of organ transplantation; analyse current transplantation problems and regulation in Nigeria; and recommend ethically justifiable reforms. The paper argues that responsibility in transplantation should be 'longitudinal'. It begins at recruitment, continues through donation and allocation, and extends to lifelong donor and recipient outcomes, public trust and the future effects of innovation (Jonas, 1984, pp. 21–24, 38–39).

Conceptual Clarifications

Transplantation of organs, tissues or cells between people is the process of moving an organ, tissue or cells from a donor to a person who has lost the organ or tissue. Donation can be therapeutic, research related, living, or deceased, directed, or non-directed. There is a need to differentiate donation from commercialisation, organ trafficking and trafficking in persons for organ removal in ethical assessment. The Declaration of Istanbul clearly outlines what organ trafficking and transplant tourism are, and highlights issues of coercion, illegal removal, profit-making, and reducing the care and provisions in the local community. Such differences are significant because the language used, for instance “donation” can mask a transaction which is constructed through poverty (Declaration of Istanbul Custodian Group, 2019, p. 218–219; World Health Organization [WHO], 2010, pp. 5–10).

Responsibility, as Jonas understands it is not just about apportioning blame for some past crime. Its care taken in advance for that which has been given to us. The prototype is the "one way" obligation of a parent to a dependent child, the unprotected person calling for the action of the protected person before the

"reciprocity" is possible. Surgeons, hospitals, brokers, regulators and data systems have more power over the recipient, donor and the public, and hence greater responsibility in transplantation (Jonas, 1966, pp. 1–20; Jonas, 1984, pp. 90–108). Here, emerging bioethical challenges are new or growing moral issues arising from expanding scientific capacity and changing social conditions. They include gene-edited xenotransplantation, organ-preservation technology, artificial-intelligence-driven allocation, regenerative medicine and bio-printing, cross-border transplantation, genomic databases and new forms of digital surveillance. Although these technologies are not yet routine in Nigeria, their emergence requires safeguards before commercial or clinical momentum makes effective governance more difficult (Böhmig et al., 2024, pp. 2–8; Tao et al., 2025, pp. 111–118).

Ethics of Responsibility (Hans Jonas)

Jonas' point of departure in developing an ethics for the technological age is the transformation of human action through technology. Previous moral theories tended to assume that the consequences of action were confined in space and time and that nature was stable. Technological power unsettles those assumptions because it can alter ecology, biological inheritance, human health and the future choices of people who did not participate in the original decision. Jonas therefore reformulates the moral imperative: action should remain consistent with the continued existence of genuinely human life. This imperative brings the future into moral evaluation without excluding present obligations (Jonas, 1984, pp. 1–24). Three features of Jonas' ethics are critical here. First, responsibility increases with causal power. Surgeons authorised to remove organs, institutions permitted to approve donations and states empowered to establish allocation systems bear responsibilities that others do not have. Secondly, uncertainty does not remove duty. When a decision may have grave or irreversible consequences, responsible judgement takes seriously plausible adverse outcomes. Thirdly, the concern is not merely the survival of the organism, but the preservation of conditions in which recognisably human agency, dignity and freedom can endure (Jonas, 1984, pp. 90–108).

Jonas' "heuristic of fear" often is interpreted as a call to fear, panic. It can be an epistemic discipline when read correctly—success stories may hide values that are seen as a threat upon the promise of technology. Innovation should not be barred by fear of exploitation of the donor, manipulation of the diagnostic or other fears of zoonosis, genetic spill over or algorithmic discrimination. It should require evidence, protect the individual, and be reversible if possible, and be prepared for the institution prior to exposure. The principle of precaution is strongest when the potential harm is considered serious, the victim could not say no, and the remedy is hard (Jonas, 1984, pp. 26–31). Jonas' bioethical writings give this general theory a bodily emphasis. In 'Philosophical Reflections on Experimenting with Human

Subjects', he challenges the notion that science has unlimited claims upon individuals. Consent has greater moral meaning when participation relates to a cause that the subject can genuinely make his or her own; a signed form alone does not establish morally adequate consent. He also distinguishes keeping a terminally comatose patient alive for organ harvesting from allowing the patient to die. Given the 'fuzzy' boundary between life and death, he proposes a 'maximal' rather than a merely convenient standard before destructive intervention (Jonas, 1969, pp. 219–245). Jonas' position has been criticised as too restrictive in light of contemporary neurological criteria and the social value of transplantation. Since 1969, death-determination methods have advanced, and clinical protocols now seek to establish the irreversible loss of brain function. Nevertheless, his deeper institutional concern remains relevant:

A criterion of death must be justified independently of the need to obtain viable organs. When procurement incentives influence death determination, public trust is endangered even if the clinical criterion would otherwise be acceptable (Jonas, 1969, pp. 243–245).

Accordingly, the present argument does not reject every neurological determination of death; it retains Jonas' warning that transplantation needs must not determine whether a person is declared dead. Jonas' framework has a few drawbacks. It tends to minimise the moral certainty of harm in the here and now, such as those of patients who do not receive organs, in the light of future catastrophe. It uses the language of "genuine human life" which is open to ableist interpretations in regard to disability. It provides also less detail to ensure fair allocation between competing claimants than theories of justice do. For this reason, the following appraisal of Jonas as a governing orientation – power, vulnerability, precaution and futurity – is supplemented by autonomy, justice, solidarity and human-rights norms (1984, pp. 21–24, 38–39).

Review of Related Literature and Normative Frameworks

The principle of autonomy, beneficence, non-maleficence and justice are generally used to organize transplant ethics. All of these principles necessitate voluntary informed consent, clinically appropriate benefit, the avoidance of unintended harm to the donor and fair distribution of the organs. The WHO Guiding Principles include institutional requirements - organs should be donated voluntarily, without any commercial transactions, allocation should be based on clinical and ethical standards, and there must be transparency, safety and traceability. In the Declaration of Istanbul Custodian Group 2018, organ trafficking and transplant tourism are once again denounced and national self-sufficiency and equitable access are reiterated (Decision of Istanbul Custodian Group 2018, p. 14). 218–219; WHO, 2010, pp. 5–10).

Writing in African contexts, the interaction of barriers is always present, and the single ethical fault is never mentioned. A region-wide WHO evaluation revealed the following issues: weak legal frameworks, limited transplant capacity, services are centralized in urban settings, poor coordination, lack of public awareness, and lack of follow-up structures. Recent continental review confirms the same conclusions with issues of high cost, lack of specialized personnel, limited centers, cultural and religious issues, infectious and non-communicable disease burden and risks of exploitation. These conditions demonstrate the role of transplant ethics in the health system ethics (Olawade et al., 2025, pp. 2–10; WHO Regional Office for Africa, 2020, pp. 1–3).

The Nigerian scholarship record is a record of ability and weakness. Based on available evidence, there are good outcomes of patients and grafts; surgical complications are limited; there is a concentration of expertise; limited access; unresolved concerns about consent and commercialisation; and an education program and psychosocial support are needed for donors (Ajayi et al., 2016, pp. 125–128; Igbokwe et al., 2023, pp. 3–12; Mamven et al., 2025, pp. 2–10; Okafor, 2016, pp. 2–6). This is thus a major normative development for the standards for 2025. The institutions that they will be mapping and certifying, donator and patient safety, ethics, compliance and a registry are very similar to international recommendations. However, there is little evidence published on implementation. The need for a philosophical assessment is thus the need to differentiate from policy adoption to governance effectiveness. The indicators of institutionalization of responsibility are tests of the coverage of the registry, the independence of the audit, the application of sanctions, follow-up of donors, transparency of allocation and public reporting (FMINO, 2025, para.). 4–9).

The emergence of new technologies exacerbates this problem. Experimental pig to human transplants have been made, such as kidney and liver transplants, by using gene editing. Such interventions can increase availability of products, but raise concerns about rejection, animal welfare and cross-species infection, as well as about the modification of the animal's genome, the need to monitor recipients, and intergenerational public health impacts. While AI can enhance organ matching, logistics, and other processes, opaque models can replicate the inequities of the data from which they are trained. While these new technologies like bioprinting and regenerative medicine could minimize dependence on donors, who will have access to these new organs in the future, and who will afford them will become new questions. However, Jonas focuses on the whole system of innovation but does not only look at the success of the procedure at the first attempt (Böhmig et al., 2024, p.). 2–8; Tao et al., 2025, pp. 111–118).

Methodology

The study is done in a method of critical analytical and hermeneutic approach. It decodes some of Jonas's key writings on the responsibility of technology, human experimentation, death and medicine, and assesses their ideas in the context of transplantation norms and an African context. Analysis is not empirical, but normative; results mean conclusions that the analysis draws as a result of a reasoned comparison of concepts, laws, policies and published evidence, and not as a result of new clinical observations (Jonas, 1969, pp. 219–247; Jonas, 1984, pp. 1–24). The sources were grouped into four; namely Jonas' original writings, peer reviewed interpretations and critiques, authoritative international transplantation instruments and Nigerian legislation, government policy and clinical or socio-ethical studies. Official texts and more recent and peer-reviewed literature were prioritised, whilst older texts were included when they were foundational. The principles included in the evaluative criteria were: respect for persons, protection of vulnerability, proportionality of risk and benefit, distributive justice, transparency, precaution under uncertainty and institutional accountability (WHO, 2010, pp. 5–10).

Results, Discussion and Philosophical Evaluation

Consent Beyond the Signature

One conclusion of the analysis is that 'formal consent' is also required, but not sufficient. Living donation makes for an unusual ethical situation – a healthy person undergoes surgery and permanent sacrifice for the welfare of another. Crisis can be the occasion for such sacrifice in Nigeria, but it can also mask coercion. Refusal can be seen as betrayal for a poor relative, deferring to the authority of the family for a woman or younger family member, or for an unrelated donor, it can be interpreted as gratitude. So the ethical issue here is not just whether or not a form was signed, but whether the donor had decision making capacity, material independence, accurate information, time, and privacy, and whether they had a genuine option to refuse (Mamven et al., 2025, p. 5–10).

The burden of proof is shifted with Jonas, making the responsibility of the user more difficult. The institution where the transplant takes place should prove the authenticity of the consent and should not leave the responsibility to the injured donor to prove that he or she was coerced. Therefore, moral requirements are for independent donor advocates, verified cooling-off periods, separation of donor and recipient teams and interpreter support. Compensation of expenses should not leave the donor worse off than he or she would be without donating the organ, but payment for the organ itself should still be banned due to the unequal bargaining power that places the donor in a position of bodily vulnerability and makes it a good

that he or she is willing to supply. (Federal Republic of Nigeria, 2014, secs. 48–53; Jonas, 1984, pp. 90–108; WHO, 2010, pp. 6–8).

The 2025 Nigerian framework's donor protection focus is welcome, but there has been a need for continuity in Jonas. Responsibility is for lifelong follow-up for physical and psychosocial outcomes, not just for perioperative clearance. A national donor registry needs to be a repository for complications without stigmatizing donors, offer options for complaints, and result in institutional review when complications occur that diverge from standards (FMINO, 2025, paras. 7–9; WHO, 2010, pp. 8–10).

Poverty, Commodification and Organ Trafficking

Secondly, organ commercialisation is not a crime in isolation at the fringes of a benign system. It is an inevitable risk when a high demand for organs is combined with poverty, lax oversight, high mobility in the elite, and the private medicine market. The evidence from around the world so far suggests that organ scarcity is a factor that contributes to trafficking for organ removal, and the Declaration of Istanbul considers exploitation as being incompatible with ethical transplantation. A Jonasian appraisal makes the following question: which future practices invite the following arrangements? The absence of registration of brokers, the existence of unverifiable relationships, cash remuneration or a cross-border pathway for recipients of the recipients normalises the poor body as a resource for the rich (Declaration of Istanbul Custodian Group, 2019, p. 218–219; Olawade et al., 2025, pp. United Nations Office on Drugs and Crime (2024), paragraph 3-6. 3–8).

Nigeria should therefore make a clear distinction between the gifts of charity, reimbursements, the banned purchase of girls and trafficking. Any monetary transactions related to donation are recorded and traceable. Unrelated living donation needs more, rather than less, hostile scrutiny because it is possible for true altruism to exist, but there is a greater risk of “commerce disguised”. The hospitals should be held responsible for any suspected brokerage and the whistle-blowers and vulnerable witnesses should be protected. Sanctions should be targeted against: Donors who may be exploited; Recruiters, brokers, professionals and institutions who create or benefit from the chain (Federal Republic of Nigeria, 2014, sec.53; WHO, 2010, pp. 6–8).

Jonas' approach also calls into question a "criminal law" solution. Social policy should be adopted for prevention of exploitation, namely access to renal prevention, dialysis, health insurance, deceased donation system and public transplantation service. Desperate end stage patients and destitute potential donors create the conditions for an illicit exchange in a society that lets them grow desperate. The conditions that could cause harm are to be changed if they could be changed before

the harm takes place, which is what prospective responsibility is. (Olawade et al., 2025, p. WHO Regional Office for Africa, 2020 pp. 2–3).

Death Determination and the Integrity of the Donor

The third one relates to deceased donation. Perhaps Jonas' most direct contribution to transplant ethics was his criticism of defining death for procurement. His main principle is institutional, the necessity for organs should not be the deciding factor on whether somebody is alive or not. When scientifically proven and widely used, neurological criteria can be ethically justified, but only if the criteria are independent of the utility of the transplant (Jonas, 1969, pp.). 243–245). The evolving transplantation system in Nigeria should include a nationally-standardized protocol for allocation of death, qualifications and confirmatory procedures and documentation that is subject to audit. The clinical team (determining death) should have no involvement with the procurement and recipient teams. Families should be given clear information about the difference between withdrawing treatment, determining death and donating. Even if the declaration of death is defective consent to donation will not suffice (Jonas, 1969, pp. 243–245; WHO, 2010, pp. 8–10).

A prudent policy should not suggest that all bodily activity should stop before donation as this would result in the demise of most potentially viable donations from dead bodies and further avoidable deaths of recipients. The better application of Jonas is procedural and epistemic – to employ validated criteria, to not have a conflict of interest, to admit uncertainty in-the-moment, and never to let standards of care go to waste in order to increase organ yield. This reading continues his focus on the integrity of the body and an acknowledgement of the current ability of medicine to diagnose irreversible loss of brain function (Jonas, 1969, pp. 243–245).

Allocation, Inequality and Public Trust

The fourth one is that allocation justice cannot be divorced from procurement ethics. The fourth is that procurement ethics is inseparable from allocation justice. Even an ethically obtained organ can be subject to an unjust system if the access to the organ is dependent on the wealth, the political connections of the person, his/her place of living or his/her affiliation with a hospital. The highly urbanised nature of Nigeria's transplant experience and the rigorous out-of-pocket expenses can lead to the possibility of transplantation becoming a national, but localised practice. Such a worry for the future of human life should, then, be accompanied with a public moral ethics which has the same moral value (Olawade et al., 2025, p.). WHO Regional Office for Africa, 2020 pp. 2-7 2–3). There should be a national waiting-list and allocation system that is based on published clinical criteria, urgency, compatibility, waiting time and on ethically defensible tie-breakers. A person's clinical priority should not be the determining factor when it comes to the ability to pay. If there are

restricted resources, decisions and exclusions should be justifiable and subject to appeal. Data to be published for the proposed national registry should include de-identified information about donation, allocation, outcomes, adverse events, as well as information about institutions' performance. Transparency is not 'ancillary publicity', but rather the means for the public to evaluate the responsible use of entrusted power (WHO, 2010, pp. 8–10).

AI tools can help with matching and forecast graft longevity, but should be open to challenge. They should be separately validated on their training data, on their performance on Nigerian populations, on their error rates and on their distributive effects. An unreviewed score should not be a barrier to being included in a patient. Jonas' principle assigns responsibility not the algorithm itself, but to those who are using the model, as if it were a moral agent (Jonas, 1984, p. 21–24, 90–108).

Xenotransplantation, Gene Editing and Bio-printed Organs

The fifth answer is that local adoption of emerging organ technology's needs 'anticipatory governance'. Experimental techniques show quick advances in science, with a promise of less organ scarcity with edited pig organs. But xenotransplantation poses a set of unique private benefit and public risk situations. A recipient can embrace uncertainty, but contacts and populations who did not consent will be impacted if they are infected by infectious transmission. Conditions of participation can include lifelong monitoring, limitation on blood donations, sharing of data, reproductive counselling, as well as swift outbreak responses (Böhmig et al., 2024, pp. 2–8; Tao et al., 2025, pp. 111–118). These obligations downstream come into view through a Jonasian heuristic of fear. Does not imply that the use of Xenotransplantation is wrong in itself. It needs to be tested in a series of trials, have a clear ethics committee, have national biosafety capacity, include animal-welfare safeguards, have long-term monitoring and have clear guidelines on the crossing of data and biological samples. Nigeria should not be allowed to be a "haven of safety" for intervention which is not being considered in other countries, nor should it reject having access to good science. It should be involved in regional and international cooperation and at the same time, its involvement in the adoption should be matched to regulatory and laboratory capacity (Jonas, 1984, pp. 26–31).

Bio-printed and stem-cell derived organs might be perceived as having a more ethically 'pure' profile, as they decrease the need for human donors. However, they pose issues of genetic-source consent, ownership of tissues, patent control, cost, quality control, and inequitable access to tissues. If these organs become only the property of the elites and become scarce, it is not a solution, it is a transformation. The political economy of innovation is part of responsibility along with laboratory safety. Fair-access conditions and technology transfer should be included in public funding agreements, if possible (Jonas, 1984, pp. 21–24).

An Appraisal of Jonas on Transplantation

Jonas' most convincing argument is his discussion of the moral imbalance between technological bodies and fragile bodies. His notion that every advance in medical ability is a advance in progress corrects the optimism that every advance in medical ability is a progress. It also reveals the reason that compensation for the harm done in the past is not a sufficient remedy for irreparable damage. The principle, when applied to Nigeria, requires greater institutions – precisely because individual consent occurs in an unequal social relationship (Jonas, 1969, p. 219–245; Jonas, 1984, pp. 90–108). However, the responsibility might be skewed towards indefinite postponement. Policy needs to safeguard lives of patients who are dying from organ failure also. Over protection can keep institutions innocent, and save lives. The “morally good” one is proportionate precaution: the extent of the harm and the fact that it is irreversible dictate the amount of evidence and oversight that is required, and the present harm counts as a morally relevant harm. The following interpretation gives the word ‘carefully’ to the work ‘carefully governed innovation’, and it recognizes that Jonas' work is best read in this light (1984, pp. 26–31).

African relational ethics should be added to Jonas as well. Families/Communities are often the expression of personhood in donation, not individual choice. Its relationship can enhance the sense of solidarity, but must by no means take away from the individual donor's bodily power. This means that an autonomous refusal ought to be safeguarded by a Nigerian transplant ethics, and that a communal duty of care must also be recognised. Unforced solidarity in fair institutions rather than forced sacrifice in the name of culture (Mamven et al., 2025, p. 5–10).

Recommendations

The 2025 transplantation standards should be fully implemented and Nigeria needs an independent national body with statutory authority that has inspection powers and clear accreditation criteria, sanctions and an annual public report. There should be a secure national registry for all transplants, donors, recipients, and outcomes which should have traceability and privacy protections (FMINO, 2025, paras.). 7–9; WHO, 2010, pp. 8–10). Independent advocacy, confidential psychosocial (and financial) assessment, verified informed consent in an understandable language, a cooling-off period, freedom to revoke consent without informing the recipient, reasonable reimbursement of expenses, and lifelong health monitoring are all essential components of living-donor advocacy. Enhanced multidisciplinary review (Mamven et al., 2025, pp. should be performed on unrelated and cross-border donations. 8–10; WHO, 2010, pp. 6–8).

A standard, nationwide procedure should apply to death determination. All clinicians who make a decision about death should be independent of the

procurement and the recipient teams, conflicts must be recorded, and the families should be informed. The diagnostic criteria should not be based on organ yield (Jonas 1969, p. 243–245). The rules used to allocate should be published at national level and be clinically based. There should be a clear waiting list, audit trail and appeal route and regular equity review to prevent favouritism for wealth, status, location, institutional affiliation etc. Transplantation and medicines (post-transplantation) should be made available to more people through public funding and public insurance (WHO, 2010, p. 8–10).

The introduction of emerging technologies should be via a staged and registered process in Nigeria that is associated with national research-ethics, biosafety, data-protection and pharmacovigilance protocols. There are obligations in xenotransplantation for zoonotic surveillance and long-term recipient obligations, in artificial-intelligence allocation for local validation, explainability, human review and bias audits and in bioprinting of rules regarding source consent, ownership, quality and fair access (Böhmig et al., 2024, pp. 6–9; Tao et al., 2025, pp. 115–118). Last but not least, there should be continuous public education by the government, professional organisations, patient organisations, religious bodies, and civil society about donation, brain death, trafficking and donor rights. Chronic transplantation requires a trustable commitment to public engagement, not just an expert pronouncement, since important policy decisions must come before it (Mamven et al., 2025, pp. 8–10; WHO Regional Office for Africa, 2020, pp. 2–3).

Conclusion

Organ transplantation is not only a gift of life, but also a threat to the integrity of the body. That is an area where there are a therapeutic hope and a technological power, but there is also scarcity of it. Hans Jonas' ethics of responsibility makes clear that the moral result of these meetings is not only that they are used to achieve beneficial outcomes but also that they can lead to foreseeable, delayed, systemic and irreversible harm – the responsibility of those who have a power to act is not just for intended benefits but also for foreseeable, delayed, systemic and irreversible harms (1984, p. 1–24). In Nigeria, it is up to clinicians, hospitals, regulators, law makers, technology developers and society to fulfill this role. The National Health Act 2014 and the standards that are to be implemented in 2025 offer key foundations but ethical legitimacy is contingent upon implementation: on giving real consent, on avoiding the commodification of individuals, on an independent determination of death, on a fair allocation of organs, on tracing the origins of the organs, on a follow-up of donors, on transparent data and on anticipatory oversight of new technology (Federal Republic of Nigeria, 2014, sec. 48–53; FMINO, 2025, paras. 4–9).

The biggest takeaway Jonas has is that "capacity does not give permission. But it is not the denial of progress. It is the orderly transformation of energy into

lovingness. A system of transplantation in Nigeria based on this will not only be judged on the number of grafts carried out but on the fact that donors will still be protected, recipients treated fairly, institutions being trustworthy, and at the same time innovation will still keep the conditions for life in a genuinely human way for those who are present and those yet to come. 21–24, 90–108).

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