PHILOSOPHICAL FOUNDATIONS OF HEALTH ADMINISTRATION: TOWARD AN ONTOLOGICALLY PLURALIST, EPISTEMOLOGICALLY INCLUSIVE, AND ETHICALLY SYSTEMIC GOVERNANCE FRAMEWORK

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Abstract
Contemporary health administration increasingly confronts governance failures that cannot be attributed solely to resource deficits or managerial inefficiencies. This article argues that such failures are rooted in unresolved philosophical misalignments, specifically the absence of explicit ontological, epistemological, and ethical foundations in health system design. This study aims to systematically map the interrelationships among ontology, epistemology, ethics, and governance within health administration, and to identify the structural breaks in this chain that produce predictable policy failures. A narrative synthesis of Scopus-indexed literature published between 2015 and 2024 was conducted, encompassing studies on health philosophy, clinical epistemology, bioethics, digital health governance, and learning health systems across diverse global contexts. Four critical findings emerge. First, ontological incoherence, particularly the unreflective adoption of biomedical reductionism distorts quality measurement by optimizing for what is measurable rather than what is genuinely valuable. Second, epistemological monism in health professional education produces practitioners ill-equipped to integrate empirical, normative, and experiential knowledge, a deficit intensified by the advent of AI-based clinical decision support systems. Third, classical bioethics, while normatively valid, is architecturally insufficient to manage moral responsibility in distributed, technology-mediated, and systemically complex health organizations. Fourth, existing health governance evaluation tools lack the philosophical depth necessary to assess governance quality in its full normative and contextual dimensions. Health administration must be reconceptualized as a discipline explicitly grounded in philosophical foundations. A unified framework that is ontologically pluralist, epistemologically inclusive, ethically systemic, and adaptively governed is proposed. This framework is not a universal prescription but a normative structure enabling contextual adaptation while maintaining moral coherence. Implications are drawn for policy design, health professional education, AI ethics in healthcare, and governance reform in transitioning health systems, with particular relevance for Indonesia and the Southeast Asian context.

Keywords: health ontology; clinical epistemology; bioethics; health system governance; eHealth; artificial intelligence in healthcare; learning health systems; philosophical foundations of health administration.

Introduction

Health is not just a biological condition that can be measured through clinical parameters. It is a philosophical construct that reflects how a society understands human beings, values, and collective responsibility. When health systems fail both in the uneven distribution of vaccines, failures in patient data governance, and resistance to the adoption of digital technologies, they are rarely rooted in budget or infrastructure shortages. More often, the root is in philosophical ambiguity: the definitions of health used are not coherent with the ethical standards applied, and the two are not systematically connected to the prevailing governance framework.

The debate about what is "healthy" has been going on since Aristotle viewed mental health as part of a moral virtue, to Kant who linked health to the cognitive capacity and responsibility of the state to maintain it (Sell, 2024; Trnavac, 2024). The WHO model that defines health as a state of full physical, mental, and social well-being was once a global consensus, but is now increasingly criticized for being too static and incapable of capturing the adaptive dimensions of humans in the face of environmental changes and ecological crises (Menatti, Bich & Saborido, 2022). Emerging alternatives ranging from metaphysical process approaches that view health as a dynamic of continuous adaptation (McLaren, 2019), to holistic models that integrate spiritual and communal dimensions as in the Ayurvedic tradition (Porter et al., 2023) show that ontological pluralism is not an anomaly, but rather a reality that modern health administration must face.

The problem is that this pluralism is rarely explicitly acknowledged in policy design. Health quality measurement systems, for example, still operate under a single ontological assumption without realizing it. Lillrank (2015) distinguishes between small quality that focuses on conformity with established standards and big quality that departs from patient expectations as a design point. Both are not just about measurement techniques, but reflect two different ontologies about what should be optimized in the health system. When a hospital uses

small quality indicators to evaluate services that actually require a big quality approach, the results are not just inaccurate, they are philosophically misleading.

This complexity becomes more layered when epistemology enters the picture. Clinical decision-making is never purely empirical. It is always a mixture of scientific evidence, clinicians' personal experiences, and contextual factors that cannot always be codified (Raman & Sullivan, 2024). Pillay and Pillay (2023) show how power dynamics in healthcare institutions visibly shape and often distort clinical reasoning processes. Meanwhile, the presence of artificial intelligence as a new actor in medical decision-making brings with it an epistemological challenge that has not yet been fully mapped: when an algorithm recommends a diagnosis, what kind of knowledge is being used, and who is morally responsible for the recommendation? (Khosravi et al., 2024; Maris et al., 2024).

It is at this point that health ethics meets the question of governance. The four classic bioethical principles of autonomy, beneficencence, non-maleficence, and justice have long been a reference in health management (Tamășan Bakri, 2016; Pagani, García & Claudot, 2022). But the operationalization of these four principles in an increasingly complex, decentralized, and technology-based system raises new questions that conventional bioethics cannot answer. The global distribution of COVID-19 vaccines, for example, starkly exposes the tension between the principle of justice at the philosophical level and the reality of production capacity, implementation power, and geopolitical interests at the practical level (Peacocke et al., 2021; Wouters et al., 2021). Ethical frameworks exist, but the governance mechanisms that are supposed to bridge them with real policies are inadequate.

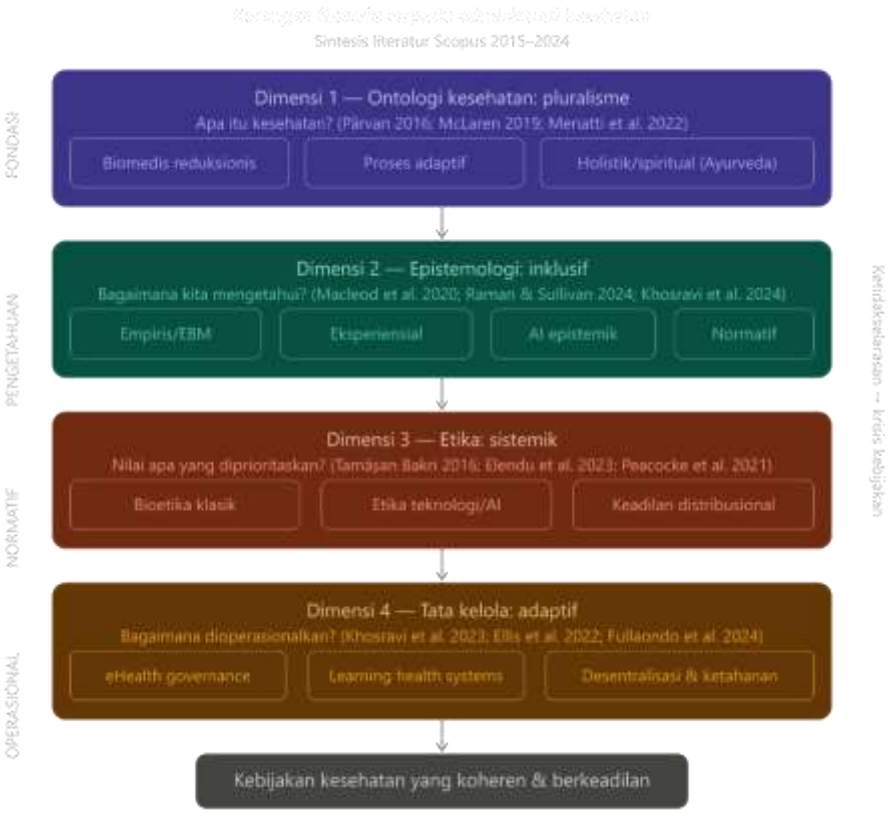
This governance crisis is not only happening on a global scale. In Indonesia, similar challenges are present in the form of fragmentation of the eHealth system, the gap in technology adoption between primary health facilities in urban and rural areas, and the lack of clear regulations on the ownership and use of patient health data. Studies from the Southeast Asian context including research on eHealth adoption in Indonesia showing that user trust is strongly influenced by the perception of public value and system reliability (Arini et al., 2024) confirm that the governance model developed in Europe cannot simply be transplanted without philosophical and contextual adaptation.

An interesting paradox arises here that as the international literature increasingly recognizes the importance of integrating philosophical foundations in health administration, most of the resulting governance models remain techno-managerial and ignore the ontological and epistemological roots of the problems they seek to solve. A systematic review of health system governance evaluation tools found that existing instruments have not been able to fully capture the complexity of governance (Khosravi, Mosadeghrad & Arab, 2023). Learning Health Systems, which are now the ideal model for evidence-based health system development, surprisingly rarely explicitly integrate ethical and governance frameworks in their design (Ellis et al., 2022).

This gap is not merely academic. It has real consequences, namely that health systems that do not have a coherent philosophical foundation will continue to produce reactive policies, easily fragmented governance, and responses to crises such as pandemics that are not systemic. Fullaondo et al. (2024) document how the Basque Country in Spain was able to significantly transform its health system during the COVID-19 pandemic precisely because it has a clear philosophical orientation: integration, responsiveness, and digitalization treated as values, not merely as tools.

This article argues that it is time for health administration to be understood and practiced as a discipline that explicitly leans on a philosophical foundation rather than as a techno-managerial domain that occasionally borrows the language of ethics for the purposes of legitimacy. By synthesizing the Scopus-indexed literature from 2015 to 2024, this article seeks to systematically map how the relationship between ontology, epistemology, ethics, and health governance works and where the chain of relationships is broken resulting in predictable policy failures.

Theoretical Foundations



A. Health Ontology: From Reductionism to Pluralism

The most fundamental question in the philosophy of health is the ontological question: what exactly is health? The answer to this question is not purely speculative, but rather directly determines how the health system is designed, what is measured, and what values are prioritized in policy.

The biomedical tradition that dominated the 20th century placed health as the absence of biologically verifiable disease. This model has operational power that cannot be ignored: it results in measurable standards, replicable protocols, and remarkable advances in medical technology. Yet as an ontological foundation, it holds serious limitations. Pârvan (2016) argues that the Cartesian dualism that underlies the biomedical model of the firm separation between mind and body results in clinical practices that systematically ignore the personal dimension of disease. He proposes the concept of monistic dualism as an alternative: an ontology that recognizes the organic unity between the mind, body, and the patient's relational context as the basis for truly human-centered care.

A different approach but moving in a similar direction is offered by McLaren (2019) who develops a metaphysical process framework for understanding health. In this view, health is not a static condition that a person has or does not have, but rather a dynamic process that involves self-healing capacity, connectedness to the environment, and sustainable adaptation. The relevance of this framework is felt immediately when dealing with chronic diseases and ecological crises, where a model of health based on "disease elimination" is definitively inadequate.

From a different point of view, Sell (2024) reconstructs the Kantian concept of health that places health as an interaction between mind and body, with the implication that the state has an active responsibility to maintain the cognitive capacity of its citizens as part of the moral obligation of government. Meanwhile, Silva (2024) traces the ancient philosophical tradition that understands mental health as an integral part of ethical virtues, a perspective that challenges the modern dichotomy between mental health and moral health.

Interestingly, Menatti, Bich and Saborido (2022) show that even adaptive models have gradations. They distinguish between the adaptive adaptation of organisms to the existing environment and the adaptive generative capacity to create new responses to challenges that have never been faced before. The implications for health policy are quite radical: health systems that are only designed for adaptation will always be one step behind the crisis.

Saad and Prochaska (2020) offer an ambitious synthesis by placing health as a universal value within the framework of a broader philosophy of life. In their view, health is not an end in itself, but rather a condition that

allows people to live meaningful lives. This position has direct consequences for the way health systems prioritize interventions: not just prolonging life, but enabling a substantive quality of life.

This ontological pluralism is not just intellectual property. It creates real challenges for health administration. When a national health system operates under ontological assumptions that are never explicitly articulated, the resulting policies tend to be inconsistent: using holistic language in vision documents but applying reductionist indicators in performance measurement. Lillrank (2015) captures this tension with precision through the distinction between small quality and big quality in healthcare. Small quality operates on the logic of conformity with pre-set standards, while big quality departs from patient expectations and experiences as the real design point. They are not just two different technical approaches, but rather two different ontologies of what should be optimized.

Bilbao (2023) deepens this discussion by arguing that building a coherent philosophy of life and disease requires serious epistemological and axiological work on its basic concepts. Health and disease are value-laden constructs, and ignoring these dimensions of value in systems design will result in policies that unconsciously reproduce certain ontological biases.

Health Epistemology: Between Evidence, Power, and Artificial Intelligence

If ontology answers the question "what is health," epistemology answers the question "how do we know it." In the practice of health administration, this epistemological question has very concrete consequences: what kind of knowledge is considered legitimate in clinical decision-making and policy? Who is authorized to produce that knowledge? And how are different types of knowledge integrated in uncertain situations?

Macleod et al. (2020) argue that health professional education has so far dominated one epistemological paradigm of positivist empiricism, resulting in practitioners who are proficient in using evidence but are poorly trained to think epistemologically critically about the limits of the evidence itself. Epistemological pluralism, in their view, is not a philosophical luxury but an essential professional competence.

Raman and Sullivan (2024) show empirically how the integration between scientific evidence and clinicians' personal experiences in evidence-based practice mediated by health information technology faces complex challenges and opportunities. Good clinical decision-making does not occur when one chooses between evidence or experience, but rather when the two are reflexively integrated in a specific context. Pereira de Souza et al. (2020) reinforce these findings through a knowledge management model that integrates absorptive capacity, sense-making, and decision-making as a single set that supports each other in clinical staff management.

Yet the critical dimension of health epistemology that is most often overlooked is the power dimension. Pillay and Pillay (2023) document how institutional hierarchies, professional norms, and gender dynamics manifestly shape clinical reasoning processes often in ways that are unaware of their perpetrators. Clinical knowledge is not produced in a vacuum; it is born in the context of power relations that determine whose voices are heard and whose perspectives are ignored. Gabbay et al. (2020) show that even in evidence-based health policymaking at the local level in the UK, the process of transforming knowledge from research to policy passes through a complex path and is fraught with political and contextual considerations.

The most challenging epistemological dimension today comes from the integration of artificial intelligence in health decision-making. Khosravi et al. (2024) through thematic analysis from a comprehensive systematic review found that AI improves the quality and efficiency of decision-making, but at the same time presents an unresolved epistemological challenge: how to integrate the tacit knowledge of clinicians built up through years of experience with algorithmic recommendations resulting from statistical data patterns? Funer et al. (2024) add an ethical layer to this question: when an AI-based clinical decision support system provides recommendations, the distribution of moral responsibility between clinicians, institutions, and system developers becomes very philosophically unclear.

Maris et al. (2024) delved into patients' own perspectives on the use of AI in the prevention of sudden cardiac death and found that patients strongly emphasized the importance of the irreplaceable "human touch" a signal that an adequate health epistemology for the age of AI should be able to integrate the relational and emotional dimensions of medical knowledge, not just its computational dimensions. Liedtke and Langanke (2021) developed this argument further by establishing a specific responsibility ethics for the use of IT-based decision support systems in medical practice, arguing that traditional responsibility ethical frameworks are inadequate to deal with distributed agent structures in AI-based systems.

Ethics in Healthcare Management: Principles, Operationalization, and Contemporary Challenges

The four classical bioethical principles formulated by Beauchamp and Childress autonomy, beneficence, non-maleficence, and justice have been the normative foundations of health management for decades. Yet the

operationalization of these four principles in an increasingly complex, dispersed, and technology-based system raises questions that conventional bioethical frameworks cannot answer.

Tamășan Bakri (2016) emphasizes that ethics and social responsibility in the health system are not simply values declared in policy documents, but rather must be embedded in organizational structures and day-to-day management processes. This means that health ethics should be understood not as a supplement to an existing system, but rather as an architectural principle that determines how it is designed from the start. Pagani, García and Claudot (2022) through their systematic review confirm that ethical values and principles are indeed central to public health, but their implementation is highly variable and often inconsistent across contexts.

From the perspective of leadership ethics, Ho and Pinney (2016) argue that redefining ethical leadership in 21st-century health systems requires a shift from a leadership model that focuses on procedural compliance to one that develops the capacity for moral reflection at all levels of the organization. Petralia and Doldi (2024) reinforce this argument by showing that healthcare organizations that successfully integrate ethics into their institutional identities rather than just into their procedures show better performance in terms of public trust and accountability.

In a more specific domain, Saeidnia et al. (2024) document that AI interventions for mental health and well-being present multi-layered ethical challenges: the privacy of highly sensitive psychological data, the risk of algorithmic bias against marginalized groups, and the need for transparency in how systems work. Elendu et al. (2023) extend this mapping to the entire realm of AI and robotics in healthcare, concluding that existing ethical frameworks have not been designed to deal with the speed and scale of change brought about by these technologies.

The tension between ethics and governance is most evident in the case of global resource distribution. Peacocke et al. (2021) and Wouters et al. (2021) document in detail how the principle of equity in COVID-19 vaccine distribution comes directly to the realities of concentrated production capacity in several countries, weak global allocation mechanisms, and inequality of implementation power between high- and low-income countries. This is not a failure of ethics as a concept, but rather a failure to build governance mechanisms capable of translating ethical principles into operationally binding commitments.

In the context of health research, Pratt (2021) developed a "Research for Health Justice" framework that explicitly links research design to the global health justice agenda, while Kumar, Khosla and McCoy (2024) argue that the decolonization of global health research requires a fundamental shift in power in terms of who defines research questions, who controls methodologies, and how research results are distributed and used. Germani et al. (2024) add a new dimension by mapping ethical considerations in infodemic management a challenge that emerged sharply during the COVID-19 pandemic where the principles of transparency, inclusivity, and public trust have become critical variables in the effectiveness of public health responses.

Health System Governance: Digital Frameworks, Evaluations, and Challenges

Effective health governance requires more than just a clear bureaucratic structure. It requires a philosophical framework that determines what values are prioritized, to whom accountability is directed, and how tensions between various legitimate interests are managed transparently. Mohammadiha, Memarzadeh and Azimi (2021) through structural equation modeling identify key governance strategies that include strategic orientation, financial management, stakeholder partnerships, and ethical orientation as interrelated components in a comprehensive health system governance model.

Anwari et al. (2015) documented the implementation of people-centred approach to health system governance in Afghanistan that successfully improved the governance score and performance of health systems in fragile environments. This success is interesting precisely because it was achieved not through the application of a standard governance model, but through the adaptation of the principles of accountability, stakeholder engagement, and joint strategic direction into a very specific local context.

Khosravi, Mosadeghrad and Arab (2023) through their scoping review found that existing health system governance evaluation tools have serious limitations: most of them are unidimensional, developed in specific contexts that cannot be automatically generalized, and are not able to capture the complexity of governance in the actual health system. This is a methodological gap that also reflects a philosophical gap: if we do not have a clear conception of what good health governance normatively means, then the tools to measure it will always be inadequate.

The dimension of system resilience is one of the main focuses in post-pandemic governance. Saulnier et al. (2021) developed a health system resilience research agenda that emphasizes the need to move from conceptualization to concrete measurement and implementation. Sapkota et al. (2023) through a systematic review of the impact of decentralization on health systems found that the relationship between decentralization and system performance is highly context-dependent: decentralization can improve local responses and

community trust, but it can also weaken national standards and create inequalities between regions if not accompanied by strong coordination mechanisms.

In the domain of eHealth governance, Kierkegaard (2015) showed that governance structures chosen centralized, decentralized, or blended models have a direct impact on system interoperability, adoption by users, and stakeholder trust. Scheibner et al. (2021) through a scoping review of the implementation of national eHealth systems found that the success of implementation is largely determined by the alignment between technical design and contextual values embraced by the community, not solely by the sophistication of the technologies used.

Alhur, Caamaño-Alegre and Reyes-Santias (2024) developed a public value-based eHealth adoption model that explicitly integrates philosophical considerations of public value into the framework of technology acceptance, an approach that goes beyond conventional technology adoption models that focus solely on the perception of ease of use and usability. Arini et al. (2024) confirm the relevance of this approach through an empirical study in Indonesia that shows that trust influenced by system reliability and value perception is the main predictor of eHealth adoption in the Southeast Asian context.

The question of the privacy and security of health data is not just a technical or legal issue, but a philosophical issue that touches on the foundations of public trust in health systems. Sahi et al. (2017) document the conditions of privacy preservation in the eHealth environment and identify future research directions that show how far the gap between technical developments and the ethical framework needed to guide their use. Rinchen and Yoezer (2024) developed a recommended ethical path for the adoption of responsible health information systems, arguing that navigating this ethical terrain requires institutional commitment that goes beyond regulatory compliance.

Chukwu and Garg (2020) reviewed the potential of blockchain for healthcare systems and found that these technologies offer solutions to issues of trust, security, and privacy, but with significant trade-offs in terms of scalability and governance complexity. This illustrates a common pattern in healthcare technology innovation: each technical solution brings with it a new layer of philosophical questions about value, accountability, and power distribution that its designers did not necessarily anticipate.

Ellis et al. (2022) through a scoping empirical review of Learning Health Systems found quite surprising findings: although LHS is promoted as an ideal model of an adaptive and evidence-based health system, very few LHS studies integrate implementation science frameworks, and ethics and governance remain the least explored areas. Grob et al. (2022) reinforce this concern by pointing out that the role of patients in learning governance in LHS is highly variable and often unequal, even though patient engagement is one of the fundamental philosophical principles of the LHS approach itself.

Foundation	Dimensions	Key Questions	Key Concepts	Main References
Knowledge	Dimension 1 – Health Ontology (Pluralism)	What is health?	- Reductionist biomedical - Health as an adaptive process - Holistic/spiritual (e.g. Ayurveda)	Pârvan (2016); McLaren (2019); Menatti et al. (2022)
Knowledge	Dimension 2 – Epistemology (Inclusive)	How do we know?	- Empirical / Evidence-Based Medicine (EBM) - Experiential knowledge - Epistemic AI - Normative approach	Macleod et al. (2020); Raman & Sullivan (2024); Khosravi et al. (2024)
Normative	Dimension 3 – Ethics (Systemic)	What values are prioritized?	- Classical bioethics - Technology/AI ethics - Distributional justice	Tamășan Bakri (2016); Elendu et al. (2023); Peacocke et al. (2021)
Operational	Dimension 4 – Governance (Adaptive)	How is it operational?	- eHealth governance - Learning health systems - Decentralization & resilience - Coherent and equitable health policies	Khosravi et al. (2023); Ellis et al. (2022); Fullaondo et al. (2024)

Discussion and Policy Implications

Ontological Incongruity and Epistemological Crisis in Health Administration

One of the biggest paradoxes in modern health administration is that increasingly technically sophisticated systems are increasingly producing incoherent policies. Hospitals with cutting-edge digital infrastructure still suffer from fundamental coordination failures. National health programs with large budgets have failed to meaningfully change public health behavior. The response to pandemic crises in many countries shows systemic incompetence that cannot be explained solely by a lack of resources. The root of this paradox, as the literature of contemporary health philosophy shows, lies in the misalignment between the ontological foundations used to define health and the epistemological frameworks used to generate knowledge about it.

Ontological inconsistency occurs when a health system operates under assumptions about "what is health" that is never explicitly articulated, so that it is never tested, never criticized, and never adjusted when reality demands change. Lillrank (2015) captures this mechanism very precisely through the distinction between small quality and big quality. When a health system adopts small quality indicators that measure conformity to established procedural standards to evaluate services that actually require a big quality orientation centered on patient expectations and experiences, what happens is not just measurement inaccuracies. What happens is an ontological distortion in which the system unconsciously redefines what is considered "good health" according to what can be measured, rather than what is actually good health.

This kind of distortion has very concrete consequences. Pârvan (2016) shows that the Cartesian dualism underlying conventional biomedical models of the firm separation between the measured physical dimension and the personal dimension that is considered subjective results in clinical practice that systematically ignores the patient's life experience as valid data. A patient with chronic pain that cannot be biologically confirmed often experiences a health system that ontologically has no category for his or her condition. Not because the doctor doesn't care, but because the system that trains the doctor is built on an ontology that does not recognize that form of suffering as the object of legitimate medical intervention.

Furthermore, Bilbao (2023) argues that building a coherent philosophy of health requires serious conceptual work on its basic concepts, including the epistemological and axiological work that is often overlooked in health profession education. This means that the question of what is considered legitimate knowledge in health systems cannot be separated from the question of what values the system embraces. Macleod et al. (2020) confirm that the dominance of one epistemological paradigm in health profession education results in practitioners who are proficient in using evidence but are not trained to think critically about the limits of the evidence itself, including about the ontological assumptions underlying the production of such evidence.

This misalignment becomes even more serious when confronted with the reality that clinical decision-making and policy are never purely empirical. Raman and Sullivan (2024) show that the integration between scientific evidence and clinicians' personal experiences in evidence-based practice is a complex and non-linear process, heavily influenced by organizational context and relational dynamics. Pereira de Souza et al. (2020) reinforce these findings by identifying that effective knowledge management in healthcare requires a model that integrates absorptive capacity, sense-making, and decision-making as a single set that supports each other, rather than as a separate, independently managed process.

The dimension of power in the production of health knowledge is the least recognized but most consistent aspect influencing the quality of decision-making. Pillay and Pillay (2023) empirically document how institutional hierarchies and professional norms shape clinical reasoning processes in ways that practitioners are not always aware of. Clinical knowledge is not produced in a neutral space; it is born in the context of power relations that determine whose perspectives are considered valid and whose experiences are considered relevant. Gabbay et al. (2020) extend these findings to the policy level by showing that the transformation of knowledge from research to policy at the local level passes through a path fraught with political and contextual considerations, far from the oft-assumed linear "evidence to policy" model.

The most complex epistemological challenge today comes from the integration of artificial intelligence in health decision-making. Khosravi et al. (2024) found that while AI significantly improves quality and efficiency in a variety of clinical contexts, it simultaneously presents philosophically unresolved epistemological questions. Machine learning algorithms generate their recommendations based on statistical patterns from historical data. This means that the knowledge produced by AI is inherently retrospective and tied to the distribution of the data used to train it. As clinical conditions or population contexts change, AI's ability to generate valid knowledge becomes uncertain in ways that are often non-transparent to its users.

Funer et al. (2024) add a more fundamental layer: when an AI-based clinical decision support system provides recommendations, the structure of moral responsibility becomes distributed in a way that has no precedent in conventional medical ethics. The clinician who receives the AI's recommendations and the patients who receive the clinical decisions they influence are in an epistemological relationship that is fundamentally different from the traditional doctor-patient relationship. Liedtke and Langanke (2021) argue that confronting these situations

requires an ethics of responsibility that is explicitly designed for the context of a distributed agent, rather than simply applying individual ethics to collective situations.

Most critically, Maris et al. (2024) remind us that the patient himself as the primary subject of this entire health knowledge system consistently emphasizes the value of relational and emotional dimensions in medical decision-making that cannot be replicated by even the most sophisticated data-driven systems. This is not an anti-technological argument, but rather an epistemological argument: that the knowledge relevant to health decisions includes dimensions that in principle cannot be reduced to data patterns, and ignoring these dimensions is not just a technical flaw but a fundamental epistemological failure.

The overall picture that emerges from this analysis is that the crisis in contemporary health administration is not primarily a resource crisis or a managerial crisis, but a philosophical crisis. A system that lacks ontological clarity about what it aims to achieve will always produce misleading measures. A system that lacks adequate epistemological pluralism will always result in decisions that are too narrow. And a system that is incapable of integrating various forms of empirical, normative, experiential, relational relevant knowledge into its decision-making process will continue to produce policies that feel rational on paper but fail to touch the realities that patients and the communities they serve are actually facing.

The inadequacy of Classical Ethics and the Need for an Integrated Philosophical Framework in Contemporary Health Governance

The four principles of bioethics formulated by Beauchamp and Childress have been the normative backbone of health administration for more than four decades. Autonomy, beneficence, non-maleficence, and fairness are not just abstract principles, they have been transformed into operational language in hospital ethics committees, clinical research protocols, and national health policy guidelines in almost all parts of the world. But the question that increasingly emerges in contemporary literature is not about the philosophical validity of these principles, but about whether the ethical architecture built on them is still robust enough to sustain the complexity of the 21st-century health system.

Tamășan Bakri (2016) argues that ethics and social responsibility in the health system should be embedded in organizational structures and day-to-day management processes, rather than simply declared in policy documents. This argument actually touches on a much deeper issue than just implementation: it shows that classical ethical frameworks are largely designed to manage individual decisions in the doctor-patient relationship, rather than to guide systemic decisions in complex health organizations with long and multilayered chains of accountability. Health organization theory, particularly in the tradition developed by Donabedian through the structure-process-outcomes framework, has long implied that the quality of health care is a systemic property, not an individual property. However, the ethical framework used to guide such systems still rests largely on individual ethical models.

This gap between individual ethics and systemic ethics becomes most evident when dealing with the distribution of resources on a large scale. Peacocke et al. (2021) and Wouters et al. (2021) document how the principle of fairness in COVID-19 vaccine distribution comes directly to the realities of concentrated production capacity, weak global allocation mechanisms, and inequality of implementation power. What is interesting from a theoretical perspective is that this failure is not because the principle of fairness is not recognized that all actors in the global vaccine distribution system formally recognize the principle. The failure lies in the absence of a governance mechanism capable of translating such ethical commitments into binding operational obligations. This is an empirical confirmation of what in public health theory is known as the implementation gap: the distance between the norms that are embraced and the practices that are implemented, which in this case have very deep philosophical roots.

Health systems theory itself, in its development from a linear model to a model of complexity, has in fact long gone beyond the assumptions underlying classical ethics. The complex adaptive systems approach to understanding health organizations developed by Plsek and Greenhalgh recognizes that the behavior of systems cannot be predicted solely from the behavior of its components, that simple rules can produce very complex behaviors, and that the same interventions can produce very different outcomes in different contexts. Borghmans (2022) reinforces this framework by showing that a viable system must have a radical openness to the exchange of energy, information, and resources with its environment, a characteristic that directly challenges ethical models built on assumptions about clear boundaries between actors, responsibilities, and consequences.

In the context of AI and health technology, the inadequacy of classical ethics has become even more fundamental. Saeidnia et al. (2024) point out that AI interventions for mental health present ethical challenges that have no analogue in conventional bioethics: algorithms that are constantly learning from their interactions with users change their character over time in a way that is not always transparent, creating a situation in which

the principle of informed consent that is the main operationalization of the principle of autonomy becomes very difficult to fulfill substantively. How can one give truly informed consent to a system whose character will continue to change once consent is given? Elendu et al. (2023) map that the existing ethical framework has not been designed to deal with the speed and scale of change brought about by these technologies, indicating an urgent need for the development of a new ethical framework that is fundamentally different from the classical principled approach.

Similar tensions arise in the realm of health data management. Privacy theory in the bioethical tradition understands privacy as an individual right that must be protected from infringement by others. However, Sahi et al. (2017) and Rinchen and Yoezer (2024) show that in the eHealth environment, privacy operates in a fundamentally different logic: seemingly insensitive individual data can become highly sensitive when combined with other data through advanced analytics, and the social value of aggregating health data for the benefit of research and public policy creates tensions that cannot be resolved solely by individual rights frameworks. Wilton (2017) argues that ethical handling of data in health contexts requires a shift from legal compliance to the internalization of the values of justice, legitimacy, and trust, a shift that requires an ethical framework that is qualitatively different from existing principles-based approaches.

This is where health governance theory meets philosophy directly. Mohammadiha, Memarzadeh and Azimi (2021) identify ethical orientation as one of the central components in a comprehensive health system governance model, but in a framework that places ethics not as a set of principles applied from outside the system but rather as a value orientation embedded in the governance architecture itself. This is in line with what in public governance theory is known as value-based governance , an approach that views values not as external constraints for decision-making but as internal constituents of what is considered good decisions.

Anwari et al. (2015) provide empirical evidence that a people-centred governance approach that integrates accountability, stakeholder engagement, and joint strategic direction is able to improve the performance of health systems even under very limited conditions. What is philosophically interesting about these findings is that such success does not depend on the sophistication of the governance instruments used, but rather on the coherence between the values embraced and the mechanisms designed to operationalize them. This is an empirical confirmation of the philosophical argument that the internal coherence of a normative system determines its effectiveness more than its technical completeness.

Sapkota et al. (2023) show that decentralization in health governance has a highly context-dependent effect, a finding that philosophically confirms that no governance model is universally superior. However this is not an argument for governance relativism. It is an argument for what can be termed contextual universalism in health governance: that certain principles such as accountability, transparency, and stakeholder participation have universal validity, but that the way of operationalizing them must seriously consider the specific ontological and epistemological context in which the system operates.

Ellis et al. (2022) and Grob et al. (2022) together describe a paradox that is particularly instructive in the context of Learning Health Systems: systems that are philosophically built on a commitment to continuous learning, patient engagement, and evidence-based improvement find that in practice very rarely explicitly integrate ethical and governance frameworks. This paradox reflects what in organizational theory is known as espoused theory versus theory-in-use: the distance between declared values and the actual logic that drives organizational behavior. Overcoming this paradox requires more than simply adding an ethical component to the existing LHS design. It requires a philosophical reconstruction of the normative foundations of the LHS approach itself.

Departing from all of the above analysis, the unified philosophical framework required by contemporary health administration must meet at least four interrelated conditions. First, it must be ontological pluralist: recognizing that different health models have different contextual validities and that ontological choices always have policy implications that must be explicit. Second, it must be epistemologically inclusive: integrating empirical, normative, and experiential knowledge as complementary sources, not competing with them, including in the face of the challenges brought by AI as a new epistemic actor. Third, it must be systemic ethical: moving beyond individual ethics toward a framework capable of managing moral responsibility in a complex, distributed, and ever-changing system. Fourth, it must be adaptive governance: building mechanisms flexible enough to accommodate contextual pluralism without losing universal standards of accountability.

Saad and Prochaska (2020) provide a useful philosophical foothold for this kind of framework by placing health as a universal value within the framework of a broader philosophy of life. In this view, health administration is not just a matter of service management, but an expression of a society's collective commitment to the value of a meaningful life. Fullaondo et al. (2024) show that a clear philosophical orientation with integration, responsiveness, and digitalization as values embedded in the system architecture, not just a managerial instrument is what distinguishes a health system that is able to transform itself in the face of a crisis from one that is only able to react to it.

This proposed fraework is not a universal prescription that can be applied uniformly. It is a philosophical structure that provides room for contextual adaptation while maintaining the normative coherence necessary for the health system to be morally accountable to those it serves. In Indonesia and the broader Southeast Asian context, where health systems are facing epidemiological transitions, rapid digitalization, and complex decentralization pressures simultaneously, such a framework is not an academic luxury but rather an urgent practical necessity.

Conclusion and Future Research Directions

Contemporary health administration faces a crisis whose root is not in a lack of resources or managerial weakness, but rather in a philosophical inconsistency that has been rarely openly acknowledged. When the health system operates under ontological assumptions that have never been explicitly articulated, it unconsciously redefines what is considered good health according to what its instruments can measure, rather than what is genuinely valuable. This distortion is not an anomaly; it is a predictable consequence of the absence of ontological clarification in policy design and service systems.

Epistemological pluralism is not an intellectual choice but an operational imperative. Effective clinical and policy decision-making requires the reflective integration of empirical, normative, and experiential knowledge. The presence of artificial intelligence as a new epistemic actor does not simplify this challenge but rather deepens it, as the questions of what kind of knowledge is legitimate, who is responsible for the decisions made, and what dimensions of human experience that cannot be reduced to data patterns are becoming increasingly urgent to be answered philosophically.

Classical ethical principles remain valid as a normative foundation, but they are no longer adequate as a single operational framework in a complex, distributed, and technology-based health system. The failure of global vaccine distribution, paradoxes in Learning Health Systems, and the challenges of data privacy in eHealth all confirm that a systemic ethics capable of managing moral responsibility in a long and non-linear chain of accountability is needed as something that is fundamentally different from the individual ethics underlying conventional bioethics.

The integrated philosophical framework needed is one that is ontologically pluralist, epistemologically inclusive, systemic ethical, and adaptive governance at the same time. These four dimensions are not partially selectable components. A health system that has ontological clarity but lacks inclusive epistemology will still produce narrow decisions. A system that has strong ethics but non-adaptive governance will still fail to translate moral commitment into real change. Only when these four dimensions are connected in one coherent framework can health administration function not just as a service machine, but as an expression of a society's collective commitment to the value of a meaningful life.

Recommendation

First, ontological codification in health policy design. Every national or institutional health policy should include an explicit ontological statement: what definitions of health are used, what implications they have on policy priorities, and how those definitions will be re-evaluated periodically. In Indonesia, this can be operationalized through a health philosophy review mechanism that is integrated into the Ministry of Health's planning cycle, similar to the regulatory impact assessment that is prevalent in public policy.

Second, epistemological reform in health professional education. The education curriculum for doctors, nurses, and other health workers needs to explicitly include epistemological competencies, namely the ability to identify the types of knowledge that are being used in decision-making, recognize its limits, and integrate different sources of knowledge reflectively. This is not an addition to philosophy courses, but rather a pedagogical reorientation that makes epistemological reflection a component of any clinical learning process.

Third, the development of a second-generation ethical framework for health technologies. National and international bioethics institutions need to seriously develop ethical frameworks designed specifically for the context of AI and eHealth, rather than simply adapting classical principles. These frameworks should explicitly address the distribution of moral responsibility in algorithm-based systems, dynamic informed consent standards for systems that are constantly learning, and ongoing ethical audit mechanisms not just at the time of initial implementation.

Fourth, the development of adaptive governance infrastructure at the system level. Countries with transitioning health systems, including Indonesia, need governance mechanisms designed to adapt, not just to regulate. This means building capacity to conduct multidimensional governance evaluations on a regular basis, engaging patients and communities not only as objects of service but as actors in the systems learning process, and developing eHealth interoperability standards that take into account culturally contextual values of trust and privacy, rather than just technical standards adopted from different contexts.

Fifth, a structured cross-disciplinary research agenda. The research gaps identified in this article, namely the operationalization of ontological models in practical administration, the integration of ethics in Learning Health Systems, and culturally contextual eHealth governance, cannot be answered by a single discipline. Structured collaboration is needed between health philosophers, health system administrators, data scientists, and patient communities in a shared research agenda that explicitly aims to bridge philosophical theories and administrative practices. In Indonesia, such a platform can be developed through a consortium between public health faculties, philosophy faculties, and health policy institutions that have never seriously worked within this kind of collaborative framework.

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