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The Socio-Health Implications of Digital Health Misinformation Targeting Child Development in Indonesia: A Critical and Legal Analysis

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Abstract

The proliferation of health misinformation, particularly concerning child health and development, in the digital age poses a significant threat to public well-being in Indonesia. This paper examines the multifaceted legal consequences arising from such misinformation, especially when disseminated by sources perceived as authoritative, including public officials. It analyzes the direct health impacts on children, such as malnutrition and the resurgence of vaccine-preventable diseases, alongside the broader socio-economic burdens, including increased healthcare expenditure and the erosion of public trust in health institutions. Through a case study approach focused on Indonesia, this paper critically evaluates the adequacy of the current legal and ethical frameworks—including the Electronic Information and Transactions (ITE) Law, Child Protection Law, Consumer Protection Law, Health Law, Ministry of Health regulations, and the Indonesian Medical Code of Ethics (KODEKI)—in addressing this challenge. Drawing on comparative analysis of regulatory strategies in countries like the United Kingdom, the European Union, Singapore, and Malaysia, the paper identifies key deficiencies in Indonesia's current approach. It argues for the urgent development and implementation of a comprehensive, multi-tiered regulatory framework. This framework should prioritize the protection of children and parents, enhance platform and professional accountability, promote digital and health literacy, and ensure robust enforcement mechanisms. The paper concludes with recommendations for reforms and collaborative actions among stakeholders to safeguard children's right to health and access to accurate information in an increasingly complex digital environment.

Keywords: Health misinformation, child protection, legal framework, digital literacy, Indonesia

1. INTRODUCTION

The digital era, characterized by unprecedented connectivity and information accessibility, has paradoxically become a fertile ground for the proliferation of misinformation, particularly concerning health (Anjela, et. al., 2024). Social media platforms, while offering avenues for knowledge sharing, have also emerged as significant conduits for the rapid and widespread dissemination of unverified and often harmful health claims. In Indonesia, the scale of this issue is particularly alarming, with health-related hoaxes identified as the most prevalent category of false information, with 2,256 reported cases between 2018 and 2023 (Anjela, et. al., 2024). This digital "infodemic" poses a substantial threat, especially to vulnerable populations such as children, whose health and developmental trajectories can be severely impacted by misleading narratives. The high internet penetration in Indonesia, with 139 million users as of January 2024 (Anjela, et. al., 2024), combined with a societal tendency to seek and share health information online, creates a uniquely challenging environment where the risk to children is significantly amplified.

Children are a vulnerable demographic, reliant on adults for their health decisions. Parents and caregivers, driven by

concern for their children's health, often turn to online sources for guidance. Studies indicate that a vast majority of parents, approximately 89%, seek online health information when their children are unwell (Anjela, et. al., 2024). This reliance, however, makes them susceptible to misleading health narratives. Children themselves are also increasingly exposed to online content, yet their capacity to critically evaluate information is limited, compounding their vulnerability (Aryono and Prastyanti, 2020).

The detrimental impact of health misinformation is significantly exacerbated when it originates from or is endorsed by public officials. Such endorsements lend an unwarranted veneer of credibility to false claims and can erode public trust in legitimate health authorities (APJI, 2024). A recent illustration in Indonesia is the claim, reportedly made by a public official, that children should consume two liters of milk per day to achieve greater height. This assertion directly contradicts the recommendations of pediatric and nutritional experts, including the Indonesian Pediatric Society (IPS-IDAI). Experts from IDAI have stated that consuming two liters of milk daily is unrealistic for children and carries health risks, such as constipation, obesity, and nutrient deficiencies (Agustin, 2025). IDAI's recommended daily milk intake for children aged 2-5 years is approximately 500-700 ml. This divergence between official pronouncements and expert medical advice highlights a critical credibility crisis, fostering public skepticism towards official health advice.

The pervasive nature of child health misinformation in Indonesia, amplified by digital platforms, necessitates an urgent and comprehensive response. This paper argues for the development of a robust legal and regulatory framework to counter the spread of such misinformation, protect children's rights to health and accurate information, and hold accountable those who disseminate harmful falsehoods.

2. METHODOLOGY

This research employs a qualitative approach with a case study method focused on Indonesia. The analysis is conducted on various secondary data sources, including relevant laws and regulations such as the Electronic Information and Transactions (ITE) Law, the Child Protection Law, the Consumer Protection Law, the Health Law, and derivative regulations from the Ministry of Health. The ethical frameworks analyzed include the Indonesian Medical Code of Ethics (KODEKI) and the code of ethics for Civil State Apparatus (ASN). To understand the misinformation landscape, this study examines reports and scientific articles on common child health misinformation themes (nutrition, vaccination, development), their sources (including social media and public official statements), and scientific rebuttals from authoritative bodies like the Indonesian Pediatric Society (IDAI) and the Ministry of Health.

Furthermore, this research conducts a comparative analysis of regulatory strategies in other countries such as the United Kingdom (Online Safety Act 2023), the European Union (Digital Services Act), Singapore (POFMA), and Malaysia (Communications and Multimedia Act). This comparison aims to identify best practices and models that can be adapted for Indonesia in formulating a comprehensive regulatory framework that protects the interests of children and parents from the negative impacts of health misinformation.

3. LITERATURE REVIEW

3.1. The Landscape of Child Health Misinformation in Indonesia

Misinformation concerning child health in Indonesia is multifaceted, covering themes from

nutrition and vaccination to growth and development. These hoaxes often spread through accessible digital channels and gain traction even when they directly contradict scientific evidence (Anjela, et. al., 2024).

3.1.1. Common Misinformation Themes:

- **Nutrition:** Prominent claim that consuming large quantities of milk, will make children taller. This myth contradicts expert advice from IDAI, which recommends 500-700 ml for children aged 2-5. Scientific evidence indicates that while milk provides essential nutrients, excessive intake does not guarantee increased height, which is largely determined by genetics (Wiley, 2005).
- **Vaccination:** This is a major area for health misinformation. Widespread hoaxes allege that vaccines contain harmful substances, cause severe adverse events, or are ineffective (Anjela, et. al., 2024). Unfounded claims linking the MMR vaccine to autism persist despite being widely debunked by extensive scientific research (Lehigh Valley Health Network, 2025).
- **Growth and Development Myths:** A common misconception is that teething causes high fevers in infants (Pediatric Associates of Savannah, 2025). Unscientific beliefs about accelerating developmental milestones can also lead to harmful practices.

3.1.2. Sources and Channels of Misinformation:

The spread of child health misinformation occurs through various channels, often amplified by the digital ecosystem. Social media platforms like Facebook, WhatsApp, and TikTok are primary vectors for the rapid dissemination of health hoaxes (Anjela, et. al., 2024). Statements from influential figures and public officials can lend undue credibility to misinformation.

3.1.3. Scientific Rebuttals:

Credible health organizations consistently refute common child health hoaxes. IDAI experts have debunked the "2L milk per day for height" myth, emphasizing age-appropriate intake and highlighting the risks of overconsumption (Agustin, 2025). International bodies like WHO and UNICEF, along with national authorities, consistently affirm the safety and efficacy of vaccines (World Health Organization, 2025).

3.2. Tangible Impacts: Health and Socio-Economic Consequences

The spread of health misinformation targeting children causes tangible harm, manifesting in direct health impacts, significant economic burdens, and the erosion of public trust.

3.2.1. Direct Health Impacts:

- **Malnutrition and Stunting:** Misinformation about appropriate infant and young child feeding practices can lead to adverse nutritional outcomes. This can contribute to malnutrition, including stunting, which has long-term consequences, impairing cognitive development and increasing vulnerability to chronic diseases (TNP2K, 2018).
- **Vaccine-Preventable Diseases (VPDs):** Vaccine hesitancy, fueled by false claims, leads to suboptimal immunization coverage. Consequently, Indonesia has witnessed the resurgence of VPDs like measles, diphtheria, and polio (Sinuraya, et. al., 2024).

- **Delayed or Inappropriate Treatment Seeking:** Misinformation promoting unproven "cures" can lead parents to delay or forgo evidence-based medical care for serious childhood illnesses (Anjela, et. al., 2024).

3.2.2. Economic Burdens:

The economic impact is substantial. Families incur direct treatment costs for preventable illnesses. Money spent on ineffective "remedies" promoted through misleading claims is a waste of household resources. At the national level, outbreaks of VPDs require costly public health responses. The long-term impact of stunting, such as reduced cognitive ability and adult earning potential, also imposes a significant economic burden on the nation (Suryana, et. al., 2023).

3.2.3. Social Impact: Erosion of Public Trust:

One of the most damaging consequences is the erosion of public trust in health professionals, scientific evidence, and health institutions. When misinformation, especially from public officials, becomes widespread, it creates confusion, fear, and skepticism among the public (Anjela, et. al., 2024).

3.3. Analysis of Existing Legislation in Indonesia

Indonesia has various legal and ethical instruments that could, in principle, address child health misinformation. However, their application reveals significant gaps.

- **Law No. 1/2024 (ITE Law):** This law contains general provisions against the spread of false news. However, its application is often limited by the high threshold of "causing public unrest" and has been criticized for vague "catch-all articles" that can be misused .
- **Law No. 35/2014 on Child Protection:** This law establishes a general obligation to protect children, including from information that could harm their development.
- **Law No. 8/1999 on Consumer Protection:** This legislation prohibits misleading advertising and false claims about products, which is relevant for commercially marketed health products.
- **Law No. 17/2023 on Health & Ministry of Health (Kemenkes) Regulations:** These regulations govern the dissemination of health information and set standards for health advertising, requiring it to be objective and evidence-based.
- **Government Regulation No. 17 of 2025 (PP 17/2025):** Effective March 2025, this regulation requires Electronic System Providers (PSEs) to implement age verification, conduct risk assessments for harmful content, and provide accurate information, marking a significant step in online child protection.
- **Indonesian Medical Code of Ethics (KODEKI):** KODEKI provides ethical guidance for doctors, stipulating that they must be cautious in announcing new treatments and should only issue statements they have personally verified (Indonesian Medical Association, 2012).

3.4. Lessons from Abroad: Comparative Regulatory Strategies

- **United Kingdom:** The Online Safety Act 2023 imposes a duty of care on online platforms to protect users, with strong provisions for children, including preventing access to

harmful content (e.g., related to self-harm, eating disorders) (HM Government, 2025).

- **European Union:** The Digital Services Act (DSA) mandates that very large online platforms assess and mitigate systemic risks, including the spread of disinformation and threats to the well-being of minors (European Commission, n.d.).
- **Singapore:** The Protection from Online Falsehoods and Manipulation Act (POFMA) empowers government ministers to issue correction directives or takedown orders against false statements of fact deemed harmful to the public interest (Government of Singapore, 2024).
- **Australia:** The Therapeutic Goods Administration (TGA) regulates the advertising of therapeutic goods, ensuring claims are not misleading and are supported by evidence (Australian Government Department of Health and Aged Care, n.d.).

4. DISCUSSION

4.1. The Health and Socio-Economic Impacts of Child Health Misinformation in Indonesia

The dissemination of health misinformation targeting children in Indonesia creates a cascade of severe, interconnected consequences that undermine both individual and public health, while imposing substantial socio-economic costs. These impacts are significantly amplified when the misinformation is legitimized by sources the public perceives as authoritative, such as government officials.

4.1.1. Direct Health Consequences:

The most immediate and alarming impact is on the physical well-being of children. Misleading nutritional advice, such as the baseless claim that consuming overly large portion of milk daily promotes height, can directly lead to harmful practices. Parents, trusting the source, may adopt feeding patterns that result in unbalanced diets, contributing to malnutrition, obesity, or stunting.

Stunting, in particular, carries lifelong consequences, impairing cognitive development and future productivity (TNP2K, 2018). Similarly, the persistent circulation of anti-vaccine hoaxes—alleging that vaccines are unsafe or cause conditions like autism—directly fuels vaccine hesitancy. This has led to a measurable decline in immunization coverage and the tragic resurgence of vaccine-preventable diseases (VPDs) like measles and diphtheria, posing a direct threat to child mortality and morbidity (Sinuraya, et. al., 2024).

Furthermore, reliance on unproven "cures" promoted online can cause parents to delay seeking essential, evidence-based medical care, allowing treatable conditions to become severe or life-threatening (Anjela, et. al., 2024).

4.1.2. Socio-Economic Burdens:

The economic fallout from health misinformation is borne by families and the state. At the household level, families face increased out-of-pocket expenditures to treat preventable illnesses that arise from vaccine refusal or improper care. They may also waste limited financial resources on ineffective alternative products and therapies.

At the national level, the re-emergence of VPDs necessitates costly public health interventions, including outbreak containment,

surveillance, and emergency vaccination campaigns. The long-term economic drag caused by a generation affected by stunting is even more profound, manifesting as reduced human capital and lower national productivity, creating a vicious cycle of poverty and poor health (Suryana, et. al., 2023).

4.1.3. Erosion of Public Trust:

Perhaps the most insidious long-term consequence is the corrosion of public trust. When authoritative figures disseminate information that contradicts the consensus of the medical and scientific community (e.g., IDAI, WHO), it creates a "credibility crisis." The public is left confused, unable to distinguish between fact and fiction.

This skepticism does not remain confined to a single issue; it metastasizes into a general distrust of health professionals, scientific evidence, and government health institutions like the Ministry of Health (Anjela, et. al., 2024). This erosion of trust cripples the effectiveness of all public health campaigns, making the population less receptive to vital health messages during future crises and undermining the very foundation of the public health system.

4.2. Adequacy of the Current Legal Framework and Recommended Reforms

Indonesia's existing legal and ethical framework, while containing relevant provisions, is largely inadequate for comprehensively and proactively tackling the nuanced threat of digital child health misinformation. The current approach is fragmented, reactive, and ill-equipped for the speed and scale of online falsehoods, revealing critical gaps in specificity, enforcement, and accountability.

4.2.1. Inadequacy of Current Frameworks:

- **Lack of Specificity and "Catch-All" Provisions:** Laws such as the ITE Law are not tailored to the specific harms of health misinformation. The high threshold of proving that a falsehood "causes public unrest"—often interpreted as physical disorder—makes it difficult to prosecute cases where the harm is clinical (e.g., a child not being vaccinated) rather than civic (Aryono and Prastyanti, 2020). This, coupled with the law's reputation for vague "catch-all articles," chills legitimate health discourse while failing to target harmful content effectively.
- **Enforcement Challenges:** Proving direct causation between a piece of misinformation and a specific negative health outcome is legally complex. Furthermore, the anonymity and cross-jurisdictional nature of the internet present significant enforcement hurdles for national agencies.
- **Accountability Gaps:** There is a significant accountability vacuum, particularly concerning public officials. While general codes of conduct for civil servants (ASN) exist, they lack specific, enforceable sanctions for disseminating health misinformation. This allows influential figures to lend credibility to falsehoods with minimal fear of professional or legal repercussions, a critical failure when their statements carry immense weight with the public.
- **Reactive vs. Proactive Stance:** The current system is overwhelmingly

reactive. Action, if any, is typically taken after harm has already occurred. There is a lack of proactive mechanisms to prevent the amplification of harmful content before it reaches a critical mass. While the forthcoming Government Regulation No. 17 of 2025 (PP 17/2025) is a positive step toward placing more responsibility on digital platforms, its effectiveness will hinge entirely on rigorous implementation and oversight.

4.2.2. Regulatory Improvements Informed by International Comparisons:

To effectively protect children's rights, Indonesia must adopt a more robust, multi-layered regulatory strategy, drawing lessons from global best practices:

- **Adopt a "Duty of Care" Model:** Following the lead of the UK's Online Safety Act and the EU's Digital Services Act, Indonesia should legally mandate that online platforms have a "duty of care" to their users, especially children. This would shift the burden from reactive takedowns to a proactive requirement for platforms to assess, mitigate, and report on the risks of harmful content, including health misinformation, being amplified on their services (HM Government, 2025; European Commission, n.d.).
- **Establish a Rapid Correction Mechanism:** Inspired by Singapore's POFMA, Indonesia could develop a system that allows a designated, credible health authority (e.g., a joint task force of Kemenkes and IDAI) to issue legally binding correction or warning labels on verifiably false and harmful health claims online. This focuses on correcting the public record rather than solely on punishment, but must be designed with strong safeguards to prevent misuse and protect freedom of expression (Government of Singapore, 2024).
- **Empower a Specialized Regulatory Body:** Similar to Australia's Therapeutic Goods Administration (TGA), which regulates health product advertising, a specific division within Kemenkes or BPOM could be empowered with a clear mandate to monitor the digital landscape for health misinformation, issue authoritative rebuttals, and coordinate with platforms and law enforcement.
- **Strengthen Professional and Official Accountability:** The ethical codes for medical professionals (KODEKI) and civil servants (ASN) must be updated to include explicit clauses against the public dissemination of health information that contradicts established scientific evidence. These clauses must be tied to clear, transparent, and consistently enforced sanctions.

By integrating these proactive, multi-stakeholder approaches, Indonesia can move from a fragmented and reactive posture to a comprehensive framework that prioritizes the health and safety of its children in the digital age.

5. CONCLUSION

Child health misinformation in Indonesia is a pervasive and damaging phenomenon with severe, multifaceted consequences. It directly harms children's health, imposes significant economic burdens, and critically, erodes public trust in science and health institutions.

The existing legal and ethical mechanisms in Indonesia are fragmented and insufficient to adequately protect children from this pervasive online threat. A more targeted, proactive, and comprehensive regulatory framework is essential to uphold children's fundamental rights to health and accurate information.

Addressing this challenge requires a sustained, adaptive, and multi-stakeholder commitment. This paper calls for collaborative action among key actors:

- **Government of Indonesia:** Develop and implement coherent policies, strengthen enforcement capacity, and champion public education initiatives.
- **Professional and Regulatory Bodies:** IDAI, KKI, and BPOM must enhance their roles in setting and enforcing ethical and advertising standards.
- **Electronic System Providers (Platforms):** Proactively implement and enforce regulations like PP 17/2025, invest in technology to detect and remove harmful misinformation, and collaborate with health authorities.
- **Healthcare Professionals and Educators:** Provide direct counseling to parents and children, debunk myths, and promote health and digital literacy.
- **Civil Society and Media:** Play a critical role in advocacy, public education, fact-checking, and holding information sources accountable.
- **Parents and Caregivers:** Must be empowered with the skills to critically evaluate online health information.

Protecting children from the threat of health misinformation is not merely a legal or technical challenge; it is a societal imperative. It requires a paradigm shift toward fostering a culture of critical thinking, promoting trust in evidence-based health information, and ensuring that the digital environment serves as a source of empowerment, not harm, for Indonesia's future generations.

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