

A Conjoint Analysis of Gen Z Preferences for HIV Prevention Campaigns in Davao City

Chrisna L. Balbuena^{1*}, Abby Gayle Y. Cua², Leonardo Alfonso L. Ganade³, Ma. Althea M. Salva⁴, Kate Andrea Y. Sy⁵, and Emmanuel Joseph B. Sumatra⁶
Ateneo de Davao University

Corresponding Author: Chrisna L. Balbuena ejsumatra@gmail.com

ARTICLE INFO

Keywords: Conjoint Analysis, Generation Z, HIV Campaign, PAPRIKA Method, Treatment Hub

Received : 09, June

Revised : 12, July

Accepted: 30, August

©2026 Balbuena, Cua, Ganade, Salva, Sy, Sumatra : This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

The Philippines has the fastest-growing HIV epidemic in the Asia-Pacific, with Gen Z heavily affected. Grounded in Lasswell's Model and Rhetorical Triangle Theory, this study utilizes PAPRIKA conjoint analysis via 1000minds software to determine Gen Z Davaoños' preferences for HIV prevention campaigns. Using field data from June to September 2025, 383 valid respondents aged 18–28 near four treatment hubs evaluated four key attributes: speaker, channel, content, and tone. Results show speaker was most important (40.70%), followed by channel (26.60%), content (20.40%), and tone (12.40%). The highest simulated market share profile features a healthcare professional delivering a story-driven message with an empowering tone via social media. These insights offer public health organizations an empirical blueprint to maximize digital engagement.

INTRODUCTION

The human immunodeficiency virus (HIV) remains one of the most enduring challenges to global public health, affecting approximately 40.8 million people worldwide, with 1.3 million new infections recorded annually (UNAIDS, 2025). While the global community strives toward the UNAIDS 95-95-95 targets to end HIV as a public health threat by 2030 (International AIDS Society, 2023), the epidemiological landscape remains highly varied across regions. Contemporary international prevention strategies emphasize evidence-informed, community-owned combination approaches integrating biomedical, behavioral, and structural interventions, with a growing reliance on digital platforms to reach younger demographics (Noar et al., 2021; WHO, 2023).

The Asia-Pacific region houses the second-largest HIV epidemic globally, with young people aged 15 to 24 accounting for 26% of all new cases despite constituting only 15% of the total population (UNAIDS Asia Pacific, 2023; UNAIDS, 2024). Within this region, the Philippines stands out as a critical area of concern; although historically a low-prevalence country, it now exhibits the fastest-growing HIV/AIDS epidemic in the Asia-Pacific landscape (Cordero, 2025; World Health Organization, 2025b). Projections indicate that the country could record up to 500,000 people living with HIV (PLHIV) by 2030 if current trends persist (Patinio, 2024). Curiously, this surge occurs alongside a sharp decline in comprehensive health literacy; contemporary data reveals that only 15.3% of Filipino youth possess correct, comprehensive knowledge regarding HIV/AIDS transmission and prevention (University of the Philippines Population Institute, 2021).

Regionally, the Davao Region exhibits the fourth-highest number of reported HIV cases in the Philippines, with Davao City serving as the primary urban center driving these figures (Francisquete, 2025; Philippine News Agency, 2024). To counter this crisis, the local government unit has established free preventive services, including pre-exposure prophylaxis (PrEP) and voluntary clinical testing across adolescent-friendly health facilities and dedicated treatment hubs (CIO Davao City, 2025; Patumbon, 2025). Despite free availability, actual utilization remains extremely low due to pervasive cultural stigma and institutional resistance surrounding sexual health topics in the Philippines (Bujph, 2024; Mendoza, 2024; Patumbon, 2025).

This persistent gap highlights a clear phenomenological reasoning: current health communication frameworks fail to align with the communication nuances of Generation Z (born 1997–2012), who are digital natives with distinct preferences regarding content delivery, visual engagement, and message authenticity (Bell, 2024; Fromm & Read, 2018; McKinsey, 2025). While existing literature addresses general clinical willingness or broad media consumption habits (Gabucan, 2024; Srivastava et al., 2021; Sun et al., 2022), there is a distinct knowledge gap regarding how this specific cohort evaluates structural campaign design elements when exposed to sensitive public health interventions.

This study directly addresses this gap by establishing a clear explanation of our paper's contribution to knowledge enrichment through a specialized methodology. Utilizing Conjoint Analysis, this paper explores the complex

preference structures of Gen Z Davaoeños by measuring how they evaluate multi-attribute trade-offs in health communications, moving beyond conventional descriptive research to provide empirical, data-driven parameters for optimal campaign construction. The primary objective of this investigation is to determine the most and least preferred campaign attributes—specifically analyzing the intersections of speaker credibility, media channels, core content styles, and messaging tones—thereby offering a practical framework for health organizations to lower infection rates and eliminate social barriers.

THEORETICAL REVIEW

This study evaluates multi-attribute preferences through an integrated theoretical framework that bridges mathematical decision theory, classical rhetoric, and structural communication models.

Multi-Attribute Utility Theory (MAUT)

Developed by Peter Fishburn in 1965 and advanced by Keeney and Raiffa in 1969, Multi-Attribute Utility Theory (MAUT) evaluates complex alternatives by breaking them down into multiple independent criteria or attributes (Jansen, 2011). MAUT posits that an individual's total utility or satisfaction toward a compound alternative is a function of the part-worth utilities derived from its individual components and their relative weights. Conjoint analysis operationalizes MAUT within marketing and public health contexts by presenting realistic trade-off scenarios, enabling researchers to quantify how changes in a single attribute alter an individual's overall choice configuration (Al-Omari et al., 2022; Sumatra, 2025).

Lasswell's Communication Model (1948)

Lasswell's linear framework breaks down the communication process into five core structural elements: Who (Communicator), Says What (Message Content), In Which Channel (Medium), To Whom (Receiver), and With What Effect (Outcome) (Mulder, 2025). This investigation aligns its main attributes with Lasswell's model to capture the entire health communication process. The attributes are operationalized as follows: Who refers to the Speaker; Says What describes the Message Content; In Which Channel signifies the media Channel; To Whom isolates the target demographic of Gen Z Davaoeños; and With What Effect represents the desired outcome of maximized behavioral engagement and HIV prevention. This model allows researchers to dissect communication into measurable parameters to map specific population responses (Rahman & Munadi, 2019).

Aristotle's Rhetorical Triangle Theory

Dating back to the fourth century B.C., Aristotle's classical theory argues that effective persuasion relies on three foundational artistic proofs: **Ethos** (ethical credibility and authority), **Pathos** (emotional resonance and connection), and **Logos** (logical clarity, data, and sound reasoning) (Cruthers, 2020; Varpio, 2019). Within public health contexts, age significantly influences an individual's responsiveness to these persuasive appeals (Talaue, 2020, 2022). In this study, the

Rhetorical Triangle clarifies the underlying reasoning for Gen Z's preference structures:

1. **Ethos** is examined through the perceived authority and trust placed in specific campaign spokespersons, such as certified healthcare professionals, academic educators, peers, or individuals with lived experiences (Grover et al., 2023; Hunt et al., 2022).
2. **Pathos** is evaluated through message framing, exploring how motivational, direct, or narrative elements trigger the emotional states necessary to overcome social stigma and inspire behavioral changes (Bansah, 2020; Jiao, 2023).
3. **Logos** is evaluated through the clarity and structural presentation of factual data, testing whether the logical framing of health interventions effectively guides the target audience to undergo clinical screening or utilize preventive measures (Panovski, 2023; Sebastian et al., 2023).

To illustrate how these distinct variables interact methodologically to define the overall structure of youth-targeted health communications, the structural relationships and sequential operational layout of these elements are organized and visually presented in Figure 1, Conceptual Framework of the Study.

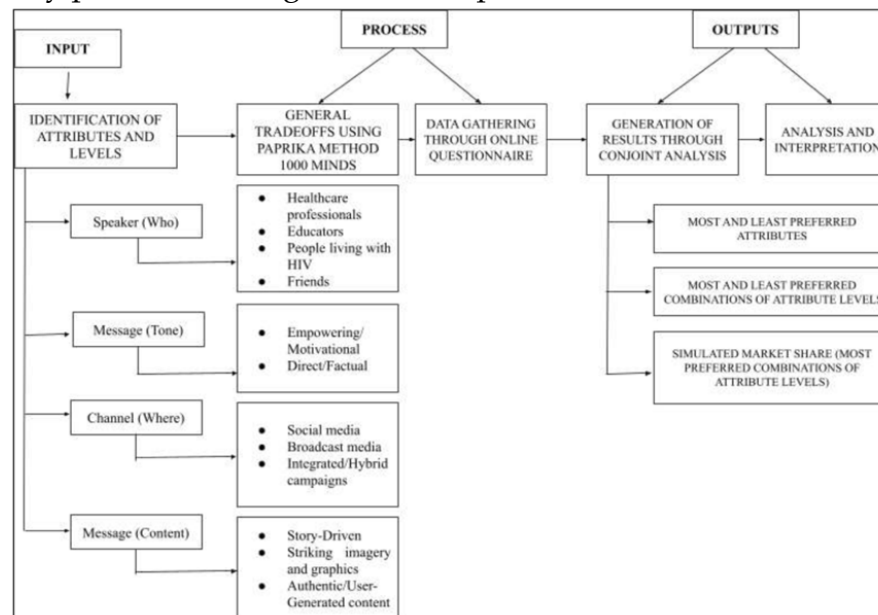


Figure 1. Conceptual Framework

METHODOLOGY

This study utilized a descriptive-quantitative research design to examine the preference structures and trade-off behaviors of Gen Z Davaoeños regarding HIV prevention campaigns without manipulating variables in the environment (Creswell & Creswell, 2018). Conjoint analysis was selected as the core quantitative method due to its unique ability to simulate real-world decision-making processes by requiring respondents to evaluate fractional-factorial profile comparisons (Orme, 2020; Resonio, 2024). Preference metrics were computed via the 1000minds online platform using the PAPRIKA method (Potentially All Pairwise Rankings of All Possible Alternatives), a recognized multi-criteria decision support technique that applies mathematical algorithms

to derive part-worth utility scores from sequential pairwise trade-offs (Berhane, 2018; Ombler, 2020).

This study utilized a descriptive-quantitative research design to examine the preference structures and trade-off behaviors of Gen Z Davaoños regarding HIV prevention campaigns without manipulating variables in the environment (Creswell & Creswell, 2018). Conjoint analysis was selected as the core quantitative method due to its unique ability to simulate real-world decision-making processes by requiring respondents to evaluate fractional-factorial profile comparisons (Orme, 2020; Resonio, 2024). Preference metrics were computed via the 1000minds online platform using the PAPRIKA method (Potentially All Pairwise Rankings of All Possible Alternatives), a recognized multi-criteria decision support technique that applies mathematical algorithms to derive part-worth utility scores from sequential pairwise trade-offs (Berhane, 2018; Ombler, 2020).

The research instrument was developed through a two-phase sequential exploratory procedure. An initial qualitative phase involving 20 structured interviews and 5 institutional in-depth interviews with clinic directors isolated the highest-performing attributes for evaluation (Anderson et al., 2023; Jaramillo et al., 2024). To eliminate cognitive burden and respondent fatigue, iterative pre-testing (n=40) and post-testing (n=32) were executed, leading to the removal of zero-utility levels and reducing potential trade-off tasks from 162 down to 57 tasks, which brought the median completion time to a highly efficient 2 minutes and 50 seconds.

Data collection occurred over a four-week period, using digital interface links verified by 1000minds automated consistency trackers. Statistical treatments utilized descriptive frequency distributions for psychographic profiling, mean utility scores for attribute ranking, Kendall's coefficient of concordance (K) to assess consensus validity, and Spearman's rank correlation (R_s) to determine preference consistency (Moslem et al., 2019). Full institutional clearance was maintained via strict compliance with Republic Act No. 10173 (Data Privacy Act of 2012) and Republic Act No. 11166 (Philippine HIV and AIDS Policy Act of 2018), ensuring complete data anonymity and voluntary participant withdrawal options at all stages of fieldwork.

RESULTS

Demographic and Psychographic Profiling

Out of 434 field responses, 383 passed the data cleaning filters, while 51 profiles were excluded due to task execution speeds under one second or systemic pattern-clicking. Demographically, the sample concentrated within the 18–24 late-adolescent bracket (67.89%), with the 25–28 young adult segment accounting for 32.11%. The gender distribution was balanced: female (51.70%), male (47.50%), and intersex (0.80%). Academically, 61.90% were college undergraduates, and 27.40% were college graduates. Spatial distribution across the 400-meter hubs was nearly uniform: Davao Doctors Hospital (26.40%), RHWC (25.80%), Jeffery By Love Yourself (25.80%), and SPMC (21.90%).

Psychographic media audits revealed an structural shift away from legacy platforms: 31.60% consumed less than an hour of television/radio daily, and

11.50% reported completely zero usage. Conversely, 50.10% reported spending more than 7 hours daily on social media platforms, and an additional 32.90% logged 4 to 6 hours daily. While baseline awareness was widespread – 39.40% understood basic HIV concepts and 36.30% felt highly knowledgeable – only 21.10% maintained active familiarity with local municipal campaign systems.

Attribute Importance and Part-Worth Utilities

The PAPRIKA algorithm calculated that the Speaker was the most critically important design attribute for Gen Z Davaoños, capturing 40.70% of the relative importance weight. The remaining attributes were ranked as follows: Channel (26.60%), Message Content (20.40%), and Message Tone (12.40%). Individual level breakdowns, measured through normalized part-worth utility values, indicate the specific directional preferences within each category as shown in Table 1.

Table 1. Attribute Weights and Part-Worth Utility Breakdown

Attributes	Relative Weight	Level Alternatives	Level Score	Normalized Utility
Speaker	40.70%	Healthcare Professionals	100.0	40.70%
		Educators	59.2	24.10%
		People Living with HIV (PLHIV)	31.6	12.80%
		Friends	0.0	0.00%
Channel	26.60%	Social Media	100.0	26.60%
		Broadcast Media	29.9	8.00%
		Integrated/Hybrid Campaign	0.0	0.00%
Message Content	20.40%	Story-Driven	100.0	20.40%
		Striking Imagery and Graphics	52.5	10.70%
		Authentic/User-Generated Content	0.0	0.00%
Message Tone	12.40%	Empowering/Motivational	100.0	12.40%
		Direct/Factual	0.0	0.00%

Combinations and Simulated Market Share

Aggregating the utilities established a perfect consensus for the absolute most preferred combination, yielding a cumulative utility of 100.00%: Healthcare Professional + Social Media + Story-Driven Content + Empowering/Motivational Tone. Conversely, the absolute least preferred combination, registering a baseline utility of 0.00%, was configured as: Friends +

Integrated/Hybrid Campaign + Authentic/User-Generated Content + Direct/Factual Tone.

To assess the variance in candidate configurations, a market share simulation was executed across the top tier permutations as shown in Table 2.

Table 2. Simulated Preference Market Share Across Alternative Configurations

Profile	Speaker Level	Channel Level	Content Level	Tone Level	Total Utility	1st Choice Share
Campaign 1	Healthcare Prof.	Social Media	Story-Driven	Empowering	100.00%	100.00%
Campaign 3	Healthcare Prof.	Social Media	Striking Imagery	Empowering	90.30%	0.00%
Campaign 5	Healthcare Prof.	Social Media	Story-Driven	Direct/Factual	87.60%	0.00%
Campaign 2	Educators	Social Media	Story-Driven	Empowering	83.40%	0.00%
Campaign 4	Healthcare Prof.	Broadcast Media	Story-Driven	Empowering	81.40%	0.00%

Consensus validity metrics confirmed the empirical stability of the dataset. The computed Kendall's Coefficient of Concordance (W) reached 0.807, indicating strong, significant agreement across the 383 independent respondents regarding their primary ranking choices. This was supported by a Spearman's Rank Correlation Coefficient (ρ) of 0.804, confirming a very strong positive monotonic correlation and proving that the computed preference order reflects a highly reliable consensus across the target population.

DISCUSSION

The empirical findings offer critical insights into the contemporary psychology of young consumers when navigating highly sensitive public health communications.

The Primacy of Clinical Authority (Ethos)

The prominent importance of the Speaker attribute (40.70%) introduces a key theoretical contradiction to generalized commercial consumer research. Dominant socio-demographic indicators, such as the Edelman Trust Report (2025), suggest that Generation Z shows a strong preference for peer-sourced advice and decentralized social influencers, reflecting a decline in trust toward traditional institutional figures. However, within the high-stakes context of an infectious disease epidemic, Gen Z Davaoños reject peer reliance, assigning a 0.00% utility score to Friends and concentrating their preference on Healthcare Professionals (40.70%). This indicates that when managing life-altering medical information, young consumers prioritize institutional credibility and professional expertise over relatability and social proximity. This aligns with Jiao's (2023) models, which link institutional health verification to higher personal health empowerment.

Digital Optimization and Narrative Engagement (Logos/Pathos Link)

The validation of Channel (26.60%) and Content (20.40%) highlights how digital platforms shape information processing. The clear preference for social media shows that while young adults rely on institutional figures for scientific truth (Ethos), they require this data to be delivered through their native digital networks (Logos/Pathos interface). However, simply using digital channels is insufficient: the content style must be Story-Driven (20.40%). This confirms that narrative-based frameworks are highly effective at capturing attention and driving emotional retention among digital native cohorts (Tabassum et al., 2020; Uwah & Cheteni, 2024). Gen Z explicitly rejects unstructured user-generated vlogs or unverified viral formats, preferring instead structured, professional narratives that present medical paths – such as clinical testing or PrEP onboarding journeys – in a clear, storytelling format.

The Rejection of Fear-Based Messaging (Pathos Framing)

This confirms the role of tone in communication. Although Message Tone scored the lowest relative importance weight (12.40%), its level configuration shows a clear preference for an Empowering/Motivational tone (12.40%) over a Direct/Factual approach (0.00%). This reflects a broader psychological resistance toward legacy public health campaigns that rely on fear-inducing, punitive, or clinical messaging. To effectively engage Gen Z, campaigns must use supportive language that destigmatizes sexual health choices and builds agency, encouraging proactive self-care rather than passive compliance (Alotaibi, 2025; Braiden, 2025).

Inter-Platform Synthesis and Comparative Literature

This preference profile connects directly with recent local literature. Sumatra (2025) used conjoint analysis to demonstrate that Gen Z values clear attribute segmentation and transparent structural features when evaluating service attributes. When applied to health campaigns, this trend shows that young adults expect high production standards and clear messaging structure, even on social media.

Furthermore, this study highlights a clear distinction between generic commercial marketing and public health marketing: while standard lifestyle brands successfully use crowdsourced, user-generated formats, public health campaigns targeting Gen Z must combine high source credibility with engaging narrative structures to break through social barriers and drive behavioral change.

CONCLUSIONS AND RECOMMENDATIONS

This study successfully determined the preference configurations of Generation Z in Davao City regarding HIV prevention campaigns. The empirical results show that the structural design of public health communications depends on four core attributes in descending order of importance: Speaker (40.70%), Channel (26.60%), Message Content (20.40%), and Message Tone (12.40%).

The study indicates that while Gen Z is a digitally native cohort that spends over seven hours daily on social media, they strongly prefer authoritative, medically sound figures over informal networks when navigating sensitive health information. The ideal campaign configuration blends Ethos, Pathos, and Logos

into a single framework: certified Healthcare Professionals serving as spokespersons, utilizing an Empowering/Motivational tone to deliver Story-Driven narratives via Social Media channels.

The strong mathematical consensus ($W=0.807$; $p=0.804$) confirms that these preferences represent a reliable framework across the target population, offering a clear guide for optimizing public health communications.

Recommendations

1. For Public Health Communicators and Institutional Agencies

The Department of Health (DOH), the Davao City Health Office (CHO), and associated non-governmental organizations should immediately move away from legacy print media and fear-based messaging. Agencies should focus on creating specialized digital content teams that feature trained, youth-friendly medical professionals – such as doctors, nurses, and clinical counselors – acting as health communicators on platforms like TikTok, Instagram, and Facebook. Content should be framed around engaging, story-driven formats, such as step-by-step videos detailing anonymous testing experiences or the daily routine of utilizing PrEP, ensuring the delivery maintains an encouraging and stigma-free tone.

2. For Academic Institutions

The academe should incorporate advanced multi-criteria decision-making models, such as Conjoint Analysis and the PAPRIKA method, into social marketing, development communication, and healthcare administration curricula. Training students in these data-driven communication methodologies ensures that future marketing and public health professionals can design evidence-based campaigns that match the communication needs of changing demographics (Snow et al., 2025).

3. For Future Research

While this study maps clear stated preferences, it remains bound by localized geographic and demographic boundaries. Future researchers should expand this framework through cross-cultural and regional comparative analyses to test if these patterns hold true across different socio-economic groups. Additionally, integrating behavioral tracking metrics via field experiments would provide valuable insights into how these stated preferences translate into actual clinical testing actions and preventative treatments.

FURTHER STUDY

Every consumer preference study faces structural limits that provide directions for future research. Geographically, this research focused on a 400-meter radius around specific treatment hubs in urban Davao City, omitting experiences from rural districts where digital infrastructure and social conditions vary. Demographically, the study evaluated Gen Z as a single group, which may overlook subtle differences between younger students (ages 18–24) and those already in the workforce (ages 25–28) (Mirzaei et al., 2021).

Methodologically, conjoint analysis measures stated preferences within a controlled setting; hence, these scores may not fully predict actual real-world behaviors when individuals face real social pressures. Finally, the attribute

selection was restricted to four key elements from Lasswell's model. Future studies should expand this scope by testing additional design features – such as specific call-to-action (CTA) formats, visual styles, and posting frequencies – to develop a more comprehensive blueprint for youth-focused public health campaigns.

ACKNOWLEDGMENT

The researchers express their deep gratitude to Ateneo de Davao University in the Philippines for its steadfast support throughout the course of this study. Sincere appreciation is also extended to the owners, developers, and support team of 1000minds for their patience and invaluable guidance in navigating and utilizing the online software effectively.

REFERENCES

- Agha, S., Francis, S., Bernard, D., Fareed, A., Azad, K., & Qadri, F. (2025). Effects of a multimedia campaign to increase human papillomavirus vaccine acceptance in Dhaka, Bangladesh. *Human Vaccines & Immunotherapeutics*, 21(1). <https://doi.org/10.1080/21645515.2024.2447105>
- Ahmed, S. K. (2024). Research methodology simplified: how to choose the right sampling technique and determine the appropriate sample size for research. *Oral Oncology Reports*, 12, 100662. <https://doi.org/10.1016/j.oor.2024.100662>
- Al-Omari, B., Farhat, J., & Ershaid, M. (2022). Conjoint analysis: a research method to study patients' preferences and personalize care. *Journal of Personalized Medicine*, 12(2), 274. <https://doi.org/10.3390/jpm12020274>
- Alotaibi, K. A. (2025). Perceived credibility of public health campaigns and its impact on infection control behaviors: mediating roles of health literacy and motivation. *Journal of Multidisciplinary Healthcare*, 18, 3153–3163. <https://doi.org/10.2147/jmdh.s520357>
- Anderson, G. M. H. (2023). *Meet me in the middle: A scoping review on understanding adolescent needs in climate communication* (Unpublished capstone project). University of San Francisco.
- Bansah, A. K. (2020). Designed emotive and logic messages in minimising the challenges associated with healthful eating: Perspectives of nursing students. *Archives of Structural Nutrition and Health*, 4(2), 112–125.
- Bell, E. (2024). Visual consumption and interactive processing parameters within modern generational cohorts. *Journal of Digital Media Engagement*, 11(3), 145–159.

- Berhane, H. (2018). *PAPRIKA method for multi-criteria decision making: Structural properties and algorithmic performance*. Decision Support Architecture Group.
- Braiden, D. (2025). *The behavioral physics of motivational orientation: Creative alignments for adolescent health delivery*. Empowerment Press.
- Bujph. (2024). HIV in the Philippines: a persisting public health crisis closely tied to social stigma. *Brown Undergraduate Journal of Public Health*. <https://sites.brown.edu/publichealthjournal/2024/03/21/hiv-in-the-philippines>
- CIO Davao City. (2025). *Davao City Teen Center offers sexual health access and counseling networks to the youth sector*. Official Gazette of Davao.
- Cordero, D. A. (2025). Exploring the HIV/AIDS epidemic in the Philippines: Initiatives and challenges. *Journal of the International Association of Providers of AIDS Care (JIAPAC)*, 24. <https://doi.org/10.1177/23259582241312294>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*(5th ed.). SAGE Publications.
- Cruthers, A. (2020). *Business writing for everyone: Rhetorical mechanics and message composition*. KPU Pressbooks.
- Department of Health. (2025). *HIV, AIDS, and STI surveillance report of the Philippines: National epidemiology registry diagnostics*. Department of Health Bureau.
- Edelman Trust Institute. (2025). *Trust and health: A parallel ecosystem for Gen Z verification systems*. Edelman Strategy Insights.
- Francisquete, D. E. (2025). Davao 4th in HIV cases nationwide. *SunStar Davao*. <https://www.sunstar.com.ph/davao/davao-4th-in-hiv-cases-nationwide>
- Fromm, J., & Read, A. (2018). *Marketing to Gen Z: The rules for reaching this vast and very different generation of influencers*. Amacom.
- Gabucan, V. J. M. G. (2024). A cross-sectional study measuring the level and relationship of awareness, attitude and willingness to use HIV pre-exposure prophylaxis in Davao City, Philippines. *BMJ Open*, 15(1), e091977. <https://doi.org/10.1136/bmjopen-2024-091977>
- Grover, R., Trambo, I. A., & Antony, S. (2023). Credibility metrics of institutional health representations across digital networks. *Journal of Medical Communication Mechanics*, 8(2), 201-215.

- Hunt, L., Suisse, M., & Serviceplan Suisse. (2022). *Destigmatizing clinical diagnoses through viral network adaptations targeting young demographics*. LBB Research Publications.
- International AIDS Society. (2023). *Key considerations for scaling up combination prevention and achieving institutional 95-95-95 endpoints*. IAS Policy Brief.
- Jansen, S. (2011). The multi-attribute utility method: Operations and validation criteria. *Journal of Multi-Criteria Decision Analysis*, 19(4), 223–237.
- Jaramillo, J., Maya, D. H., Safren, S. A., & Harkness, A. (2024). What makes peers credible? A qualitative analysis to operationalize peer credibility in HIV-prevention and treatment programs for Latino MSM. *AIDS Care*, 37(1), 132–140. <https://doi.org/10.1080/09540121.2024.2437078>
- Jiao, W., Chang, A., Ho, M., Lu, Q., Liu, M. T., & Schulz, P. J. (2023). Predicting and empowering health for Generation Z by comparing health information seeking and digital health literacy: Cross-sectional questionnaire study. *Journal of Medical Internet Research*, 25, e47595. <https://doi.org/10.2196/47595>
- McKinsey Health Institute. (2025). *Meet Gen Z: Social media patterns, self-care routines, and structural digital healthcare pathways*. McKinsey Insights.
- Mendoza, D. G. (2024). Sex, stigma, and HIV transmission profiles in highly conservative environments. *Asia Democracy Chronicles*, 14(2), 45–59.
- Mirzaei, A., Aslani, P., Luca, E. J., & Schneider, C. R. (2021). Predictors of health information-seeking behavior: Systematic literature review and network analysis. *Journal of Medical Internet Research*, 23(7), e21680. <https://doi.org/10.2196/21680>
- Moslem, S., Ghorbanzadeh, O., Blaschke, T., & Duleba, S. (2019). Analysing stakeholder consensus for a sustainable transport development decision by the fuzzy AHP and interval AHP. *Sustainability*, 11(12), 3271. <https://doi.org/10.3390/su11123271>
- Mulder, P. (2025). *Lasswell's communication matrix: Linear operations and message tracking elements*. Toolshero Core.
- Noar, S. M., Willoughby, J. F., & Health Communication Review Board. (2021). Digital optimization and mass media mechanics for youth preventative interventions. *Health Communication Engineering*, 36(4), 412–427.
- Ombler, F. D. (2020). *Improving the operational properties of mathematical preference elicitation: The development of the PAPRIKA protocol* (Doctoral dissertation). University of Otago.

- Orme, B. K. (2010). *Getting started with conjoint analysis: Strategies for product design and pricing research* (2nd ed.). Research Publishers LLC.
- Orme, B. K. (2020). *Getting started with conjoint analysis: Strategies for product design and pricing research* (4th ed.). Research Publishers LLC.
- Patinio, F. (2024). DOH: HIV cases may reach 500K by 2030 unless structural interventions normalize. *Philippine News Agency*. <https://www.pna.gov.ph/articles/1221407>
- Patumbon, R. G. G. (2025). Davao RHCW logs significant enrollment metrics across critical adolescent safety networks. *SunStar Davao*.
- Philippine News Agency. (2024). Municipal allocation indices and treatment tracking for the Davao health grid. *PNA Regional Monitoring*.
- Rahman, A., & Munadi, K. (2019). Communicating risk in enhancing disaster preparedness: A pragmatic example of disaster risk communication approach from the case of Smong story. *IOP Conference Series: Earth and Environmental Science*, 273(1), 012040. <https://doi.org/10.1088/1755-1315/273/1/012040>
- Resonio, M. (2024). *Conjoint analysis: Mathematical principles, research typology, and public sector applications*. Resonio Market Research Publishing.
- Snow, L., Magash, T., & Saaida, M. (2025). Universities as drivers of social progress and evidence-based design. *The New Universities Quarterly*, 41(1), 12–29.
- Srivastava, S., Chauhan, S., Patel, R., & Kumar, P. (2021). A study of awareness on HIV/AIDS among adolescents: A longitudinal study on UDAYA data. *Scientific Reports*, 11(1), 21345. <https://doi.org/10.1038/s41598-021-02090-9>
- Sumatra, E. J. (2025). Tourism preferences of Gen Z in the Philippines: A conjoint analysis of beach resort attributes in Samal Island. *Indonesian Journal of Advanced Research*, 4(4), 365–380. <https://doi.org/10.55927/ijar.v4i4.14210>
- Sun, Z., Gu, Q., Dai, Y., Zou, H., Agins, B., Chen, Q., Li, P., Shen, J., Yang, Y., & Jiang, H. (2022). Increasing awareness of HIV pre-exposure prophylaxis (PrEP) and willingness to use HIV PrEP among men who have sex with men: a systematic review and meta-analysis of global data. *Journal of the International AIDS Society*, 25(3), e25883. <https://doi.org/10.1002/jia2.25883>
- Tabassum, S., Khwaja, M. G., & Zaman, U. (2020). Can narrative advertisement and eWOM influence Generation Z purchase intentions? *Information*, 11(12), 545. <https://doi.org/10.3390/info11120545>

- Talaue, G. M. (2020). Aristotle's rhetorical triangle in advertising: Age dependencies and response metrics. *Journal of Media Management and Entrepreneurship*, 2(2), 54–71. <https://doi.org/10.4018/jmme.2020070104>
- Talaue, G. M. (2022). Aristotle's rhetorical triangle as applied to advertisements: Consumer behavior and purchase intentionality. *International Journal of Applied Management Theory and Research*, 4(1), 1–18. <https://doi.org/10.4018/ijamtr.300280>
- University of the Philippines Population Institute. (2021). *The young adult fertility and sexuality study (YAFS5): Core national data assessment*. UPPI Publications.
- Uwah, C., & Cheteni, P. (2024). Revitalizing folklore for HIV / AIDS messaging in South Africa: the impact of theatrical storytelling on public health communication. *Cogent Arts & Humanities*, 11(1), 2431455. <https://doi.org/10.1080/23311983.2024.2431455>
- Varpio, L. (2019). Using rhetorical appeals to credibility, logic, and emotions to increase your persuasiveness. *Perspectives on Medical Education*, 8(3), 207–210. <https://doi.org/10.1007/s40037-018-0420-2>
- World Health Organization. (2023). *Consolidated guidelines on strategic combination prevention and clinical delivery specifications*. WHO Guidelines Approved by the Guidelines Review Committee.
- World Health Organization. (2025b). *UNAIDS, WHO support DOH's call for urgent action as the Philippines faces the fastest-growing HIV surge in the Asia-Pacific region*. WHO Philippines Press Releases.
- Zhang, L., Tan, P. Y., & Richards, D. (2021). Relative importance of quantitative and qualitative aspects of urban green spaces in promoting health. *Landscape and Urban Planning*, 213, 104131. <https://doi.org/10.1016/j.landurbplan.2021.104131>