

HIV/AIDS narratives: representing Indonesian women in the online information landscape

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Abstract HIV/AIDS cases among women make up more than 30 percent of national incidence every year in Indonesia. Women are disproportionately susceptible due to gender inequality. Access to online information can improve awareness and equip women to identify their risks as a basis to seek medical testing or for those living with the virus to access support and treatment. This study aims to understand the online information landscape about HIV/AIDS in relation to women in Indonesia. Using thematic analysis across 149 online articles, we found the following themes: prevalence (39), symptoms (37), vulnerability (31), awareness programs (20), information about antiretroviral drugs (12) and HIV testing (10), which illustrates a comprehensive coverage of key aspects related to HIV/AIDS among women in Indonesia within online discourse. They highlight a significant focus on epidemiological data, symptomatology, and the specific vulnerabilities women face in contracting and managing HIV/AIDS and efforts to educate the public and promote prevention strategies. Future research should explore how these themes interact with each other and how they influence public perception and healthcare-seeking behaviour among women affected by HIV/AIDS in Indonesia.

Keywords: health communication; health-seeking behaviour; HIV/AIDS; online information; thematic analysis

INTRODUCTION

According to a report from the Ministry of Health (MoH), as of March 2022, there were nearly 400,000 cases of HIV in Indonesia, translating to a prevalence rate of 0.3 percent among the general population. Notably, more than 80 percent of these cases involve individuals of productive age. Among those living with HIV, only half are on anti-viral treatment (Ministry of Health, 2022a). The government's total spending for HIV and AIDS control increased substantially from 2010 to 2020 (Ministry of Health, 2022b). Among those living with HIV, only half are on anti-viral treatment to manage the disease and there is a growing trend of mortality due to the virus (Ministry of Health, 2022b). Controlling the spread of the disease has growingly become the government's priority, indicative of substantial increase of government's total spending for HIV and AIDS from USD 68,000 in 2010 to USD 157,000 in 2020 (Ministry of Health, 2022b).

In Indonesia, women account for over 30% of infections per year on average, and cases of HIV and AIDS among women continue to increase over the decades (Ministry of Health, 2022b). Across the women population, HIV cases is highest among housewives, female sex workers and female youth, where these groups have become one of the few key population groups in Indonesia's national HIV prevention strategies (Ministry of Health, 2022b).

Women are disproportionately affected by HIV and AIDS due to gender inequality and a range of other socioeconomic factors, which impact their abilities to practise safer sex and make reproductive decisions (Efendi et al., 2020; Lin et al., 2024; van der Wal et al., 2024; Wardhani et al., 2023). Social stigma also prevents women from disclosing their HIV status,

getting tested, or for those who live with the virus to seek treatments (Wardhani et al., 2023). Adequate information is a pertinent component to help reduce women's vulnerability to HIV (Wardhani et al., 2023)

The growing penetration of the internet and technology has offered unlimited and accessible health information to inform people about their health risks and medical interventions to prevent risks and manage disease (Bujnowska-Fedak & Węgierek, 2020). Indonesia has also displayed significant growth of internet penetration over the years. By 2023, 78% of Indonesia's population will be connected to the internet (Association of Indonesia's Internet Users (APJII), 2023) from just 11% in 2010 (World Bank, 2022). Data show minor differences in internet penetration across both male (79%) and female (77%). This digital connectivity not only facilitates greater access to healthcare knowledge but also enhances the potential for individuals to make informed decisions about their health and well-being (Bujnowska-Fedak & Węgierek, 2020).

Using popular search platforms on the internet, people engage in a simple process to attain information quickly with the additional advantage of anonymity and affordability (Peng et al., 2019). There is a wealth of information online available on health and illnesses that can support informed health-seeking behaviour. This includes resources on symptoms of diseases, diagnostic procedures, treatment options, preventive measures, lifestyle changes, medication information, and guidance on accessing healthcare services. Websites of reputable health organisations, government health departments, and online health forums provide diverse and reliable information to empower individuals in managing their health effectively by making informed decisions about their health conditions, empower them to take proactive steps in managing their well-being, and enhance their overall health literacy (Ghahramani & Wang, 2020; Jia et al., 2021; Nangsangna & da-Costa Vroom, 2019).

This feature is useful for many women living with HIV who battle against societal stigma, and as a result, more likely to conceal their HIV status and less likely to get tested and attain medical support (Najmah et al., 2020; National Commission for Violence Against Women, 2019). Visiting a healthcare provider is often a struggle due to the fear of being judged in society and its potential risks of losing their livelihood (Fauk et al., 2022; Najmah et al., 2020)

Information dissemination through offline channels also offer equal means of education. These include information that are communicated during healthcare visits, community engagements, government efforts, and school and workplace education programs. In the context of HIV and AIDS control, and akin to many other disease prevention strategies, digital-based information can complement and further strengthen these existing efforts (Lwoga, 2019; Peng et al., 2019). The online space can offer a wide range of information that can be accessed conveniently from home and offers an option of support services that allow patients to stay anonymous, a key feature to help many patients who are yet comfortable to access them in person (Feldstern, 2022). This feature and information may benefit women living with HIV who battle against societal stigma and are more likely to conceal their HIV status and less likely to get tested and attain medical support (Najmah et al., 2020; National Commission for Violence Against Women, 2019). Visiting a healthcare provider is often a struggle due to the fear of being judged in society and its potential risks of losing their livelihood (Fauk et al., 2022)

One of the various underpinning frameworks behind health communications that is relevant in this study is that quality information can change behaviour (West, 2021). Access to quality online information can improve patients' understanding and therefore, approaches in managing their health conditions and treatments (Zarocostas, 2020). While quality of information across the online space can vary (Ramadaniati et al., 2024), attaining a general sense of this quality allows us to assess its adequacy and identify any deficiencies that can inform future information production. In the context of HIV discourse, it is crucial to examine facets of the topic, including epidemiological data, symptomatology, strategies in managing HIV/AIDS and medical interventions. This also includes the specific vulnerabilities women face in contracting and identifies how online media portray HIV and women's representation in this epidemic as a contributory factor to ensuring quality information. This plays a significant role in shaping public perception and either reinforcing or reducing stigma associated with the issue as well as affecting how women approach disease management and prevention (Zarocostas, 2020).

The powerful role of online information in influencing health decisions is due to improved health literacy of the targeted population (Bazrafshani et al., 2022). While this indicates a grand opportunity to improve health outcomes through expanding education channels,

ensuring that information is accurate in providing health advice and portraying the disease in relations to important social issues such as its interplay with gender concepts is important to achieve this goal (Bazrafshani et al., 2022). This is especially relevant as evidence shows that women are more likely to access online health information (Jia et al., 2021). Analysing the quality of online content helps to understand what accessible information is available and how the producers of the content frame the issue in relation to women. Objectivity is a standard practice required to uphold high quality reporting in health issues, where reliable sources often aim to reduce stereotyping and biases in portraying gender differences (Estacio et al., 2019; Reback & R nger, 2020).

Studies have explored how online information can have positive impact in improving knowledge about HIV and AIDS, including among women (Estacio et al., 2019; Virdausi et al., 2022). A vast number of them aim to understand the intrinsic motivation and behaviour behind women accessing information online using qualitative data collection approaches (Gerke et al., 2020; Ghabrial et al., 2020; Hamidi, 2022; Kudrati et al., 2021; Sara, 2023; Veronese et al., 2020) and one on how patients assess credibility of information (Choi, 2020). However, very few are aimed to focus on how the online contents represent women in this context of epidemic (Darien et al., 2023; Ghabrial et al., 2020; Noviana et al., 2020) and across these studies, the content analysis predominantly focus on online support services exclusively.

Studies within the Indonesian context is even far limited. The recent study in Indonesia aligns with the majority of studies worldwide, focusing on understanding how patients as active users of the internet utilise the platform to find the information they need on their health (Noviana et al., 2020; Ramadaniati et al., 2024; Wisudawati et al., 2021) but none conducted over the last recent years aim to offer a review of how the online space portray women exclusively, who are a key population group of this epidemic. This focus area serves as a critical contribution since framing of information pertaining to health risks is important considering the large stake at play, such as prevention in receiving treatments or necessary tests. Differences in context is a significant factor to how HIV and women are viewed (Britto et al., 2016; Veronese et al., 2020), influenced by diverse level of HIV awareness as well as cultural, social and political factors.

Using thematic analysis, the authors aim to study the contents of online information on HIV and AIDS and its resulting portrayal of women in Indonesia. This is a key groundwork that is currently lacking in the literature. The themes produced during the analysis can inform whether or not online articles offer adequate information for people to access. We also established an understanding of how online articles portray women in relation to HIV and AIDS, that contribute to shaping public perception about the issue. Findings from this study can benefit women who may be information seekers, or feed into the decision-making process for actors working in this space.

The authors' findings can be one of the bases to design future research, particularly on how to deliver information that can be effective to enhance knowledge and health behaviour for HIV prevention and management. The authors excluded user-generated contents in the analysis such as the following: blogs, social media or online health forums. There may be another room to explore for future research, as user-generated platforms display subjects' interactions that represent health-seeking behaviour and offer additional insights.

METHODOLOGY

Thematic analysis extracts themes or patterns of meaning within textual information (Braun et al, 2023). The decision to use thematic analysis supports the analysis process in producing key themes of women representations in HIV online discourse. Thematic analysis is used in research when the goal is to explore, understand, and interpret information to identify patterns and meanings to generate key themes. It also provides a flexible and systematic approach to analysing information across various research contexts and disciplines (Braun & Clarke, 2023) and, therefore, may best accommodate the objective of this study. While thematic analysis is widely used and acknowledged for its flexibility, the method relies on the ability of the researcher in making interpretations and therefore, may involve some level of subjectivity (Liu, 2024). Subjectivity cannot be avoided entirely and may be beneficial to some extent. For example, researchers who have the local wisdom and cultural understanding of the topic can offer more insights into the analysis (Braun & Clarke, 2023). However, researchers need to achieve a balance to prevent their knowledge from creating biased results. This can be achieved through

providing a set of clear coding procedures. This may include the process of identifying and grouping keywords to generate the themes as a supporting step to verify findings from latent interpretation (Naeem et al., 2023). Keywords are essential for creating codes that accurately reflect the underlying meaning of the data (Naeem et al., 2023).

To ensure quality analysis, we conducted a number of steps in the data collection process. With the open-access web scraping tool called Apify, we collected online articles for analysis. The software allows a much simpler retrieval and exporting process of articles to an analysis-ready format. In web scraping, Apify works by mimicking a google search result. In Google, the return result has some level of personalisation across users due to a unique algorithm, meaning differences in articles that appear per search, given the same input of keywords across servers/users. We ran the command on Apify using the keywords 'HIV' and '*perempuan* (women)'. Given that the study aims to interpret information within an Indonesian context, we employed Indonesian keywords.

In this study, the researchers conducted the analysis on news from media outlets, health websites and government as well as non-government websites. The researchers excluded user-generated contents such as social media and online support groups to ensure consistency of findings. While user-generated contents can offer trustworthy information for patients (Jia et al., 2021) they are by nature different to conventional articles in terms of interactivity, exclusivity and absence of information quality check. The researchers also excluded academic journals and official documents in the analysis to uphold consistency, where the two are highly distinct in length of information and the quality control or reviewing standards which takes a more rigid process. From the number of articles generated from this search, the researchers excluded irrelevant articles or ones that do not fall under our pre-determined parameters as outlined above.

During the first stage of the interpretation process, the researchers immersed themselves into the data through repeated readings to identify initial patterns and themes to become familiar with the articles. We then generated initial codes by identifying interesting features of the data in a systematic fashion. We then organised codes into potential themes by grouping similar codes together. The final stage is refining and defining the themes by reviewing them against the coded extracts and entire dataset. The researchers articulated what each theme captures and assign descriptive names to each of the themes. Additionally, we have also assessed the accuracy and quality of information and examined variations of this factor across different themes or platforms. This analysis may contribute to the main findings by exploring whether reporting quality correlates with the portrayal of women. In cases where we see multiple themes that appear in each article, the researchers have selected the dominant theme that is most discussed and matched with the headline. Headlines can be a key guidance in classifying the information into themes as they best represent the body of the article. We also have examined whether the differences in reporting are visible across different sources or channels.

The limitation of the software program and search engine infrastructure will also translate to the limitation of this study. The software Apify is built to closely represent how search engines work. Hence, we may assume that outputs will closely resemble the real setting of when any user conducts their online research about the topic. This study also does not aim to comprehensively audit information quality. However, we conduct some work in evaluating the information alignment, accuracy and relevance with subtopics and framings of HIV and AIDS outlined in prior studies.

RESULTS AND DISCUSSION

The author attained 149 most recent articles from the following sources: 59 articles in media or news outlets – from both online news sites and national media channels, 54 articles in government websites – including regional governments and national ministries, 19 articles in mHealth services/applications, seven articles in hospital / pharmaceutical chain website, six articles in international organisations such as the UN agencies, World Health Organization and World Bank, and four articles from a local NGO (See Table 1 and Table 2).

The author built our themes through identifying and grouping common and frequently appearing keywords prior to conducting analysis at the latent level. The keywords are summarised in table 3.

Table 1. The Different Online Channels

Channel	Description	Number of articles
News Outlets	National and regional media, including online news sites (i.e IDN, Tirto) and national media channels (i.e Kompas, Detik, AntaraNews)	59
Government Website	National and regional government, ministry	54
mHealth Services	Web-based services of mHealth applications (i.e Halodoc, Alodokter)	19
Hospital / Pharmacy Website	Websites of hospital or pharmacy (i.e Siloam, Mitra Keluarga) and pharmaceutical chains (i.e Apotek24, Kimia Farma)	7
International Organization Website	UN agencies, international health organizations	6
Local NGO Website	Indonesian organisations working in HIV control	4

Notes: Results from the software run after eliminating academic journals and organisation papers and documents. (Source: Author, 2024)

Table 2. Themes

Theme	Number of articles
Prevalence	39
Symptoms	37
Vulnerability	31
Awareness Programs	20
HIV Management (Antiretroviral drugs/ARV)	12
HIV Testing	10

(Source: Author, 2023)

Table 3. Common Keywords Across Themes

Theme	Keywords (in addition to 'women' and 'HIV/AIDS')
Prevalence	ID: <i>prevalensi, statistik, persentase, pekerjaan, ibu, ibu dan bayi, ibu rumah tangga, istri, remaja perempuan, pekerja seks perempuan</i> EN: prevalence, statistics, percentage, occupation, mother, mother to baby, housewives, wives, female youth, female sex workers
Symptoms	ID: <i>infeksi vagina, ovarium, menstruasi, fertilitas, tumor, penyakit menular seksual, periode inkubasi</i> EN: vaginal infection, ovarium, menstruation, fertility, tumor, STIs/STDs, incubation window
Vulnerability	ID: <i>rentan, perlindungan, faktor biologis, ketimpangan, kekerasan, ketergantungan ekonomi, pengetahuan, poverty, diskriminasi, stigma, TB (tuberculosis)</i> EN: vulnerable, protection, biological factor, inequality, violence, economic dependence, knowledge, kemiskinan, discrimination, stigma, TB (tuberculosis)
Awareness Programs	ID: <i>penyuluhan, sosialisasi, pelatihan, kesadaran, intervensi, pengetahuan, informasi, pemberdayaan</i> EN: education, socialization, training, awareness, intervention, knowledge, information, empowerment
HIV Management (ARV)	ID: <i>wanita/orang dengan HIV/AIDS (ODHA), pengobatan antiretroviral, penanganan, remisi, kualitas hidup, transmisi ibu dan anak</i> EN: Women living with HIV/AIDS, antiretroviral treatment, management, remission, quality of life, mother and baby transmission
HIV Testing	ID: <i>tes HIV, jendela inkubasi, Voluntary Counselling Testing (VCT)</i> EN: HIV test, incubation window, Voluntary Counselling Testing (VCT)

Notes: ID (Indonesian), EN (English). Identifying and classifying keywords was the first step to arrive at the themes. To support the analysis, we also conducted latent interpretation and identify hidden frames. (Source: Author, 2023)

Prevalence

The Author found 39 articles describing the prevalence of HIV among women in Indonesia. They are found mostly across government websites, amounting to 23 articles, news outlets with ten articles, hospital/pharmacy with three articles, two articles on mHealth application, and 1 article on international organisation echoing from Indonesia's HIV cases trends in women. Articles imply the spread of HIV in the women population as rampant, using terms such as 'drastic', 'disastrous' or 'alarming'. HIV and AIDS is framed as a life-threatening disease that affects women, with keywords such as 'deathly', 'concerning' and 'dangerous'.

'Prevalence' is the most common across articles, overwhelmingly derived from government websites. The epidemiology aspect of the disease remains the primary focus of HIV

across the online space. The majority of the articles provide elaboration to explain the relatively high number of cases in women, referencing the widely acknowledged factors behind women's susceptibility.

Articles report key statistics on the percentage of HIV cases, and the breakdown of cases per occupations as well as age group. Based on occupations, articles overwhelmingly report housewives as the group with the largest number of cases. A press release by the Ministry of Women Empowerment (Komnas Perempuan) reveals that a housewife's transmission 'contributes around 30% of heterosexual transmission cases from their husbands'.

This, according to articles, reflects a 'surprising' number, since housewives are not known as one of the key population groups, in comparison to more commonly associated groups such as female sex workers. Articles offer context, implying that housewives fall 'victim' from their husbands' behaviour and due to having poor knowledge. Across age groups, female youth remain the group with the largest number of cases. Several articles described 'illicit relationship' as among the biggest factors to HIV transmission among youth.

Articles also classify cases based on infection pathways. Unprotected heterosexual intercourse is considered the major cause of cases among women. Mother-to-baby transmission is, however, the most frequently discussed. While it does not make up the largest number for this category, mother-to-baby transmission is considered a preventable infection pathway, and the management of the virus in pregnant women is portrayed as an effective strategy to prevent further cases.

In practice, understanding prevalence can inform women about their risks. Through portrayal of 'alarming' statistics, women may understand their chance of contracting the virus. Articles also offer statistics based on transmission routes to enhance risk information, possibly helping women practise safe behaviour and avoid risky chances.

Symptoms

The author found 37 articles reporting symptoms of HIV, the majority of which appeared in news outlets or media, amounting to 21 articles, from a government website with eight articles, five articles in mHealth application, two articles in hospital/pharmacy channel, and 1 article in local NGO. The general and several female-specific symptoms share common descriptions across the articles. This is a highly important topic that is often paired with descriptions of associated risky behaviours, to help women assess if they should seek medical testing.

According to the articles, women with HIV share several common symptoms, including vaginal yeast infection, chronic pain, irregular menstruation, pelvic inflammatory disease, chronic pain as well as fertility issues and early menopause. Articles also inform the other general symptoms of HIV and AIDS, including night sweats, fever, swollen lymph glands, infections, and chronic cough, among others. People living with the virus are also portrayed as more susceptible to developing other life-threatening diseases such as tuberculosis, meningitis, and certain cancers. Details about the disease incubation window or when women are expected to observe the symptoms are more common across bigger and more reputable websites such as mHealth applications and national media outlets.

Other articles offer information on symptoms of AIDS, revealing that many women who are HIV positive are predisposed to cervical, uterine and breast cancer during the disease's later stage of development. Headlines across most of the articles stress the unique symptoms of women. Examples found in mHealth applications include 'Difference between symptoms of HIV in Women and Men' and 'Must Know, Here are the Symptoms of HIV in Women that Should Not be Ignored'. Other reports frame the symptoms as highly similar to mild illnesses and are often missed with headlines such as 'Symptoms of HIV in Women can Mimic the General Flu'.

Most articles also encourage women to self-assess their risks based on the described symptoms and whether or not they have engaged in risky behaviours. Some of the risky behaviours often mentioned include unprotected sexual intercourse, illegal drug injections or engaged in relationship with someone who is HIV positive.

The list of symptoms, however, can easily overlap with other symptoms of other STIs or illnesses. While some articles offer this explanation, the majority do not. In describing symptoms that women may encounter, articles do not inform the statistics of how common they appear. Women may benefit in knowing the most generally reported symptoms against the less common symptoms.

Vulnerability

The author found a total of 31 articles on this theme: 13 articles spread across news outlets, eight articles on government websites, six articles in mHealth applications, three articles in International organisations and 1 article in local NGO. This section can be classified into several sub-themes, including socioeconomic factors, and specific groups on female inmates' vulnerability, and housewives living with HIV and AIDS.

Socioeconomic factors

This theme represents articles that describe gender-specific factors behind women's vulnerability to HIV and challenges faced by women living with HIV and AIDS. The articles outline key factors such as poverty and gender-based inequality, stigma and discrimination. A small number of articles describe women's reproductive organ or biological factor as an intrinsic cause behind the susceptibility. This can be summed up in an article published by a national news outlet titled, 'Why Women are More Prone to Contract HIV',

...women must be aware they are more vulnerable [to contracting HIV] than men...in men, their penile lining is thick and it is not susceptible to tear, while it is the opposite for women's reproductive organ, where simple rubbing can cause trauma," and also framing women "weaker than men in social aspects" that will further place them at risk (Santosa, 2015)

Housewives living with HIV

Another prominent sub-theme under this category is portrayal of the 'housewives living with HIV'. This sub-theme focusses on describing the challenges of housewives living with HIV. An article written by a local NGO working in HIV awareness,

...women are already vulnerable due to patriarchal culture in Indonesia, and this vulnerability will double if they are HIV and AIDS positive due to stigma, violence and discrimination (Yayasan Spiritia, 2014b)

One article by Indonesia's National Commission for Violence Against Women – Komnas Perempuan describes the imbalance of power as a barrier to many housewives living with HIV and AIDS in receiving antiretroviral (ARV) drugs,

...requiring permission from husband [in accessing ARV] illustrates housewives' vulnerability, especially when they are pregnant and at the end will worsen their health. The husband's risky behaviour impacts their wives who are pregnant and show an imbalance in relations in a household (National Commission for Violence Against Women, 2023).

We also found a number of articles implying that housewives should learn the tell-tale signs of marriage affairs to prevent their risks, with statements such as 'Signs of Cheating Husbands to Watch Out For'.

From a number of articles with a similar portrayal of the 'victimised' housewife, we found one article that represents a more 'empowered' housewife of a woman named Konstance from Papua. The article published by BBC Indonesia shared the journey of Konstance in overcoming her sadness after learning about her HIV positive which she got from her husband through dedicating her time in the community to offer support for other people living with HIV. Articles with this frame are an overwhelmingly small number compared to the other common portrayal of the 'weak', 'vulnerable' and 'victimised' housewives.

Female inmates

Across several articles, female inmates are portrayed as a vulnerable group to HIV, and that the right knowledge can help reduce their risks. As can be referred to in an article written by the UN, female inmates are prone to gender violence, have poor access to health facilities, face extreme psychological challenges, and live in an environment of high illegal drugs use. The articles also report the government's focus in addressing vulnerability of female inmates, reported across regional ministries in Gorontalo, Yogyakarta, Palembang and areas in Greater Jakarta.

Most articles in this study accurately picture female's susceptibility through highlighting household power relations, which affect their ability to perform HIV tests or access ARV treatment. A few articles, however, do not fully uphold the same reporting practice, where this is best reflected in how the media portrays housewives - another group discussed under this theme. A few place the responsibility on housewives to identify signs of marital affairs, instead of identifying root causes such as power imbalance or lack of financial independence (Efendi et al, 2020). This information may offer better news value for the audience. It also may offer practical value for women to identify the signs of marital affairs and take actions.

HIV awareness programs

This theme appeared in 20 articles, informing programs to improve awareness about HIV and AIDS among women. This theme mostly appeared in articles across news outlets, amounting to 8 articles, 7 articles appearing as press releases in government websites, 3 articles in the mHealth application, and 2 articles in international organisation websites.

Several common findings built the theme. HIV and AIDS epidemic control is framed as one of Indonesia's key agenda due to increasing cases, including among women. Articles portray women with poor knowledge about HIV and AIDS and they are a key group to target in order to reduce overall cases across the country. Majority of the programs identified across the articles are targeted for women to prevent themselves from the illness, while others are designed for women with HIV positive. Some of the programs also target women and children simultaneously as children are perceived as susceptible if their mothers live with HIV and AIDS. Education programs are considered an effective solution to attain epidemic control, as implied across the articles. Finally, programs are pictured as a collaborative effort, in the forms of multistakeholder approach and stronger participation of women subjects.

Equality is also another supporting theme, suggesting that including women in HIV control efforts is effective for overall national reduction strategies. An article by the Ministry of Health in 2022 reported their 'Unite Steps to Prevent HIV, All Equal to End AIDS' theme during International HIV and AIDS Awareness Day, which upholds the principle of 'attaining equality for all, especially women, children and youth'.

We classified a number of intervention programs mentioned, including community programs at village level or programs for youth - several of which take place in schools. Other articles that appear less include programs surrounding small community movements and capacity building programs for healthcare professionals. Actors who are behind the programs mentioned in the articles are overwhelmingly government actors who are also the publisher of the articles. These include regional governments followed by a number of ministerial bodies, such as the Ministry of Women Empowerment, Ministry of Health, Ministry of Human Rights and Ministry of Law. The other actors include international organisations and NGOs.

The updates about the programs may not only serve to inform the public, but also as means to promote the organisation's work in this space that is critical to improve organisations' credibility in this issue and attain public support. Reporting about awareness programs can also inform women to seek participation, identify their eligibility to participate in the programs, and offer information of upcoming agenda or events.

HIV Management (Antiretroviral - ARV drugs) for Women Living with HIV (WLHIV)

This category of articles (12) that were found across government websites with five articles, four articles in news outlets, two articles in the mHealth application, and an article in a local NGO featuring information about Antiretroviral drugs as treatment of HIV and AIDS. The media frame ARV as HIV's primary treatment, arguing that they are beneficial to prolong healthy lives but unfortunately, low in take-up. We found majority of articles in news outlets frame the benefit of ARV in association with women's childbearing roles and its relations with mother to baby transmission,

Once status is known, women can access ARV and take them consistently. Women with HIV and AIDS would be able to live healthy, get married, plan for pregnancy and prevent HIV transmission among their kids later. HIV and AIDS is no longer a death sentence (Yayasan Spiritia, 2014a)

These articles imply that ARV is beneficial for the health of infants and that women hold the primary responsibility to ensure this is achievable. Articles highlight the challenges of ARV

take-up being low and how this can harm the objective to reduce mother to baby transmission. Being an important sub-theme, factors behind low consumption of ARV surround mother's lack of knowledge and not knowing their HIV status. One article wrote about a case on how a mother was regretful upon knowing they passed their virus onto their children, suggesting it was the only concern she had about her whole ordeal. Across the other 7 articles we found, all mentioned how awareness about accessing ARV is low across HIV positive women due to imbalance of power in household and societal stigma.

Only a few numbers discuss the purpose of ARV outside mother to baby transmission. One article written in Kompas - Indonesia's biggest news outlet, featured a close-up and personal stories about a woman living with HIV. The article featured Dyah, a housewife who suffered through depression after learning of her HIV positive status which she received from her husband. Due to low awareness and society stigma, Dyah was not on medication. It was not until there was support from the community that she was able to access medication.

Taking ARV may also be framed as more of a solution to prevent further transmission in mothers to babies. In some articles, the health of mothers is considered important only to prevent the virus from passing onto their children. Articles seem to underreport women's interests for their own wellbeing as very few pivot about its benefits in improving women's quality of lives, independent of women's roles as mothers.

HIV testing

The author found ten articles on the topic of HIV testing distributed across news outlets, three articles on government websites, two articles on hospital/pharmacy channels, 1 article on mHealth application websites, and 1 article on local NGO. The number of women receiving HIV tests is displayed with very low statistics, which is framed as a problem. One article calls it looking at the 'tip of an iceberg', indicating that there are many more cases that are yet to be reported because of the low number of HIV tests.

The very few articles under this theme stress the importance of getting tested for women who feel they are at risk. These articles acknowledge the fear women may have in getting tested and address the fear by establishing an understanding about the greater risks of avoiding HIV tests on their health and future livelihood. Articles also offer information about the details of testing services that women can access. All this can be reflected in an article published by one of Indonesia's popular mHealth application website,

...you do not need to be scared or be ashamed to consult with doctors if you feel you are at risk. Right now, there are many services for counselling and HIV treatments called VCT (Voluntary Counselling and Testing) ...early detection is key to receive treatment at the earliest possible. Through early detection, we can minimise the risk of AIDS and other complications from HIV (Agustin, 2022)

We find several portrayals in articles suggesting that HIV testing is important to prevent mother to baby transmission. The common narrative suggests that testing rates are low, and transmission can be curbed along with increasing take-up of HIV tests among women.

In addition to informing about benefits, access and process of testing, articles offer critical information on HIV window period, at 3, 6 and 12 months post risky behaviour. One article also mentioned further about Indonesia's National Health Insurance (BPJS Kesehatan) that can benefit customers to perform HIV testing. This includes information about eligibility, claim process and partner hospital locations.

Articles from mHealth applications and hospitals use this topic to provide a 'call to action' by encouraging women who associate themselves with the risks to get tested using their services. Some provide phone numbers and website addresses for a more convenient process.

We identified a smaller number of articles for the theme, 'HIV Testing' as initially expected considering the importance of the topic. The articles we include in this category offer additional and practical information, such as process, incubation window alignment, locations, costs and insurance. Although it may be a common instinct for patients to seek care after reading about their risks, it may not be a straightforward process for women as they face greater obstacles seeking access to testing (Efendi et al., 2020).

Reporting quality in the media channels varies (See Figure 1), with the credibility of the source playing a role in how information is presented. Information from reputable sources such

as government health websites tends to be more objective than that from commercial sites (Choi, 2020) providing key messages to report factual information. We also observed some differences in framing women across news articles and overall quality of information based on channel types. International or local NGOs, mHealth applications and hospital chains appear to uphold slightly more neutrality in portraying women with accuracy of information almost guaranteed. News sites on the other hand, display differences across giant/national outlets and smaller news sites.

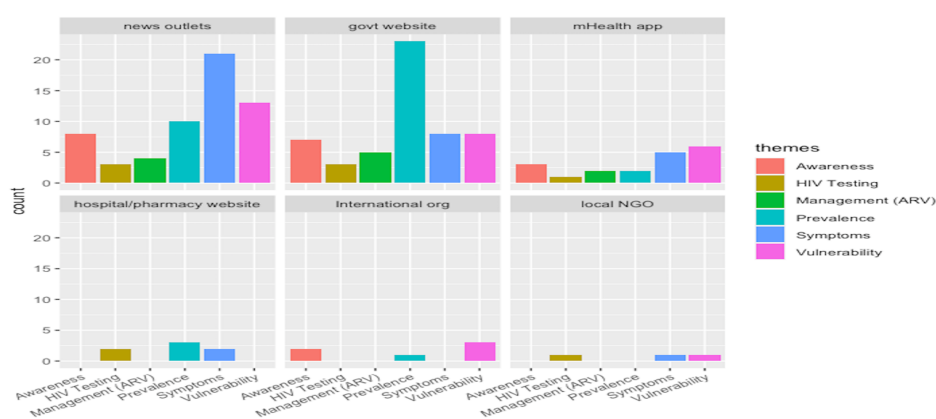


Figure 1. Themes distributed across channels Discussion
Source: Author, (2024)

Across the themes, vulnerability is most likely to report subjectivities and bias information, with common portrayal of women across these themes in articles, many depict women with unfavourable traits, portraying them as weak and unempowered victims of the epidemic. Findings may partially reflect on challenges faced by women in Indonesia in real-setting (Efendi et al., 2020; Fauk et al., 2022; Rahmalia et al., 2021), but narratives in the media are potentially exaggerated to enhance newsworthiness. Some of the articles are stereotypical in portraying women as more susceptible than men and are victims to gender imbalance and less acknowledgement about women's ability in making reliable decisions or representation of women as empowered individuals. Framing of mothers also reflects the image along this line, suggesting traits of mothers who are selfless. Additionally, we found a few articles framing women as actors who bring about the virus due to behaviours that do not align with existing cultures. The best example is the female youth with their outside marital relationships, most common under the 'prevalence' theme. The themes offering medical advice such as HIV testing, ARV treatment and symptoms generally offer slightly more objective information.

Findings offer valuable and novel insights that may contribute to key frameworks of health communications disciplines. This study may contribute to understanding how the rise of e-health can improve education for patients and the more contemporary issue of addressing gender-based barriers to improve information uptake (Bartz et al., 2020).

CONCLUSION

The rampant growth of the internet offers great opportunities to seek health information online, including the topic of HIV and AIDS and its association with women. Having information across popular platforms online can also ensure HIV and AIDS continue to stay relevant in the public domain, which may contribute to ensuring HIV and AIDS control remain an important focus in Indonesia.

There is a comprehensive coverage of key aspects related to HIV/AIDS among women in Indonesia within the online space. The themes: prevalence, symptoms, vulnerability, awareness programs, HIV testing and HIV treatments suggest that the online information landscape in Indonesia on HIV and AIDS align with national priorities and strategies about the disease, such as its social epidemiology and strategy of medical interventions for women. They highlight a significant focus on epidemiological data, symptomatology, and the specific vulnerabilities women face in contracting and managing HIV/AIDS. The presence of awareness programs underscores efforts to educate the public and promote prevention strategies. Additionally, the inclusion of information about antiretroviral drugs and HIV testing reflects a

commitment to informing readers about treatment options and diagnostic procedures. Future research should explore how these themes interact with each other and how they influence public perception and healthcare-seeking behaviour among women affected by HIV/AIDS in Indonesia. In articles' portrayal of women across these themes, many articles assign women with unfavourable traits such as weak and unempowered, who are victims of the epidemic.

Although online information cannot replace healthcare visits, it can empower women to conduct self-risk assessments conveniently, even with limited resources, aiding their decision-making in seeking medical care. Moreover, it can highlight gaps in online information, guiding media in producing more relevant content in the future. Future research should investigate women's access to this information and assess any resulting changes in knowledge or behaviour.

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