



Visual Representations of Stunting Prevention Communication in Indonesian Government Social Media

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Abstract.

Stunting remains a serious public health problem in Indonesia and has been an important issue in government communication programs. Social media has emerged as a crucial platform for government agencies to disseminate public health information and raise public awareness of stunting prevention in recent years. Visual material is a big part of digital communication and understanding how health issues are conveyed visually can help us understand current practices in public communication. This research examines how Indonesian government social media shows stunting prevention. Quantitative content analysis was undertaken on 151 posts from the period of 2023-2025 from three social media accounts associated to the government participating in stunting communication, namely @ayosehat_kemenkes, @kemenkes_ri, and @tp2stunting. Four categories of visual elements were identified: infographic graphics, human-centered visuals, nutrition and food images, and symbolic visuals. A descriptive analysis was performed to describe the distribution of the visual representations over the dataset. The findings suggest that the visual representations of the government's social media information on stunting prevention are varied. Pictures of nutrition and food are often used in instructional materials on child nutrition and healthy eating. Human centered images are often used to represent target audiences and public health efforts. Infographic graphics are used as a tool for simplified communication of health information. Symbolic visuals are used to help support larger health messages and campaigns. The visuals show how government agencies use digital media to promote public health goals and public awareness of stunting prevention. This research adds to the discussion on public communication and digital governance by mapping the visual practices in governments' social media communication. The findings offer practical guidance for the design of future public health communication content for digital settings.

Keywords: visual communication, public communication, digital governance, stunting prevention, government social media, Indonesia

1 Introduction

Indonesia still faces stunting as a major public health problem, although some progress has been made in recent years. The Indonesian Nutritional Status Survey

(SSGI) in 2024 revealed that the national stunting prevalence dropped from 21.5% in 2023 to 19.8% in 2024. However, there were still huge disparities between provinces with around 4.4 million Indonesian children under five stunted. Current data show that the prevention of stunting is still dependent on ongoing public health efforts and the continued dissemination of preventative knowledge to households and communities [1].

Prevention of stunting is strongly related to health information on maternal nutrition, breastfeeding, complementary feeding, monitoring of children growth, and healthy living practices. Much of this information is expected to be understood and applied in everyday family life. The presentation of health information is therefore important, particularly when communicating with audiences with different educational and health literacy backgrounds. A systematic review and meta-analysis by Schubbe et al. [2] found in 2020 that the inclusion of images in health-related information enhances comprehension, retention, and understanding, offering significant advantages particularly for individuals with poor health literacy. This evidence shows that delivery of preventive health information in accessible formats must be appropriate.

Public health institutions have broadened communication channels and increased social media use. Health organizations and government agencies are increasingly utilizing social media to disseminate health information, educate health and communicate public health issues to wide audiences. In 2021, Chen and Wang [3] conducted a systematic review and found that social media in health contexts mainly acted as health education, information dissemination, health promotion and communication. Moreover, social media has also been identified as a relevant channel to disseminate stunting prevention information to the public in Indonesia [4]. Consequently, government social media has become an important digital space in which public health priorities are presented to society.

Visual forms are increasingly shaping communication on social media. In digital environments, long textual explanations are often enhanced or replaced with images, videos, illustrations, icons, charts and infographics. The World Health Organization [5] claims that visual messages can help people with varying literacy and educational levels understand and access health information. Visual communication resources, such as pictures, charts, graphs, and diagrams developed by the Centers for Disease Control and Prevention suggest that they can help communicate complex health information and enhance health messages written or spoken [6]. As a result, the visual component of modern social media facilitates an instant comprehension of the visual representation of public health issues in digital communication.

The significance of visual forms in health communication is also demonstrated by empirical study. In 2024, Galmarini et al. [7] published a systematic review and meta-analysis of visual-based interventions can enhance health literacy and comprehension of health-related information. Additionally, infographics are being utilized more frequently to summarize complex scientific and health information into a visual style

[8]. A recent scoping study of public health data visualization highlighted the importance of visual communication in conveying complex public health information to a variety of audiences including the general public, health professionals and policy makers. Collectively, these studies suggest that visual elements are a salient feature of contemporary public health communications, not simply a decorative feature in digital content.

A lot of the social media research in public health has been on information dissemination, health promotion and engagement of the public [3]. Research in Indonesia has also examined social media as a campaign channel for stunting prevention [4]. However, specific attention to the visual representation of stunting prevention on Indonesian government social media is relatively limited. The presentation and visibility of a public health issue within digital environments can be significantly influenced by visual communication. Analyzing recurring visual elements in government-created content can thus offer a descriptive insight into how stunting prevention is presented in public digital communication.

Against this background, this study examines visual representations of stunting prevention communication in Indonesian government social media. The study focuses on content published by three government-related social media accounts involved in health and stunting communication: Ayo Sehat, Kementerian Kesehatan Republik Indonesia, and TP2 Stunting. Specifically, the study aims to identify the distribution of human-centered visuals, nutrition and food visuals, infographic visuals, and symbolic visuals in the analyzed content. The study offers a descriptive mapping of patterns of visual representation in government digital public health communication as an empirical overview.

2 Literature Review

2.1 Visual Communication and Visual Representation

In visual communication meaning is made and understood through visible forms such as photographs, illustrations, graphic elements, symbols, and combinations of images and text. In digital contexts, visual components accomplish more than support only written content. They have a part in determining which facets of a problem become apparent, recognizable, and consistently brought to audiences' attention. Thus, visual representation can be defined as the visual forms used in communication content to represent people, things, activities, and ideas.

The visual representation can be viewed in the context of social semiotics as developed by Kress and van Leeuwen [9], which provides a useful conceptual basis. Their visual grammar model considers images as socially constructed means of making meaning. Images convey meaning through depiction, constructed relationships and visual arrangement. From this perspective, the selection of visual subjects is meaningful because it determines which aspects of an issue are visually foregrounded.

The growing prevalence of image-based content on digital platforms has made visual representation more significant in the study of social media. The observable subjects appearing in visual content can be systematically classified to identify recurring patterns of representation. This method is especially applicable to quantitative content analysis when visual features are re-coded into analytical categories and compared across a data set. Systematic coding of social media content is now a common practice in health-related research to identify message characteristics, media formats, and recurring content patterns [10].

However, the present study does not apply the complete visual grammar framework as a semiotic analytical method. It does not analyze gaze, camera angle, social distance, modality or compositional salience. Instead, the concept of visual representation is used as a descriptive conceptual lens for identifying recurring visual subjects in government social media content. This distinction is important, because the study is not focused on a detailed semiotic analysis of individual images, but rather in the distribution of visible visual categories.

2.2 Visual Communication in Public Health

Visual communication is especially important in public health where health messages often involve complex scientific, nutritional and behavioural concepts which need to be communicated to diverse audiences with varying levels of educational and health literacy. Public health information may concern recommended behaviors, dietary practices, health risks, or preventive actions that can be difficult to explain through textual information alone. The World Health Organization [5] recommends the use of photographs, illustrations, infographics, charts and videos to improve the comprehensibility and accessibility of health information.

Dual Coding Theory provides a conceptual explanation for the relevance of combining visual and verbal information. Paivio [11] proposed that human cognition consists of the interrelated verbal and nonverbal representational systems. Information presented through words and visual forms may therefore be processed through separate but related representational pathways. This perspective provides a theoretical basis for the use of images and other visual aids in health communication along with health facts.

Empirical evidence supports the relevance of visual information in health communication. Schubbe et al. [2], through a systematic review and meta-analysis, found that adding pictures to health information improved knowledge, understanding, and recall. The study also identified important benefits of pictorial information for audiences with lower health literacy. Visual formats, particularly video-based interventions, can improve health literacy and comprehension of health-related information, according to a 2024 comprehensive review and meta-analysis by Galmarini et al. [7].

The importance of visual communication in digital public health contexts is growing. Social media users encounter health information as photos, videos, illustrations, icons and graphical formats that compete for attention in visually-oriented digital feeds. Visuals can help to concretize abstract health issues by portraying people, activities, objects or practices related to health. However, the presence of a visual does not necessarily ensure effective communication. Visual content should be rather analysed as an empirical dimension of the presentation of health information.

Infographics are one of the visual forms in health communication to have garnered increasing scholarly attention. Traboco et al. [8] describe infographics as visual representations designed to communicate complex educational and scientific information through organized combinations of graphical and textual elements. They are particularly useful in health communication because infographics can communicate a large amount of information in a small, visual format. But the authors point out that the design of infographics should be driven by the communication goals, the target audience and the clarity of the message being delivered.

Earlier research has shown that visual elements can aid in the processing and understanding of health information. [2,7]. However, these studies are mainly concerned with the effects or functions of the visual information. Government-generated public health communication tends to focus less on the descriptive question of which visual subjects repeatedly appear in it. Understanding how a public health issue is visually presented in digital communication begins with mapping recurring visual forms.

2.3 Social Media and Government Public Health Communication

Social media has become an established environment for health communication. In their systematic review, Chen and Wang [3] identified ten categories of social media use for health by health institutions, health professionals, researchers and the public. These uses include health education, information, health promotion, social support, communication between health organizations and audiences. According to their research, social media has become an important platform for the production, sharing, and retrieval of health-related content.

Additionally, social media's features give particular chances for public health initiatives. De Vere Hunt and Linos [12] contend that social media enables public health organisations to tailor messages, engage target populations, address misinformation, facilitate peer-to-peer information sharing, and assess campaign communication. Their framework highlights the need for public health communication on social media to consider the features of digital platforms and audiences. So, social media should not be considered as just another vehicle for delivering traditional health messages.

Public health agencies increasingly incorporate social media into institutional communication. A scoping review by Balogun et al. [13] of public health agencies' social media use during pandemics found message content, message style, audience characteristics, and platform-related factors to be key components of institutional digital communication. The review shows that public health institutions are active in developing and organizing communication content for social media environments.

Research methodology has also developed alongside the increasing availability of health-related social media content. A scoping review by Fu et al. [10] highlighted the widespread application of content analysis in healthcare social media analysis to categorise topics, message features, and media-related attributes. By systematically coding observable characteristics of content, researchers are able to identify recurring patterns in large sets of social media posts. This methodological approach is relevant for examining visual characteristics in government-generated health content.

Social media has also been used in Indonesia to spread knowledge on preventing stunting. Khatimah and Laksmi [14] looked at Instagram as a way to spread information about stunting intervention and showed how important the platform is to the spread of health information regarding stunting. Their study indicates that social media has become part of the information environment surrounding stunting prevention in Indonesia.

Previous studies on social media and public health have largely focused on health information sharing, public involvement, campaign development and communication outcomes [3,12]. Studies of public health agencies similarly tend to focus on communication practices and message characteristics [13]. Research on Instagram and stunting in Indonesia has shown how important social media is for spreading information [14]. However, the recurring visual subjects used to represent stunting prevention in government social media content are less explicitly documented.

2.4 Visual Representation of Stunting Prevention Communication

The prevention of stunting is a multi-sectoral health issue, such as maternal nutrition, breastfeeding, complementary feeding, growth monitoring of children, dietary practices and healthy living behaviors. Government communication concerning stunting therefore encompasses information that can potentially be represented through diverse visual subjects. Human beings, including individuals, families, and children, may be shown; foods and nutritional components may represent dietary habits; graphical data may organize health knowledge; and symbolic components may graphically communicate more general public health messages.

Preventive information closely associated with everyday practices makes the importance of visual representation particularly relevant to stunting effective communication. Food, people and health-related activities in social media data allow these topics to be directly seen in the data through visuals. Alternative ways to continuously

present health information include infographics and symbolic representations. Existing evidence concerning pictures and visual-based health interventions supports the relevance of examining visual information in health contexts [2,7], while infographic research demonstrates the increasing use of structured visual formats for communicating scientific and health information [8].

Table 1. Summary of Previous Studies on Visual and Social Media-Based Health Communication

Author(s) and Year	Research Context	Method	Main cus/Findings	Relevance and Gap for the Present Study
Khatimah and smi (2019)	Stunting infor- mation on Insta- gram in Indonesia	Content dissemination analysis	Instagram serves as a stunting commu- nication medium for dissemin- ation but does not spe- nating stunting inter- vention information	Establishes the rele- vance of Instagram for communication but does not spe- cifically map recurring visual representations in government social media content
Schubbe et al. (2020)	Pictorial health information	Systematic review and meta-analysis	Pictures can improve knowledge, under- standing, and recall of health information	Demonstrates the rele- vance of visuals in health communication but focuses on audience outcomes rather than visual content patterns
Chen and Wang (2021)	Social media use for health purpos- es	Systematic review	Social media is wide- ly used for health edu- cation, information dissemination, and health promotion, and health communication	Establishes social me- dia as a health commu- nication environment but does not specific- ally examine visual rep- resentations of stunting
de Vere Hunt and Linol (2022)	Social media- based public health campaigns	Conceptual framework and literature syn- thesis	Social media offers opportunities for tailored messaging, public engagement, information sharing, and campaign evalua- tion	Focuses on public health campaign prac- tices rather than de- scriptive mapping of visual subjects
Traboco et al. (2022)	Infographics in education and scientific commu- nication	Conceptual and practical re- view	Infographics organize complex scientific and health information into accessible visual formats	Supports the im- portance of infograph- ic-based communica- tion but focuses on one specific visual format

Author(s) and Year	Research Context	Method	Main cus/Findings	Relevance and Gap for the Present Study
Balogun et al. (2023)	Public health agencies' social media communication	Scoping review	Message content, message style, audiences, and platform factors are important in institutional public health communication	Examines institutional communication practices but provides limited attention to recurring visual subjects
Fu et al. (2023)	Analysis of health-related social media content	Scoping review	Content analysis is widely used to classify topics, message characteristics, and media attributes in health social media research	Provides methodological support for systematic coding of observable social media content
Galmarini et al. (2024)	Visual-based health literacy interventions	Systematic review and meta-analysis	Visual-based interventions can support health literacy and comprehension of health information	Demonstrates the value of visual communication but emphasizes intervention outcomes rather than visual representation patterns
Present Study	Stunting prevention in Indonesian government social media	Quantitative content analysis	Maps human-centered, nutrition and food, infographic, and symbolic visual representations	Provides a descriptive mapping of recurring visual representations in government-generated stunting prevention communication

Taken together, previous studies have established the value of visual information in supporting health communication and have demonstrated the growing role of social media in disseminating public health messages. In previous research, most of the work has concentrated on the influence of visual information on understanding and health literacy, on specific visual formats such as infographics, or on social media in the dissemination of health information and communication of health campaigns. Research on stunting in Indonesia has emphasized social media as a tool for education and information sharing, but very little empirical attention has been paid to the repeated visual themes employed in government-produced social media material to symbolize stunting prevention. Addressing the gap, the novelty of the present study lies in its descriptive mapping of four observable visual representation categories, namely human-centered, nutrition and food, infographic, and symbolic visuals, across government social media content on stunting prevention. This study provides empirical evidence of the visual patterns through which a national public health priority is made visible in Indonesia's digital public communication environment, rather than assessing communication effectiveness or audience outcomes.

3 Methodology

3.1 Research Framework & Design

The basic concept of this research is the idea of visual representation, which views visual components as visible shapes that convey social realities in digital environments. Quantitative content analysis of different visual forms can systematically identify and classify government social media content on stunting prevention. We analysed four categories of visual representation identified in the coding framework: (1) human-centered visuals, (2) nutrition and food visuals, (3) infographic visuals, and (4) symbolic visuals. The categories have no purpose to assess the efficiency of government social media communication or the audience's reactions, but rather to find recurrent visual patterns.

This study used a quantitative descriptive research design with content analysis method. Content analysis is an unobtrusive research method that researchers use to systematically classify the content of communications into predefined categories. Thus, content analysis helps to generate valid and replicable descriptions of communication phenomena [15]. Rather than examining audience reaction and effectiveness of communication, content analysis allows the researcher to observe characteristics of communication material.

The unit of analysis was an individual social media post on stunting prevention that was published by three Indonesian government-related social media accounts: @ayosehat_kemenkes, @kemenkes_ri, and @tp2stunting. The study analyzed 151 posts published between 2023 and 2025.

3.2 Data Collection

Data were collected from the official Instagram and TikTok accounts of the three selected government institutions. The selected accounts actively disseminate information related to stunting prevention and public health communication purposes in Indonesia.

The data was collected by scraping social media posts, using a Python based scraping process. The data was publicly available and was produced between 2023 and 2025. The dataset extracted contained post images/videos, captions, publication dates and other post metadata of interest. After extraction, the data set was cleaned by removing duplicate records, irrelevant symbols and non-essential characters and then organized into a structured coding database.

A total of 151 social media posts met the inclusion criteria for the analysis. Posts needed to be explicit in communicating issues related to stunting prevention, namely nutrition, maternal and child health, complementary feeding, healthy behaviors, and government stunting programs.

3.3 Coding Procedure

Prior to data analysis, a coding tool was created based on recognizable visual elements included in every social media post. Several-category coding was used because a single post could have several graphic elements. There are four types of visual representation:

- Human-centered visuals, referring to photographs or illustrations depicting individuals, families, children, health workers, or community members.
- Nutrition and food visuals, referring to foods, beverages, nutritional ingredients, complementary feeding (MPASI), and dietary practices.
- Infographic visuals, referring to graphical presentations containing structured health information, diagrams, icons, charts, or educational illustrations.
- Symbolic visuals, referring to logos, campaign identities, graphic symbols, institutional icons, or other symbolic representations associated with public health communication.

Each post was examined and coded for the presence or absence of these visual categories. Multiple coding was considered appropriate to capture the visual complexity of government social media content as a single post may readily include photos, food images and infographic elements.

3.4 Data Analysis

The coded data were analyzed using descriptive statistical analysis. The distribution of each visual representation category across the dataset and across the three government social media accounts was determined by calculating frequencies and percentages.

The analysis emphasizes the occurrence and distribution of visual categories rather than evaluating communication effectiveness or audience responses. The findings are presented in a descriptive manner to provide an empirical overview of how stunting prevention communication is visually represented on Indonesian government social media.

The analytical process followed the general steps of quantitative content analysis proposed by Krippendorff [15] that include data preparation, coding, classification, descriptive statistical analysis and interpretation of patterns in visual representation.

4 Results & Discussion

4.1 Data Set Overview

This study analyzed social media content published by three Indonesian government-related accounts actively involved in communicating stunting prevention: **Ayo Sehat**

(@ayosehat_kemenkes), Kementerian Kesehatan Republik Indonesia (@kemenkes_ri), and TP2 Stunting (@tp2stunting). These accounts were chosen because they represent various institutional roles within Indonesia's public health communication system and consistently share information about preventing stunting. Though all three accounts share the same national health priority, they serve different institutional functions, which may shape the visual presentation of health information.

The dataset consisted of **151 publicly available social media posts** published between **2023 and 2025** on **Instagram** and **TikTok**, two visually-oriented platforms commonly utilised by Indonesian government institutions for public health communication. Each social media post was used as the basis for analysis. In order to give a thorough summary of government-generated digital communications on stunting prevention, posts included textual and visual components, such as captions and graphics.

To capture the complexity of visual communication, this study employed a **multiple-category coding approach**, allowing a single post to be assigned to more than one visual category. Government social media content often features a mix of photographs, illustrations, food images, infographics, icons, and other symbolic elements in one post. As a result, rather than representing mutually exclusive categories, the cumulative frequency of visual categories provided in the following sections surpasses the total number of posts evaluated, illustrating the multimodal character of digital communication.

The analysis focused exclusively on the **visual representation**, looking at the visual subjects visible in government social media output. The coding framework yielded four analytical categories: **human-centered visuals**, **nutrition and food visuals**, **infographic visuals**, and **symbolic visuals**. These categories were used to descriptively map how stunting prevention is visually represented across government social media platforms, rather than evaluating communication effectiveness or audience responses.

4.2 Pattern of Visual Representation

The content analysis identified 293 coded visual representations across 151 government social media posts, reflecting the application of a multiple-category coding approach in which a single post could contain more than one visual element. The overall distribution of visual categories is presented in Table 2.

Table 2. Overall Distribution of Visual Representation Categories (n = 151 posts)

Visual Representation Category	Frequency (n)	% of Posts*	Interpretation
Human-centered visuals	118	78.1	Dominant visual representation depicting children, parents, healthcare workers, and communi-

Visual Representation Category	Frequency (n)	% of Posts*	Interpretation
Infographic visuals	79	52.3	ty interactions. Frequently used to communicate structured health information and educational messages.
Nutrition and food visuals	60	39.7	Represents dietary practices, complementary feeding (MPASI), nutritious foods, and healthy eating behaviors.
Symbolic visuals	36	23.8	Includes institutional logos, campaign identities, official icons, and government symbols.

Note. Percentages are based on the total number of posts analyzed ($n = 151$). Because multiple-category coding was used, one post could contain more than one visual category. Thus, cumulative percentages add up to more than 100%.

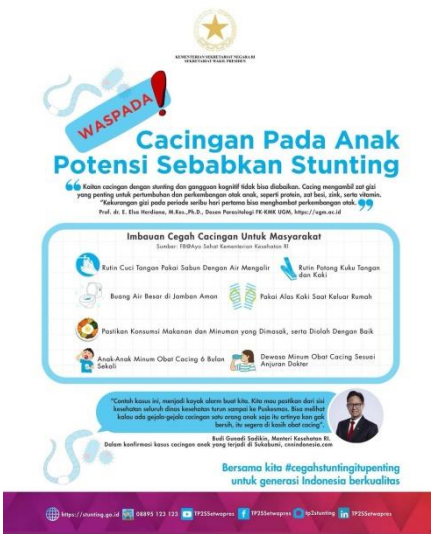
According to Table 2, human-centered visuals were the most prevalent visual representation, occurring in 118 coded instances (78.1%). The study's results show that the Indonesian government mainly conveys messages about preventing stunting by using visual images, such as individuals including kids, mothers, healthcare workers, and community members, rather than relying only on written descriptions or official graphics. Health information can be presented through images of people in everyday situations and familiar social interactions. That makes preventive health messages more concrete and relatable. According to current research, pictorial information may improve health message comprehension and retention, particularly for audiences with different health literacy levels [2]. Similarly, Galmarini et al. [7] demonstrated that visual-based health interventions contribute to improved understanding of health information. The current study does not evaluate audience outcomes, yet the prevalence of human-centred visuals implies that government institutions frequently use people-focused imagery as a key method of public health communication.

1. Human Centered



Pict 1. A clip from Kadin and Kompas Gramedia Collaboration for Gerakan Beres (Bersama Entaskan Stunting) from Kementerian Kesehatan Republik Indonesia Instagram account

2. Infographic



Pict 2. Infographic Visual about potential stunting for children with worm infection from TP2 Stunting Instagram Account

3. Nutrition and Food



Pict 3. Complementary feeding (MPASI) recipe form Ayo Sehat Instagram Account

4. Symbolic Visual



Pict 4. A clip from Gerakan Anak Sehat Campaign Activities video from Kementerian Kesehatan Republik Indonesia Instagram Account

The second most frequently identified category was infographic visuals, which appeared in 79 coded instances (52.3%). This finding indicates that infographic elements constitute an important visual resource for communicating health-related information in government social media. Infographics are a way to communicate nutrition recommendations, preventive advice and public health information in a short, visually structured format. Rather than trying to have the audience to interpret long written explanations, infographics break down the information into simplified visual elements that may increase the readability and access to information. According to Traboco et al. [8], infographics are becoming more and more useful for delivering scientific and health-related information since they convert difficult ideas into visually organized representations. This study demonstrates that visual

organisation is now core to how governments communicate health information, as evidenced by the high proportion of infographic visuals observed.

The third most prominent visual category was nutrition and food visuals with 60 coded instances (39.7%). These images are mostly food, nutritional ingredients, complementary feeding (MPASI), fruits, vegetables and other food-related objects related to child nutrition. Their existence is a reflection of the substantive focus of stunting prevention itself, where nutrition practices are a large part of preventive health communication. Instead of simply disseminating written dietary advice, government social media often illustrates nutritional practices through concrete visual exemplars. Such visual representations support the presentation of preventive behaviors by translating nutritional concepts into observable daily practices. Previous research has indicated that visual communication plays a critical role in improving access to health related information, particularly in communicating practical advice to large audiences [5,7].

Among the four visual categories, symbolic visuals appeared least frequently, with 36 coded instances (23.8%). Institutional logos, campaign identities, official icons and other graphic elements that represent government initiatives are symbolic visuals. Symbolic images occur less frequently than infographic or human-centered images but still play an important role in reinforcing institutional identity and distinguishing official public health communication from other digital sources. Previous studies have emphasized the importance of institutional communication on government social media, stating that visual identity is one of the elements that contribute to the credibility and recognizability of public communication [13]. The relatively limited use of symbolic visuals in the present study implies that government institutions prefer to convey practical health information through people and educational visuals rather than focusing on organisational branding.

The combined findings indicate a distinct visual focus in Indonesian government communication aimed at preventing stunting. A high percentage of human-centered and infographic visuals shows that, while nutrition and food visuals offer graphical representations of advised health practices, government organizations mainly convey preventive health information through human depictions and visually organized educational content. Symbolic visuals, although less frequently observed, complement these representations by reinforcing institutional identity within the broader digital communication environment. These overall patterns serve as a basis for understanding how various government institutions create visual representations of stunting prevention messages before analysing the unique visual features of each government social media account in the following section.

4.3 Institutional Differences in Visual Representation

Table 3. Distribution of Visual Representation Categories across Government Social Media Accounts

Visual Representation	Ayo Sehat	Kemenkes RI	TP2 Stunting
Human-centered visuals	40 (33.90%)	35 (29.66%)	43 (36.44%)
Nutrition and food visuals	49 (81.67%)	9 (15.00%)	2 (3.33%)
Infographic visuals	45 (56.96%)	14 (17.72%)	20 (25.32%)
Symbolic visuals	13 (36.11%)	11 (30.56%)	12 (33.33%)

Percentages represent the proportion of each visual category contributed by each government account under the multiple-category coding approach.

Although the four categories of visual representation appeared across all three government social media accounts, their distribution demonstrates clear institutional differences. Rather than presenting identical visual communication patterns, each account emphasized particular visual forms that reflected its institutional role in communicating stunting prevention. As presented in **Table 3**, **Ayo Sehat** contributed the highest proportion of **nutrition and food visuals (81.67%)** and **infographic visuals (56.96%)**, while **TP2 Stunting** recorded the highest proportion of **human-centered visuals (36.44%)**. Symbolic visuals were relatively balanced across the three accounts, ranging from **30.56%** to **36.11%**, suggesting a shared use of institutional visual identifiers across government communication.

Among the three accounts, **Ayo Sehat** demonstrated the strongest emphasis on **nutrition-oriented visual communication**. Food-related imagery appeared in **49 coded instances**, representing **81.67%** of all nutrition and food visuals identified in the dataset, while infographic visuals accounted for **45 coded instances (56.96%)**. This pattern shows that Ayo Sehat primarily distributes stunting prevention by means of practical illustrations of nutrition practices, dietary suggestions and visual educational materials. The frequent usage of graphical elements and food pictures points to a focus on providing nutritional advice in an aesthetically appealing educational format. These findings are consistent with previous studies that have shown the role of visual aids in simplifying health information and providing practical recommendations in more accessible formats for diverse audiences [2,8].

In contrast, **Kementerian Kesehatan Republik Indonesia** displayed a more balanced visual profile, although **human-centered visuals** remained the dominant category (**35 coded instances; 29.66%**). Nutrition-related visuals (**15.00%**) and infographic visuals (**17.72%**) appeared less frequently than in Ayo Sehat, while symbolic visuals represented **30.56%** of the coded visual elements. The ministry often showcases health communication through photographs of health professionals, public activities, institutional events, and community interactions, indicating a focus on human-centered imagery. This visual orientation is in keeping with the ministry's overall goal of disseminating public health programs and institutional activities, rather than concentrating on instructional nutrition content. Previous research has emphasized that government social media frequently combines public information with institutional visibility to strengthen communication credibility and public trust [13].

A different pattern emerged in **TP2 Stunting**, where **human-centered visuals** constituted the largest category (**43 coded instances; 36.44%**), followed by **symbolic visuals (33.33%)** and **infographic visuals (25.32%)**, while **nutrition and food visuals** appeared only **twice (3.33%)**. This distribution suggests that rather than using food-related educational images, TP2 Stunting largely uses visual representations of individuals, government programs, institutional activities, and campaign identities to promote stunting prevention. The relatively higher proportion of symbolic visuals also reflects the account's institutional role in communicating national stunting acceleration initiatives and intergovernmental coordination. Therefore, the account is not so much a provider of practical nutritional education, but rather a platform for communicating government programs and public policy implementation.

Taken together, these findings demonstrate that the three government accounts perform complementary visual communication roles despite addressing the same public health issue. **Ayo Sehat** predominantly visualizes preventive health practices through nutrition-related educational content, **Kementerian Kesehatan Republik Indonesia** emphasizes people-centered institutional communication, while **TP2 Stunting** presents stunting prevention within the context of government programs and institutional initiatives. The visual representation on the government social media is determined by the health issue that is being communicated and the different communication roles of each government institution due to institutional differences. This institutional diversity provides the basis for identifying broader visual representation patterns discussed in the following section.

4.4 Visual Representation Patterns in Government Social Media Communication

The results presented in previous sections demonstrate that visual representation on government social media is not produced at random but rather reflects recurrent patterns pertaining to the communication functions of different governmental organizations. Although all three accounts communicate the same public health issue—stunting prevention—they employ distinct visual emphases that collectively shape how the issue is represented in Indonesia's digital public communication environment. These visuals show larger institutional trends in the presentation of preventative health information rather than serving as discrete communication products.

The first recurring pattern is **nutrition-centered visualization**, which is predominantly represented by **Ayo Sehat**. This pattern is marked by the repeated use of food related imagery. In addition, infographic elements with recommendations on nutrition, complementary feeding (MPASI), balanced diet and healthy eating practices are used. Visually, this integration renders nutritional information as tangible, recognizable daily behaviors rather than abstract ideas of health. Previous studies have emphasized that visual communication can improve the accessibility of health information by presenting practical recommendations through easily interpretable visual formats [2,8]. In the context of this study, nutrition-centered visualization illustrates how pre-

ventive health information is visually anchored in everyday behaviors that are directly relevant to child nutrition.

The second pattern is **human-centered public health visualization**, most evident in the communication of **Kementerian Kesehatan Republik Indonesia**. In the case of human-centered visuals for public health communication, the main visual subjects are children, parents, health care professionals, and community members. The images communicate health messages through social interactions and public health activities that are visible, rather than through institutional graphics or text information. Visual representations have been suggested as a way to improve the delivery of health information, as they can render messages more concrete, socially relevant and easier to understand [2,7]. The predominance of human-centered imagery indicates that people themselves become the principal visual medium through which government institutions communicate preventive health messages.

The third pattern is **program-oriented visualization**, which is particularly reflected in the communication produced by **TP2 Stunting**. The motif draws on human-centric imagery along with symbolic visual elements like campaign identities, institutional logos, official events and government program activities. Compared with the other accounts, TP2 Stunting places less emphasis on nutrition-related imagery and greater emphasis on representing institutional initiatives and cross-sector collaboration. Visual communication is not only a vehicle of dissemination of health information, but also a symbol of the government's commitment and collaboration in the fight against stunting prevention. Previous research has noted that government social media often mixes informational communication with promotional elements to increase the exposure and legitimacy of public communication [13].

These three patterns collectively demonstrate that visual representation in government social media is **institutionally differentiated**. Although the accounts communicate a common public health objective, each develops a distinctive visual identity that reflects its respective communication function. **Ayo Sehat** primarily visualizes preventive nutrition education, **Kementerian Kesehatan Republik Indonesia** emphasizes people-centered public health communication, and **TP2 Stunting** highlights government programs and institutional coordination. The variations in visual representation imply that it is influenced by government organizations' organizational functions and communication duties in addition to the health concern being conveyed.

The findings extend previous research on digital public health communication in two important ways. First, previous research has mainly focused on the effectiveness of visual information, health literacy, or social media campaigns. This study offers an **empirical mapping of visual representation patterns** embedded in government-generated social media content. Second, rather than treating government social media as a homogeneous communication channel, the findings demonstrate that different government institutions construct distinct visual identities despite communicating the same public health issue. The institutional perspective offers a more nuanced under-

standing of government digital communication by showing how organizational roles are represented through visual representation. The research indicates that visual representation in government social media is institutionally distinct, with various government organisations conveying the same public health issue through unique visual identities that mirror their individual public communication roles.

5 Conclusion

This study examined how stunting prevention is visually represented in Indonesian government social media by analyzing content published by three government-related accounts: Ayo Sehat, Kementerian Kesehatan Republik Indonesia, and TP2 Stunting. Using quantitative content analysis, the study descriptively mapped four categories of visual representation—human-centered visuals, nutrition and food visuals, infographic visuals, and symbolic visuals—to identify recurring visual patterns in government digital public communication.

The findings reveal that government social media communication on stunting prevention is primarily characterized by **human-centered** and **infographic** visual representations. Human-centric visuals of children, parents, health professionals and community interactions are the dominant mode of representation. These are mainly communicated by government institutions as preventive health information. Infographic visuals complement these representations by organizing health information into visually structured educational formats, while nutrition and food visuals translate preventive recommendations into concrete everyday practices. Symbolic visuals reinforce institutional identity and government campaign visibility, but have been less frequent than institutional identity and government campaign visibility.

The study further demonstrates that visual representation is **institutionally differentiated**. Although the three government accounts communicate the same national public health issue, each develops a distinctive visual identity that reflects its organizational communication function. Ayo Sehat primarily emphasizes nutrition-centered educational visuals, Kementerian Kesehatan Republik Indonesia adopts a people-centered public health orientation, and TP2 Stunting focuses on program-oriented visual communication. The research contributes to existing literature by offering an empirical analysis of visual representation patterns in Indonesian government social media and demonstrating that institutional communication roles are represented through unique visual identities rather than a standardised visual approach.

This study is limited to the analysis of visual content published by government social media accounts and does not examine audience interpretation, message effectiveness, or behavioral outcomes. Future research could improve this study by integrating visual representation and audience interaction, message presentation, communication goals or behavioural reactions to provide a more comprehensive understanding of government digital health communication. Such studies would complement the de-

scriptive evidence presented here and further the knowledge on digital public health communication.

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