

WHO's Global Nutrition Campaign on Instagram: Visual Communication Strategy and Strengthening Digital Nutrition Literacy

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ABSTRACT

This study investigates how the World Health Organization (WHO) uses visual communication strategies on Instagram to promote global dietary risk reduction and enhance digital nutritional literacy within the community. Using a descriptive qualitative method, the study analyzes 13 infographics posted by @who from August 2025 to May 2026, selected through purposive sampling. The data analysis combines the qualitative framework of Miles, Huberman, and Saldaña with multimodal discourse analysis based on Kress and van Leeuwen's Visual Grammar. Results indicate that WHO effectively employs flexible and causal visual grammar to clarify complex macronutrient issues, such as using engaging imperative sentences to promote reduced sugar and salt intake. Additionally, the study reveals a transition in WHO's Instagram role from serving as a digital info board to functioning as a policy advocacy platform, encouraging health taxes at the national level. This research highlights that successful health promotion depends on visual adaptations that reduce psychological resistance from digital audiences while fostering their ability to critically evaluate nutritional information online.

1. INTRODUCTION

Public health communication now faces a new challenge. Instead of relying on traditional flyers in community health centres or hospitals, the focus has shifted to social media platforms like Instagram. This change is significant because the biggest health threats today are not just infectious diseases but also Non-Communicable Diseases (NCDs) such as diabetes, obesity, and heart disease (WHO, 2022). These chronic conditions are often linked to daily lifestyle habits, especially high consumption of sugar and salt (WHO, 2015, 2023). On visual platforms like Instagram, global health organizations such as the WHO need to present prevention messages through multimodal infographics that combine text with appealing images to effectively influence the global community's behaviour.

Research on how social media is used for health communication has attracted the attention of many researchers. For example, Batolu & Bustam (2022) demonstrated that combining visual and verbal modes (multimodality) in posts on WHO's official Instagram account effectively conveyed interrelated health information to the public. Similarly, Baldapan et al. (2022) discussed multimodal discourse analysis applied at a regional scale, such as in infographics from the Resbakuna vaccination campaign in the Philippines, to examine how visual and textual elements collaborated to convey crisis messages.

Existing research on health communication on social media mainly focuses on crisis or pandemic contexts (Luo et al., 2025). Baiquni et al. (2025), in their book "The Digital

Revolution in Health Promotion", highlight that the digital age requires more innovative promotional strategies to foster long-term changes in healthy lifestyles. Sadly, media studies often neglect important topics like nutrition and limits on sugar and salt consumption. Influencing people's daily dietary choices requires far more complex messaging than simply encouraging adherence to health protocols during emergencies.

Food is closely linked to the private sphere, taste habits, and ingrained taste preferences. Furthermore, Instagram culture itself is saturated with discourse on consumerist food aesthetics, such as the current trend of high-sugar coffee milk and high-sodium culinary content (Feldman & Goodman, 2020). The challenges of this digital environment, rife with the promotion of unhealthy lifestyles, emphasize the urgency of strengthening digital nutritional literacy among social media users. Digital nutritional literacy is not simply the ability to access health information, but rather the public's critical ability to sort, validate, and apply science-based nutritional information amidst the onslaught of commercial culinary trends (Nabilah, 2025). When the WHO entered Instagram with a campaign about restricting dietary intake, they were actually engaging in a counter-discourse and educational intervention to build digital nutritional literacy and counter mainstream social media habits (Chen et al., 2021).

To address this research gap, this study aims to investigate the communicative function of dietary risk mitigation infographics posted by the WHO on its official Instagram account using a multimodal discourse analysis approach. The data for this study were drawn from the most recent posts from August 2025 to May 2026, which focused on campaigns to reduce sugar and salt intake and on advocacy for health tax policies. By examining how verbal text and visual elements work together, this research is expected to provide a practical overview of how a global health authority transforms rigid scientific data into persuasive, down-to-earth, and influential visual messages in the digital space (Jatmika, 2019; Kite et al., 2023).

2. RESEARCH METHOD

This study adopts a descriptive qualitative methodology, utilizing Multimodal Discourse Analysis. The choice of a descriptive qualitative approach stems from the aim to explore how meaning and function are constructed through signs in the WHO infographic, rather than testing hypotheses or producing statistical data. Multimodal analysis serves as the analytical framework because the focus is on infographics communication artifacts that integrate two semiotic systems: verbal text (language) and visual elements (images, colours, layouts) (Kress & Van Leeuwen, 2006).

The data in this study were obtained directly from the official Instagram account of the World Health Organization (@who). The data collection technique used was purposive sampling, namely the selection of samples based on specific criteria or objectives that align with the research focus. The data criteria used in this study are (1) uploads in the form of single infographics or carousels published from August 2025 to May 2026 and (2) the content specifically campaigns for global dietary or nutritional risk mitigation, particularly by limiting the consumption of sugar, salt (sodium), and artificial sweeteners, and by advocating for health tax policies (health taxes) on sweet food and beverage products.

Based on these criteria, 13 infographic uploads were found to meet the requirements for use as the primary data corpus for the study. This number was deemed representative

for in-depth qualitative analysis because all collected data had reached saturation point (data saturation), where the emerging verbal and visual message patterns begin to show characteristic similarities.

The data analysis procedure was adapted from Miles, Huberman, and Saldaña's (2014) qualitative analysis model and tailored to the needs of multimodal discourse analysis. The steps were (1) Data Reduction: Researchers sorted 13 infographics that had been collected, then focused the analysis on the risk reduction campaign cluster for hazardous food substances (sugar, salt, and advocacy for health taxes on sweet products). (2) Data Display: Each selected infographic was entered into an analysis matrix (work table). Within the table, the researcher separated verbal text elements (word choice, sentence structure) and visual elements (colour choice, illustration type, image emphasis). The verbal text was then analyzed for its linguistic function based on the concept using Systemic Functional Linguistics (Halliday & Matthiessen, 2014), while the visual elements were analyzed using the principles of Visual Grammar (Kress & Van Leeuwen, 2006). (3) Conclusion Drawing: Researchers connected the findings from verbal and visual texts to determine which communicative functions (whether informative, directive/command, or critical persuasive) were predominantly used by WHO to influence the dietary awareness of the global audience on Instagram.

3. RESULTS

Before conducting an in-depth thematic discussion, the researchers reduced and mapped the 13 infographics comprising the primary data corpus. Based on the initial multimodal analysis, the following table summarizes the verbal and visual characteristics of the data:

Table 3.1. Summary of WHO Instagram Infographic Data Corpus (August 2025–May 2026)

No. Data	Campaign Cluster	Key Message Focus	Dominant Verbal Elements (Text)	Dominant Visual Elements (Images/Colours)
1	Salt Reduction	Safe limits for sodium consumption	Educational, dosage information	Illustration of measuring spoon, yellow background
2	Salt Reduction	An invitation to reduce table salt	Imperative ("Shake the Salt Off")	Moving salt bottle, minimalist icon
3	Sugar Restriction	The dangers of sugar in children	Informative, persuasive, subtle	Kids/snack icons, pastel colours
4	Salt Reduction	The impact of salt on hypertension	Medical-popular, educational	Organ/heart graphics, contrasting colours

5	Salt Reduction	Hidden salt in processed foods	Warning: commodity list	Instant food packaging, motion lines
6	Sugar Restriction	Daily sugar consumption limit	Quantitative guide (grams)	Sugar cube illustration, calm background
7	Artificial sweeteners	Artificial sweetener (NSS) myths	Critical declarative, rebuttal	Unbranded soda can, large typography
8	Sugar Restriction	Alternative substitute for sweet snacks	Directives, healthy menu suggestions	Illustration of fresh fruit, bright colours
9	Artificial sweeteners	Long-term impact of NSS	Academic-popular, research facts	Scale/weight icon, dim colour
10	Tax Advocacy	Effectiveness of health tax	Firm: "Health Taxes Works"	Price/policy symbols, urgency colour
11	Tax Advocacy	Criticism of the affordability of sweet products	Critical, reprimanding the slowness of the state	Country status graphic, grey/dark background
12	Salt Reduction	Tips for reading sodium labels	Tactical, educational guide	Illustration of product back packaging label
13	Sugar Restriction	Global call to reduce the sweet industry	Advocacy, macro invitation	Global/world symbol, contrasting colours

Referring to the mapping in Table 3.1, the researcher categorized the discussion into three primary clusters for detailed examination via Visual Grammar theory and Language text. Analyzing 13 WHO Instagram infographics reveals that the global health organization has shifted away from a strict communication style and intimidating audiences with complex medical terminology. Instead, WHO now employs an engaging, informal, and visually rich approach. The following is a breakdown of the analysis results, grouped into three main campaign clusters:

3.1. Salt Reduction Campaign Cluster: Visual Metaphor Analysis of the “SHAKE THE SALT OFF” Slogan

In this first cluster, the analysis focuses on how the WHO packages the dangers of excessive sodium (salt) consumption to raise global public awareness. The primary data in this cluster is represented by an infographic that carries the key slogan “SHAKE THE SALT OFF”.



Figure 1 (Data 2)



Figure 2 (Data 5)

Based on those two figures above, here are the visual elements and verbal elements depicted.

A. Visual Element Analysis (Visual Grammar)

The campaign's infographics employ a clever visual technique to attract the attention of quick-scrolling Instagram users.

- **Contrasting Colour Options:** The infographic background intentionally employs bold colours like bright yellow or solid blue. This deliberate colour selection creates visual salience, making it the first element that captures the audience's attention in the centre of the timeline (feed) on a solid Instagram.
- **Interactive Image Metaphor:** The primary visual feature is an illustration of a container or bottle of table salt being moved or shaken (shaking). This illustration uses a modern, minimalist graphic style instead of photo realism, aiming to make the message more approachable to young audiences and avoid the appearance of a dull medical flyer.
- **Motion Lines:** The small lines around the salt shaker create the visual effect of shaking the bottle to release its contents. Semiotically, this image communicates a physical action directly to the reader. This can be seen in pictures 1 and 2: "Shake the Salt Off" Campaign Infographic on the @who Instagram Account (Source: Instagram/who, 2025).

B. Verbal Element Analysis (Language Text)

When the verbal text is paired with the image of the salt bottle, the language function that emerges is highly persuasive:

- **Use of Subtle Command Sentences (Imperative):** The slogan "SHAKE THE SALT OFF" directly means "shake and throw away the salt." In linguistic terms, this is an imperative sentence (imperative clause). However, since the phrase resembles the common English idiom "shake it off" (which implies forgetting or dismissing a problem), the sense of the command transforms into a relaxed, casual invitation.

- **Counter Discourse Meaning Construction:** The WHO uses this slogan to reshape how people perceive salt. Traditionally associated with “delicious food,” salt is now being presented as something to “reduce or eliminate” from our plates to lower the risk of high blood pressure and stroke.

Now, Cluster II: Sugar and Artificial Sweetener Restriction Campaign will be described. In this cluster, we will examine how WHO communicates the hidden dangers of artificial sweeteners (non-sugar sweeteners or NSS) and excess sugar. The communication style here has shifted slightly toward a more educational, critical approach, because many netizens believe that switching to artificial sweeteners is a healthy solution, even though, according to WHO, this is a myth.

3. 2. Sugar and Artificial Sweetener Restriction Campaign Cluster: Debunking the Myth of “Healthy Alternatives”

The second cluster's analysis concentrated on infographics about sugar intake and artificial sweetener usage. This topic involves a different degree of linguistic complexity, as WHO needs to address global misconceptions about dietary products circulating on social media.

A. Visual Element Analysis (Visual Grammar)

From a visual perspective, WHO uses an approach to representing everyday objects that is very familiar in urban lifestyles:

- **Typography that Highlights Contrast:** Main words like “SUGAR” or “SWEETENERS” are usually printed in large, bold fonts at the top (preferably in the ideal position). This instantly draws attention and signals to the audience that the content is about sweetness.
- **Iconic Visualization (Iconography):** The illustrations are simple yet impactful, featuring icons like a spoon spilling sugar, a piece of fresh fruit, or a generic soda can. The generic soda can icon, which lacks any brand specifics, acts as a universal symbol for “high sugar/sweetened beverage.”
- **Soft Reminder Colour Palette:** Unlike the salt campaign's contrasting primary colours, this sugar cluster uses soothing yet contrasting background colours like soft brick red, deep purple, or turquoise. These hues project a serious but approachable tone, fostering a neutral, educational environment. Refer to images 3 and 4 below.

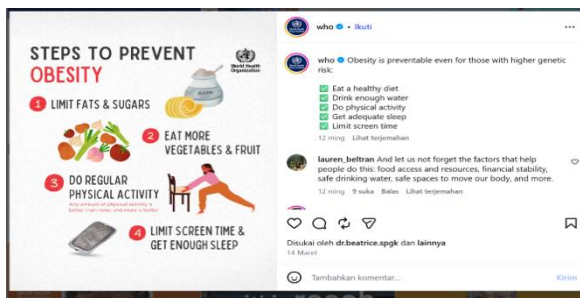


Figure 3 (Data 6)



Figure 4 (Data 13)

B. Verbal Element Analysis (Language Text)

The language function developed by WHO in this cluster emphasizes functional-logical ideas to dispel common myths about everyday consumption.

- **Data-Based Refutation (Critical Declarative):** The sentences are often factual statements in educational content, like clarifying that artificial sweeteners don't aid long-term weight management. WHO employs clear language to counteract the food industry's advertising, which frequently markets “sugar-free” products as healthy.
- **Down-to-Earth Technical Vocabulary Selection:** Despite conveying complex science-based recommendations, this verbal text on Instagram is simplified using popular equivalents. Scientific terms are transformed into easily digestible action phrases, such as replacing chemical recommendations with direct calls to action like “choose fresh fruit over sugary snacks”.

In this second cluster, it becomes clear that WHO's primary role regarding multimodal communication on Instagram is acting as an information coordinator. While the fitness industry is flooded with trends and influencers often promoting diet drinks and artificial sweeteners, WHO counters this with clear infographics and well-reasoned arguments to refocus audiences on natural nutrition, such as fresh fruit.

3.3. Advocacy Cluster for the Implementation of Health Tax on Sweet Food and Beverage Products: Macro Policy Communication Strategy

In contrast to the two previous clusters, which focused on changes in individual behaviour in society, this third cluster shows the function of WHO Instagram as a tool for political and social pressure (social-political advocacy). The main data in this cluster are strongly represented by Figures 5 and 6.



Figure 5 (Data10)



Figure 6 (Data11)

Based on the above figures, here are the visual element analysis and verbal element analysis.

A. Visual Element Analysis (Visual Grammar)

Visually, WHO changes the tonality of its design to be much more serious, formal, and based on structural data representation:

- **Graphical and Icon-Based Data Presentation for Policy:** In Figure 6, instead of displaying images of food, WHO presents data visualizations or graphs that indicate the status of countries around the world. The use of these graphic elements has a psychological effect of authority (scientific authority)—showing that the message conveyed has a very strong research basis.
- **Urgency - Inducing Colour Choices:** The background colour palette used in this cluster tends to use contrasting colours that convey a sense of warning or high urgency (such as brick red, dark grey, or navy blue). These colours help differentiate regular content (health tips) from policy advocacy content that demands serious attention from policymakers.
- **Visual Comparison of Products and Taxes:** In Figure 5, visual focus highlights the contrast between a symbol representing a cheap, dangerous product and one depicting tax regulations. This establishes a visual story suggesting that the affordability of unhealthy products is a significant problem requiring government intervention.

B. Verbal Element Analysis (Language Text)

From a linguistic (textual) perspective, the dominant language function in this cluster is the interpersonal communication function, which is urgent and critical in tone:

- **Use of Declarative Sentences with an Assertive Tone:** The main slogan in Figure 5, “INCREASING HEALTH TAXES WORKS,” is structured with absolute, confident declarative sentences. There's no hesitation or weakness in the wording; its purpose is to convince the audience and the government that tax instruments are a valid solution.
- **Discourse on Socio-Political Criticism:** The statement in Figure 6, indicating that most countries have not experienced a decline in sugary drink affordability since 2022, exemplifies critical discourse. It shows WHO not just as a health authority but as a global monitor criticizing governments for their sluggish actions in safeguarding their populations from unhealthy food businesses.

Overall, this multimodal analysis demonstrates that the WHO has successfully optimized Instagram beyond its traditional role as a digital health information bulletin board. Through a strategic blend of verbal text (ranging from a casual invitation in a salt campaign to a stern rebuke in a tax campaign) and adaptive visuals (Figures 1 through 6), the WHO has proven capable of distilling complex global nutrition issues into crisp, persuasive content that also carries political leverage in the digital public sphere.

DISCUSSION

This study reveals a paradigm shift in health communication by organizations like the WHO in the digital age. Unlike the past, when health messages were mostly formal, linear, and reliant on dense medical texts (Kress & Van Leeuwen, 2006), WHO's utilization of Instagram highlights the growing importance of visuals in bridging the gap between medical professionals and the public. By employing casual yet confident multimodal discourse—as seen in campaigns like “Shake the Salt Off” and artificial sweetener education—they effectively reduce the overwhelming amount of information often encountered on social media.

Furthermore, the analysis of the health tax advocacy cluster (Figures 5 and 6) shows that WHO's Instagram communication has evolved into a digital advocacy tool that functions

as a socio-political pressure mechanism. WHO not only targets individuals to improve their diets independently but also uses the digital public sphere to delegitimize the slow pace of government regulation in various countries regarding the unhealthy food industry. This aligns with critical discourse theory, which holds that digital media is no longer simply a neutral information channel but a battleground for ideology and public policy.

Compared to earlier studies on health campaigns on social media, WHO's multimodal approach stands out for its higher message acceptability. By reducing fear-inducing visuals and substituting them with appealing, everyday visual metaphors, WHO effectively bypasses the psychological resistance of digital audiences. This research highlights that the success of future global nutrition campaigns will depend less on the precision of clinical data presentation and more on how flexibly the data is integrated into a visual language that aligns with current social media consumption habits.

4. CONCLUSION

Based on the results of the analysis and discussion carried out on 13 global nutrition campaign infographics on the official WHO Instagram account (@who) for the period August 2025 - May 2026, this study concludes two main points:

1. **Adaptive Multimodal Strategy:** WHO has successfully integrated verbal (text) and visual elements to simplify the complex issue of macronutrients. Through the use of imperative-casual sentences in the salt reduction campaign ("Shake the Salt Off"), a declarative-critical approach to artificial sweeteners, and straightforward data visualization on health taxes, WHO is able to create educational content that has minimal psychological resistance and is very friendly to the social media consumption culture of global netizens.
2. **Mutation of Instagram's Function as an Advocacy Tool:** WHO's use of Instagram has gone beyond its traditional role as a digital health information platform. Through its health tax campaign cluster, WHO has strategically used digital public space as a digital advocacy tool to criticize the slowness of government regulations in various countries while countering the commercial narrative of the unhealthy food industry.

For further research, this study is limited to textual and visual analysis from the perspective of the message producer (WHO). Further research is recommended to examine this aspect of audience reception, such as analyzing the sentiment of netizens' comment sections or measuring the extent to which this Instagram infographic can change people's dietary and shopping behaviour at the grassroots level.

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Authors' Contribution

Yeyep Natrio conceptualized the study, developed the main theoretical framework regarding nutritional digital literacy, and wrote the original draft of the manuscript. Wilda Laila performed the multimodal discourse analysis and visual grammar tracking on the Instagram datasets. Yensasnidar collaborated in collecting the social media data, managed the data visualization, and proofread the final manuscript.

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