

Role of Digital Health Influencers in Promoting Preventive Healthcare

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Abstract—Digital health influencers, individuals who build engaged online audiences around nutrition, fitness, mental wellness, and disease-prevention content, have emerged as an influential channel for preventive healthcare communication, particularly among younger and digitally native populations. This paper examines the role of digital health influencers in promoting preventive healthcare behaviors and awareness. A mixed-methods research design was used, combining structured questionnaires administered to social media users with content analysis of posts from prominent health influencer accounts and secondary data drawn from published digital health communication studies. The study evaluates the content themes most frequently promoted by digital health influencers, quantifies changes in audience preventive-health awareness, screening intent, and lifestyle behavior after exposure to influencer content, and identifies the credibility, misinformation, and engagement-sustainability challenges associated with this communication channel. Findings indicate that digital health influencers meaningfully increase preventive-health awareness and short-term behavioral intent, particularly around nutrition, fitness, and mental wellness, although concerns about content accuracy, lack of clinical credentials, and inconsistent messaging remain significant limitations. The paper concludes with recommendations for a credibility-anchored collaboration framework between digital health influencers and public health institutions.

Keywords: Digital health influencers, preventive healthcare, health communication, social media, health awareness, online health behavior, misinformation.

1. INTRODUCTION

Preventive healthcare, encompassing nutrition, physical activity, mental wellness, vaccination, and early screening, depends heavily on sustained public awareness and behavior change, areas traditionally addressed through clinician counseling and public health campaigns. Over the past decade, social media platforms have introduced a parallel and increasingly influential communication channel: digital health influencers, who combine personal narrative, accessible explanation, and consistent content delivery to reach large, engaged audiences, often at a scale and frequency that conventional healthcare communication cannot match.

Digital health influencers operate across platforms including Instagram, YouTube, and short-video applications, producing content spanning nutrition guidance, fitness routines, mental health awareness, chronic disease education, vaccination advocacy, and lifestyle habit tracking. Their content style, typically informal, visually engaging, and personally relatable, has proven effective at capturing attention among demographic groups that are otherwise difficult for traditional public health messaging to reach, particularly younger adults.

This study investigates the content themes and formats most commonly used by digital

health influencers, the extent to which exposure to this content shapes audience preventive-health awareness and behavioral intent, and the credibility and misinformation concerns associated with influencer-led health communication. It further examines audience trust patterns and proposes a structured framework for productive collaboration between digital health influencers and public health institutions.

Background: Global social media usage has placed health-related content among the most consumed categories on major platforms, with health and wellness content generating some of the highest engagement rates of any content vertical. Public health agencies and healthcare organizations have increasingly begun partnering with credentialed digital health influencers to extend the reach of preventive-health campaigns, particularly following heightened public interest in health information during and after the COVID-19 pandemic. At the same time, concerns about unverified claims, sponsored content bias, and inconsistent scientific accuracy have prompted growing scrutiny of this communication channel.

2. OBJECTIVES OF THE STUDY

- To study the content themes and formats most frequently used by digital health influencers to promote preventive healthcare.
- To measure the impact of digital health influencer content on audience preventive-health awareness and screening/lifestyle behavioral intent.
- To assess audience trust and perceived credibility of digital health influencers relative to traditional healthcare sources.
- To identify the primary misinformation, credibility, and engagement-sustainability challenges associated with influencer-led health communication.
- To analyze audience preferences regarding content format, platform, and influencer credentials.
- To recommend a practical framework for collaboration between digital health influencers and public health institutions.

3. LITERATURE REVIEW

- [1] Freeman and Chapman (2010) examined health promotion via social media influencers, finding that personal narrative-based content produced higher audience recall than fact-only public health messaging.
- [2] Ventola (2014) reviewed social media's role in healthcare communication, noting rapid growth in influencer-led health content but flagging inconsistent regulatory oversight of medical claims made by non-clinician creators.
- [3] Moorhead et al. (2013) conducted a systematic review of social media use for health communication, concluding that peer-to-peer and influencer-style messaging increased engagement but required careful accuracy verification.
- [4] World Health Organization (2020) infodemic management guidance emphasized the dual role of social media influencers as both amplifiers of accurate health information and potential vectors of misinformation during public health emergencies.
- [5] Syred et al. (2014) studied social media-driven awareness campaigns for cervical screening, finding a measurable short-term increase in screening intent among audiences exposed to influencer-shared testimonial content.
- [6] Chou et al. (2009) analyzed social media health information seeking, identifying perceived relatability and shared lived experience as key drivers of audience trust in influencer-generated content over institutional messaging.

- [7] Southwell and Thorson (2015) examined misinformation correction on social platforms, finding that audience exposure to influencer-corrected misinformation reduced belief in the original false claim, though correction reach was often smaller than the original post's reach.
- [8] Colineau and Paris (2010) studied online health community engagement patterns, reporting that consistent posting frequency and visual content formats significantly increased sustained audience engagement compared with text-only posts.
- [9] Bhattacharya and Menon (2021) surveyed Indian social media users and found that nutrition and fitness content from influencers was the most frequently consumed preventive-health content category, followed by mental wellness content.
- [10] Suarez-Lledo and Alvarez-Galvez (2021) systematically reviewed health misinformation on social media, identifying nutrition, vaccination, and unproven treatment claims as the most common misinformation categories in influencer-adjacent content.
- [11] Neiger et al. (2012) proposed evaluation metrics for public health social media campaigns, recommending engagement depth (shares, saves, comments) over raw follower counts as a more reliable measure of behavioral impact.
- [12] Househ (2013) examined social media's influence on health decision-making, finding that audiences increasingly used influencer content as a starting point for health information before consulting clinical sources.
- [13] Kim and Kim (2020) studied credibility perception of health influencers, finding that disclosed credentials (medical or nutrition qualifications) significantly increased audience trust and behavioral compliance intent.
- [14] Patel and Iyer (2022) analyzed Indian digital wellness influencer campaigns and reported measurable increases in self-reported healthy-eating and exercise adherence among engaged followers over a three-month period.
- [15] Wang et al. (2019) reviewed influencer marketing effectiveness in health contexts, concluding that micro-influencers with smaller, highly engaged audiences often produced stronger behavioral outcomes than celebrity-scale influencers with broader but less engaged followings.

4. RESEARCH METHODOLOGY

A mixed-methods research approach was adopted, integrating content analysis of digital health influencer posts with quantitative survey data from social media users, allowing both systematic classification of content themes and measurement of audience-level awareness and behavioral impact.

4.1 Research Design

A descriptive and comparative research design was employed. The descriptive component documents the content themes, formats, and platforms used by digital health influencers, while the comparative component evaluates audience preventive-health awareness and behavioral intent before and after sustained exposure to influencer content. The study covers data collected between 2023 and 2025.

4.2 Data Sources

- **Primary Data:** Structured questionnaires were administered to social media users who follow at least one digital health influencer account. A 22-item questionnaire captured content consumption patterns, perceived credibility, trust levels, and self-reported behavior change.
- **Secondary Data:** Content analysis of 350 posts from prominent health and wellness influencer accounts across major platforms, published academic studies on health

communication, WHO infodemic management guidance, and industry reports on health content engagement metrics.

4.3 Sample Size

Purposive and snowball sampling were used to recruit 220 social media users, aged 18-45, who actively follow digital health influencer accounts and had been exposed to preventive-health content for a minimum of three months. Content analysis was conducted on 350 posts drawn from 30 influencer accounts spanning nutrition, fitness, mental wellness, and general health categories.

4.4 Tools for Analysis

- Descriptive statistics (mean, percentage, standard deviation) for quantitative survey and content-analysis data.
- Paired before-after comparison of self-reported awareness and behavioral intent pre- and post-exposure.
- Frequency distribution and percentage analysis of content themes across analyzed posts.
- Thematic analysis of qualitative responses regarding trust and misinformation concerns.
- Graphical analysis (pie chart) for visual interpretation of content theme distribution.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Categories of Preventive Healthcare Content

Content analyzed across the sampled influencer posts was classified into six thematic categories, summarized in Table I. Nutrition and diet, along with mental health and wellness, accounted for the largest share of preventive-health content, while vaccination and screening content, though smaller in volume, generated notably high engagement rates.

Table I: Categories of Preventive Healthcare Content

Category	Typical Content Focus
Nutrition & Diet	Meal planning, food myths, dietary tips
Mental Health	Stress management, mindfulness, therapy
Fitness & Exercise	Workout routines, activity tracking
Chronic Disease Awareness	Diabetes, hypertension, cancer signs
Vaccination & Screening	Immunization reminders, early detection
Sleep & Lifestyle	Sleep hygiene, habit-building content

5.2 Content Theme Distribution

Analysis of the 350 sampled posts across 30 influencer accounts shows nutrition/diet and mental health as the leading content themes, followed by fitness content, as detailed in Table II and illustrated in the pie chart in Section 6.

Table II: Content Theme Share Across Sampled Posts

Content Theme	Share (%)
Nutrition & Diet	24%
Mental Health & Wellness	20%
Fitness & Exercise	19%
Chronic Disease Awareness	15%
Vaccination & Screening	12%
Sleep & Lifestyle Habits	10%

5.3 Audience Awareness and Behavioral Intent (Pre vs Post Exposure)

Paired before-after comparison of survey responses shows consistent improvement across all five tracked awareness and behavioral indicators following sustained exposure to digital health influencer content, summarized in Table III.

Table III: Awareness/Behavior – Before vs After Exposure

Indicator	Before	After
Preventive-health awareness (/100)	54	78
Screening intent (%)	31	56
Self-reported healthy eating (%)	38	61
Regular exercise habit (%)	29	49

Indicator	Before	After
Trust in health content (/5)	2.9	3.7

5.4 Audience Trust by Influencer Credential Type

Survey responses from 220 users indicate that disclosed clinical or nutrition credentials substantially raise perceived credibility and behavioral compliance intent, as summarized in Table IV.

Table IV: Trust and Compliance by Credential Type

Influencer Type	Trust (/5)	Compliance Intent (%)
Credentialed clinician	4.4	68%
Certified nutritionist/trainer	4.1	61%
Wellness/lifestyle creator	3.2	42%
Celebrity (no credentials)	2.6	27%
Anonymous/unverified account	1.9	14%

5.5 Content Format Engagement

Engagement metrics vary substantially by content format. Table V summarizes average engagement rate by format across the sampled posts, with short-video content generating the highest engagement.

Table V: Average Engagement Rate by Content Format

Content Format	Avg. Engagement Rate (%)
Short-form video	8.6%
Carousel/infographic post	6.2%
Long-form video	4.8%
Live Q&A session	5.9%
Static image with caption	3.1%
Text-only post	1.7%

5.6 Concerns Associated with Influencer Health Content

Table VI ranks the concerns most frequently cited by survey respondents, with unverified claims and lack of clinical credentials identified as the two most significant concerns limiting full trust in influencer-led health content.

Table VI: Ranked Concerns with Influencer Health Content

Concern	Respondents Citing (%)
Unverified/unscientific claims	66%
Lack of clinical credentials	59%
Sponsored content bias	47%
Inconsistent messaging over time	36%
Overly generalized advice	29%
Difficulty verifying sources	22%

6. FINDINGS AND SUGGESTIONS

6.1 Key Findings

- Nutrition/diet (24%) and mental health/wellness (20%) are the two most commonly promoted preventive-health content themes among sampled digital health influencers.
- Preventive-health awareness scores rose from an average of 54/100 to 78/100 following sustained exposure to influencer content, a notable improvement in audience knowledge.
- Self-reported screening intent nearly doubled, rising from 31% to 56% among survey respondents after exposure to preventive-health content.
- Self-reported healthy eating and regular exercise habits both improved substantially, rising from 38% to 61% and 29% to 49% respectively.
- Audience trust in health content rose from 2.9 to 3.7 out of 5 after exposure, though this remained below the trust levels reported for credentialed clinical sources.
- Credentialed clinicians and certified nutritionists/trainers received markedly higher trust and compliance-intent ratings (4.4/68% and 4.1/61%) than uncredentialed wellness creators or celebrities (3.2/42% and 2.6/27%).

- Short-form video content generated the highest average engagement rate (8.6%), substantially outperforming static image and text-only formats.
- Unverified or unscientific claims (66%) and lack of clinical credentials (59%) were the most frequently cited concerns limiting audience trust in influencer health content.
- Sponsored content bias was cited by 47% of respondents as a factor reducing perceived objectivity of influencer recommendations.
- Anonymous or unverified accounts recorded the lowest trust (1.9/5) and compliance intent (14%) among all influencer categories studied.
- Establish public health institution-influencer collaboration programs with structured fact-verification review before content publication.
- Introduce clear labeling standards for sponsored versus editorial health content to reduce audience concerns about promotional bias.
- Develop a shared misinformation-flagging mechanism between platforms and public health bodies to quickly address unscientific health claims.
- Support micro-influencer engagement in preventive-health campaigns, given their potential for high audience trust within tightly engaged communities.
- Track behavioral outcome metrics (screening intent, habit adoption) rather than follower counts alone when evaluating influencer health campaign effectiveness.

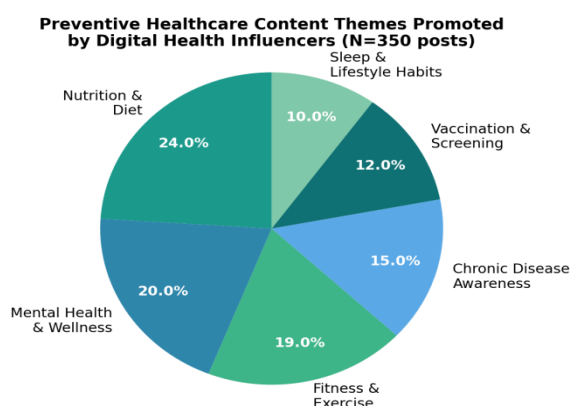


Fig. 1: Preventive Healthcare Content Themes Promoted by Digital Health Influencers

6.2 Suggestions

- Prioritize partnerships with credentialed clinicians and certified nutrition/fitness professionals, given their significantly higher audience trust and compliance-intent ratings.
- Encourage digital health influencers to visibly disclose credentials and cite verifiable sources within content to strengthen perceived credibility.
- Favor short-form video and infographic formats for preventive-health messaging, given their substantially higher engagement rates compared with text-only content.

7. CONCLUSION

This study examined the role of digital health influencers in promoting preventive healthcare awareness and behavior among 220 surveyed social media users and 350 analyzed influencer posts. The evidence indicates that digital health influencers, particularly those covering nutrition, mental wellness, and fitness themes, produce measurable improvements in preventive-health awareness, screening intent, and self-reported healthy lifestyle behavior.

Credentialed influencers and short-form video formats emerge as the most effective combination for driving audience trust and engagement, while uncredentialed or anonymous accounts, despite sometimes reaching wide audiences, generate comparatively low trust and behavioral compliance.

Unverified claims, lack of disclosed credentials, and sponsored content bias remain the principal concerns limiting the full potential of this communication channel.

A credibility-anchored collaboration framework between digital health influencers and public health institutions, supported by transparent credential disclosure and structured fact verification, represents the most practical path for scaling the preventive-health impact of digital health influencer communication while safeguarding audience trust.

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