

---

## Take me Down to the Vaccine City? Nano – and Micro Influencers Engagement in the Pro-Vaccination Campaign During the COVID-19 Pandemic: Evidence from Poland

---

Submitted 01/07/21, 1st revision 22/08/21, 2nd revision 14/09/21, accepted 10/10/21

Joanna Macalik<sup>1</sup>

**Abstract:**

**Purpose:** The purpose of the presented paper is to initially analyze and assess the role of nano- and micro-influencers engagement in the pro-vaccination campaign during the COVID-19 pandemic.

**Design/Methodology/Approach:** This paper's insights have emerged iteratively by considering both theory and empirical research. In the research part, the author uses the qualitative content analysis method.

**Findings:** The research showed that Polish nano and micro-influencers join the effort to get Poles vaccinated. More and more unsponsored micro-influencer campaigns are popping up on social media, with a growing number of people follow them and engage with them. The content presented both by influencers, and their followers has some specific features. The COVID-related content presented by so-called "responsible influencers" is clear and understandable, inclusive, forceful, decisive, direct, and honest, evidence-based, but also humorous and emotional at the same time.

**Practical Implications:** There is an urgent need to investigate the influencers' role and effectiveness in critical social campaigns. The results of the research can be used in cooperation with influencers when planning social movements.

**Originality/Value:** According to the author's best knowledge, the paper is the first one that uses the qualitative content analysis method to investigate and assess influencers' engagement in social campaigns.

**Keywords:** COVID-19, vaccines, social media, influencer, social responsibility, Poland, content analysis.

**JEL Classification:** M30, M38.

**Paper Type:** Research paper.

**Funding:** The project is financed by the Ministry of Science and Higher Education in Poland under the programme "Regional Initiative of Excellence" 2019 - 2022 project number 015/RID/2018/19 total funding amount 10 721 040,00 PLN.

---

<sup>1</sup>Ph.D., Department of Marketing Management, Wrocław University of Economics and Business, [joanna.macalik@ue.wroc.pl](mailto:joanna.macalik@ue.wroc.pl);

---

## 1. Introduction

People worldwide spent nearly 1.5 years with the global pandemic, accompanying fears and restrictions and hoping for a better future. The pandemic is a concern not only for every people, but also for governments, markets, businesses, and - for scientists, not only in the field of medicine. As the pandemic unfolds, we can see the growing interest of marketing scientists in various topics affected by COVID-19. This dangerous disease has changed how many companies operate, forcing them to change how they contact customers, promote, or sell. Due to the pandemic, many companies, both global concerns and small family organizations had to change their strategies for the future and operate in conditions of unprecedented uncertainty.

This uncertainty can be reduced by mass vaccinations and achieving herd immunity. Therefore, governments worldwide are introducing various social campaigns, which role is to encourage their citizens to vaccinate against COVID-19. It is not an easy task - the vaccine is new, people are afraid of potential side effects, and they doubt the effectiveness of the protection. For this reason, in many countries, after the initial high interest in vaccinations (when the enthusiasts vaccinated), there are no new candidates for being vaccinated.

According to the principle of "all hands-on board," in many cases, not only official state units and the health service are involved in the vaccination campaign, but also many individuals - including celebrities and - more and more often – social media influencers of various types.

The purpose of the presented paper is to analyze and assess the role of nano and micro-influencers engagement in the pro-vaccination campaign during the COVID-19 pandemic. The report was based on research conducted in Polish social media. The structure of the paper is as follows. A literature review and theoretical assumptions on social media influencers and their social engagement are presented in the first part, emphasizing the COVID-19 era. In the second part, the author presents the Poland-specific background of the pro-vaccination campaign. In the third part, the methods are presented, and in the fourth - the results of own research. The paper ends with a conclusion and discussion.

## 2. Literature Review

Influencer marketing is a relatively new phenomenon in marketing, and it has been of interest to both practitioners and scientists in this field for only a few years (Vrontis *et al.*, 2021). Naturally, it relates to the rapid adoption of social media, which completely changed the relationship between consumers and brands. Nowadays, social media enables customers to discuss, comment, and recommend those brands. It was just a matter of time that some consumers attracted a mass audience, gained many followers, and became a source of advice for them as social media influencers (SMIs). Following this process, brands realized the benefits of collaborating with social media

influencers. They started to stimulate them to promote their product and services in the frame of so-called influencer marketing.

However, influencer marketing is still a new way of attracting customers. The idea of using opinion leaders in marketing is not new, and it is based on classic rules of persuasion. According to Cialdini, who explored factors that affect people's decisions, particularly sales and purchasing, one of the rules of social influence is authority, which claims that people follow the lead of credible experts (Cialdini, 2020). The origins of the research on the role of opinion leaders are related to the sphere of political marketing just after II World War when it was discovered that mass media affect voters not directly but through opinion leaders, especially when it comes to the more passive segments of the population (Katz and Lazarsfeld, 1955).

Those opinion leaders were mainly various celebrities for a long time e.g., movie stars, professional athletes. Still, with the rise of social media, anyone who skillfully gathers followers can become an influencer. Recently, more than half of internet users claim to rely on the recommendations of influencers during their purchase decisions, and this number is increasing every year (Digital Marketing Institute, 2021). Simultaneously, marketing managers are more and more willing to incorporate influence marketing into their strategy, as its ROI is comparable or better than other channels (BigCommerce, 2021).

It should be noted that the above considerations apply to influencers in the context of brand endorsement. Meanwhile, in the practice of their activities, we can notice an increasing trend of social engagement that is not directly related to the operation of brands and sometimes even go against them. According to the author's best knowledge so far, the role of social media influencers (SMI) in social campaigns was not comprehensively analyzed.

As influencer marketing becomes more and more popular, the followers become more and more suspicious – they want to know if the influencer is a credible and honest source of information and works ethically. Various studies considering operations of social media influencers analyze how it can be assessed whether the influencer is or is not trustworthy. So-called "credibility" and "trustworthiness" are some of the main characteristics attributed to SMIs (Vrontis *et al.*, 2021). According to the most recent research, the level of credibility and trustworthiness of SMI may be influenced, among other factors, by sponsorship disclosure (De Veirman and Hudders, 2020) or conflict of interest (Sah *et al.*, 2018). These are extremely important for SMI's engagement in critical social issues, which can be especially clearly observed since the outbreak of the COVID-19 pandemic.

As the pandemic influenced people's lives in so many dimensions, some of the influencers decided to limit their commitment to promoting brands, and they focused on encouraging people to comply with pandemic restrictions (in the first stage of a pandemic) and to vaccinate against COVID-19 (in the second stage of a pandemic).

---

Analyzing this kind of commitment, currently, one may observe the rise of a new type of influencer – responsible social media influencer, which either moves away from cooperation with brands and focuses on social issues or – among their other activities - strengthen their previous engagement in serious social problems.

### **3. Poland-Specific Background of the Pro-Vaccination Campaign**

To fully understand the role of Polish social media influencers in promoting vaccines against COVID-19, it is essential to present Poland-specific background, as it helps to assess the reasons and scope of influencers' operations. As of June 2021, the global society is still fighting a worldwide pandemic of COVID-19 disease. However, in less than a year, humanity can be proud; we have several authorized, highly effective vaccines. The rapid development of the COVID-19 vaccines is an extraordinary achievement of science, which will enable the return to normality in a relatively short time. When the author writes these words, more than 3.1 billion doses have been administered worldwide - enough to fully vaccinate 20.2% of the global population (Bloomberg, 2021). However, despite production and distribution being strongly skewed in favor of high-income countries (Scarpetta *et al.*, 2021), some EU countries still struggle to vaccinate their priority populations. One of them is Poland.

As limited supplies are slowing vaccination campaigns in many countries, this is not the case in Poland, where delay in immunizing population reflects Poland-specific social background. It was already confirmed that social attitudes and context fundamentally impact the COVID-19 vaccine acceptance (Jarynowski and Skawina, 2021). Since the beginning of the COVID-19 pandemic, many studies have already been conducted to analyze why some Poles do not intend to vaccinate. The most recent of them, carried out in May 2021 by CBOS claim, is that more than 30% of Poles do not intend to vaccinate (CBOS, 2021). What is even more surprising – is the other research, more than 46% of vaccination skeptics declare that the reason for such a decision is that they do not believe that the vaccine is safe (BIOSTAT, 2021).

This kind of skepticism causes significant delay in the National Anti-Covid Immunisation Programme announced on 08.12.2020, which involves a widespread, voluntary, and free vaccination in Poland in 2021 (Health Ministry, 2020). In a publication providing information about the program, the Polish Health Ministry declared that its "strategic aim is to achieve a level of vaccination of society making it possible to control the COVID-19 pandemic by the end of 2021, while also maintaining the highest safety standards" (Waligóra, 2021). In mid-2021, it became clear that it may be years before the Polish populations could be fully immunized without prompt action.

As the accelerating vaccination rate is essential to recovery from the pandemic, and the level of willingness to get vaccinated has been shallow among Poles, the Polish government tries to change the mindset of the part of the population known as "vaccine hesitancy." The term refers to delay in acceptance or refusal of vaccines

despite vaccination services and was established long before the COVID-19 disease (European Center for Disease Prevention and Control, 2016). Several reasons may cause vaccine hesitancy in the case of COVID-19 disease. According to already cited BIOSTAT research, Poles are afraid of side effects (52,5%), do not believe the vaccine is effective (46,1%), consider the vaccine will not protect against further variants of the coronavirus (45%), or - in the extreme case of believers in conspiracy theories – they do not believe in the pandemic at all (16,4%).

To change the mind of skeptics and guarantee the appropriate level of vaccination and herd immunity, Chancellery of the Prime Minister launched a social campaign with two leading slogans: "Ostatnia prosta!" ("The final stretch!") and "#SzczepimySię" ("Let's vaccinate!"). Fifty ambassadors take part in it: this group includes mainly athletes - footballers from the national football team, Polish volleyball representatives, as well as Robert Kubica - Formula 1 driver, Olympic swimmer Otylia Jędrzejczak, climber, skier, and alpine runner Andrzej Bargiel, and two famous locally actors - Cezary Pazura and Maciej Musiał.

**Figure 1.** The billboard from the #SzczepimySię ("Let's vaccinate!")/ "Ostatnia prosta!" ("The final stretch") campaign with national football team players, including famous Robert Lewandowski.



*Source: Marketing przy kawie, 2021.*

The activities were planned in the traditional media: television, radio, and press, as well as in the form of an OOH ("out of home") campaign: billboards and posters on the streets. The campaign is also conducted on the Internet - in social media and on VOD channels. Over 7,000 various carriers were used, together with local promotional campaigns in cooperation with local governments and health care institutions (PROTO.PL, 2021). The state-owned Totalizator Sportowy also launched a national lottery with money and material prizes for those fully vaccinated and encouraged undecided to get a job (Health Ministry, 2020). However, the scope of the turnout campaign is quite impressive (Table 1.); the media and public health experts claim that it will not accelerate the vaccination rate. The main reason is that it does not address the main barriers indicated by undecided citizens as reasons for refusing vaccination, do not present reliable data and arguments for immunization, or refute

rumors and fake news spread by so-called "anti-vaxxers," which is a severe social problem (Apuke and Omar, 2021; Orso *et al.*, 2020; van der Linden *et al.*, 2020).

**Table 1.** The scope of "The final stretch!" campaign.

	Number of publications	Estimated reach
<b>Press</b>	32	789 744
<b>Tv</b>	77	17 339 176
<b>Radio</b>	272	9 528 760
<b>Internet</b>	4 393	2 649 260

*Source:* Institute of Media Monitoring, 2021.

Due to the mentioned deficiencies in the official government campaign, Polish influencers took on the burden of informing, explaining, and debunking fake news about COVID-19 vaccines.

#### 4. Research Methodology

In the following paper, the author uses the content analysis method. Over the last two decades, primarily because of the rapid growth of the Internet, not only researchers but also practitioners have seen an explosion of text data generated by companies, media, and consumers in the form of text messages, reviews, tweets, e-mails, posts, blogs and other. With the increase in the number of available text messages, which created the "big data" term, scientists' interest in various types of content analysis has also increased.

Content analysis is one of the research methods used mainly in sociology, communication sciences, and related social sciences. It involves determining and describing the linguistic features of texts to explain their authors' non-linguistic properties, such as attitudes, assessments, or intentions. Despite the sociological connections, content analysis is a universal and highly flexible research method with varying possible research goals and objectives (White and Marsh, 2006: 22)

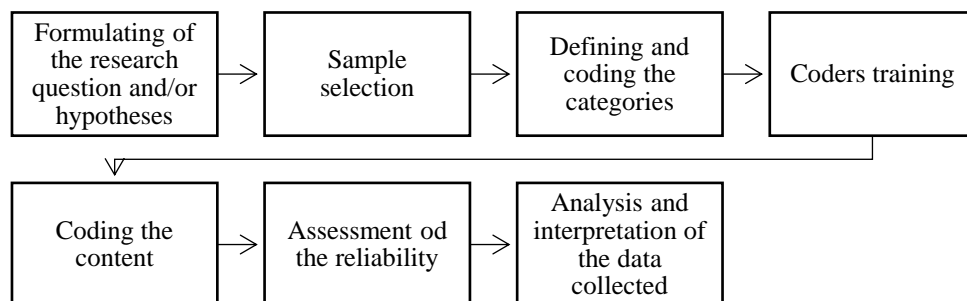
An analysis of the leading science database SCOPUS showed a growing interest in the content analysis method, especially in social media research. Using the query < "social media" AND "content analysis"> and additionally limiting the results to those published between 2016 and 2021 and in the discipline "Business, Management and Accounting," 1,097 scientific papers were found. These papers were to varying degrees related to marketing topics, especially consumer research, social media, and user-generated content (UGC).

The growing interest of scientists is accompanied by resolving definitional and methodological issues, among which the most important seem to be the scope of using modern technologies, difficulties in obtaining a representative sample from the Internet, and a problem with defining the unit of analysis (Howard, 2002; McMillan, 2000; Weare and Lin, 2000).

According to the – known as "classic" - definition by Berelson, the content analysis is "a research technique for the objective, systematic, and quantitative description of the manifest content of communication" (Berelson, 1952). It is also known as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2004). Naturally, several alternative definitions have been offered since, but they all agree that the analysis should be objective and systematic and that each step must consistently follow explicitly formulated rules and procedures (Holsti, 1969; Lewis, Zamith, and Hermida, 2013; Tischer *et al.*, 2000).

There are two basic types of content analysis - quantitative and qualitative. They differ primarily in the research procedure and inferences based on the obtained results. Using qualitative content analysis, a researcher uses inductive reasoning formulates research questions instead of hypotheses, answers them, reads through the data, and scrutinizes it to identify concepts and patterns. As White & Marsh note, "conclusions from the content analysis can be drawn about the communicator, the message or text, the situation surrounding its creation - including the sociocultural background of the communication - and/or the effect of the message" (White and Marsh, 2006). Meanwhile, the quantitative content analysis represents the deductive approach and enables the identification of the meaning of the messages through valid measurement rules and making relational inferences with statistical methods (Riffe *et al.*, 2005) Usually (McMillan, 2000; Riffe *et al.*, 2005), the quantitative content analyses conform to the complex procedure, presented graphically in Figure 2:

**Figure 2.** *The standard procedure of the content analysis.*



**Source:** *Own elaboration based on McMillan, 2000; Riffe et al., 2005.*

Figure 2 presents the "classic" qualitative content analysis procedure. It seems that nowadays, researchers are forced to expand it. The literature review led the author to conclude that there are three main approaches to content analysis existing: presented above traditional approach, the computational system, which is based on allowing computers to detect and display patterns that humans cannot, and by providing new ways of organizing data through aggregation, comparison, and correlation, using quantitative methods and statistics (Humphreys and Wang, 2018) and combined

---

approach - which is based on blending computational and manual modes (Sjøvaag and Stavelin, 2012) and uses both qualitative and quantitative methods.

In the presented research, the author uses a combined approach. The study aims to investigate the scope and types of Polish influencers' engagement in the pro-vaccine campaign during the COVID-19 pandemic. The research sample was limited to influencers:

1. communicating in the Polish language,
2. using Instagram as the main channel of communication with their followers,
3. listed in Top 1000 Instagram Influencers in Poland in 2021 list, created by StarNgage - an influencer marketing platform (StarNgage, 2021),
4. who are nano- or micro-influencers - their audience ranges no more than 100 000 followers,
5. who presents a mix of focuses – e.g., lifestyle, food, medicine, food, zero waste living, and others.

The decision to exclude macro- and mega influencers from the sample was a conscious author's decision, as they usually have many followers. Still, they usually cannot build an impressive engagement and do not relate to the everyday problems of the average social media user.

To assess social media influencers' engagement in the pro-vaccination campaign, the author conducted a systematic social media content analysis of Polish influencers' Instagram accounts from 27 December 2020, when the first person was vaccinated against COVID-19 in Poland (Jarynowski and Skawina, 2021), till 30 June 2021. Additionally, the author analyzed the content of direct messages from followers provided by some of the influencers.

### **5. Social Media Influencers' Engagement in the Pro-Vaccination Campaign: Results of Systematic Analysis of Social Media Content**

As presented in the second part of the following paper, in Poland, we may observe a specific need to encourage citizens to vaccinate against COVID-19 disease. Currently, the vaccination rate is still far from the recommended by WHO 80% of the adult population (World Health Organization, 2020) – it is 36,7% as of the beginning of July (Medonet. pl, 2021). What is even more worrying, the willingness to vaccinate against COVID-19 among unvaccinated people aged 18-24 is only 49% (Medonet. pl, 2021). As the official communication of the government may not reach them, influencers can.

Types of influencers-generated content related to COVID-19 vaccines: According to the analysis conducted following the procedure presented in the third part of the paper, it can be stated that there are several forms of influencers' engagement in the informal pro-vaccination campaign. Mainly, influencers:



1. increase the reach of existing social campaigns and official information through sharing them,
2. exchange COVID-related content with other influencers to increase its reach,
3. enthusiastically inform about the increasing number of people fully vaccinated,
4. report their immunization and how they feel after it, showing that it is quick and safe,
5. consent to use their image in reference to the vaccination topic,
6. invite doctors and scientists to their social media profiles to provide their followers with the most recent knowledge about the vaccines,
7. create actions and hashtags which role is to engage users in the topic of the vaccine against COVID,
8. present their real, everyday engagement in the issue (mainly, but not limited to the case of medical influencers),
9. try to refute fake news about COVID-19 vaccines and the pandemic in general, which are regularly spread by so-called “anti-vaxxers”,
10. dispel doubts about vaccines of some producers, especially AstraZeneca, about which some Poles are distrustful,
11. encourage their followers to spread the knowledge about the vaccines out of Instagram, especially to the elderly members of their families and friends, who are not active in social media,
12. share powerful images to evoke emotions about the need for vaccination (Figure 2).

**Figure 2.** Instagram post of @yanek43, Polish influencer and paramedic



*Source: Instagram.*

It is important to emphasize that most of the influencers analyzed in this research claimed to promote vaccines for free, with no cooperation with the government; however, it was signaled in the media that some of them may encourage vaccines as a part of paid cooperation with Polish Government Information Center (Wirtualne Media, 2021).

The type of language in influencer-generated content related to COVID-19 vaccine: The influencers communicating about vaccines generally do not differ from other social media users; however, one can state that their engagement has some specific language features. In the course of the content analysis procedure, the author identified seven main categories. First, the influencers try to make their communication about vaccines as clear and understandable as possible. Moreover, they use inclusive language and avoid certain expressions or words that might exclude groups of people. This approach helps to show that herd immunity of the populations should be subject of interest to all social groups. At the same time, they communicate forcefully and do not let anyone discuss the need for urgent vaccination; in Table 2 selected examples of language used by Polish influencers in their communication about COVID-19 vaccines.

**Table 2.** Selected examples of language used by Polish influencers in their communication about COVID-19 vaccines

Category defined	Selected, illustrative examples
clear, understandable	<ul style="list-style-type: none"> <li>• "I get many questions from you about vaccinations, and I really have no secret knowledge. I have all the information from the government, media, and my own experience. Everyone can google it, but I have collected the most important information because I want as many people as possible to get vaccinated as soon as possible. They will be pinned on my profile,"</li> <li>• "Vaccinated! No complications, no stress, and no undesirable situations. Quickly, painlessly. As it should be."</li> <li>• "Can I calm you down somehow? Remember that it is OK to have doubts about vaccinations or simply to be afraid of them - but I would like to try to dispel these doubts. I invite you to my YouTube channel (...), where you will find a total of almost 3 hours of talks with great experts."</li> </ul>
inclusive	<ul style="list-style-type: none"> <li>• "Call the helpline or vaccination points in your area, let your friends know, postpone the dates for parents and grandparents to earlier."</li> </ul>
forceful, decisive	<ul style="list-style-type: none"> <li>• "You ask me if it is better to be vaccinated with AstraZeneca or wait for Pfizer? I answer, it is better to get vaccinated as soon as possible, get Astra!"</li> <li>• "(...) and here the doctor is trying to calm the panic that sowed the harmful and totally irresponsible statement of the episcopate."</li> </ul>
direct, honest	<ul style="list-style-type: none"> <li>• "It's a mess. I do not know how vaccines are distributed across regions or small clinics, but as far as I know, there are very few of them in small towns, and almost every day I read about hospitals where there are more vaccines than those willing to vaccinate. Therefore, if you can, help seniors, get interested in parents, grandparents from small towns, get their PESEL number, call the hotline and ask about dates in nearby, larger cities. If you have a chance, give them a lift!"</li> <li>• "Is someone reluctant to get vaccinated and needs a kick in the butt?"</li> </ul>

funny, humorous	<ul style="list-style-type: none"> <li>• “I’m getting vaccinated today, tomorrow I’m getting a “Comirnaty” tattoo.”</li> <li>• “I saw a meme that when you are an introvert, it is best not to boast about the vaccine in public because then you can still avoid meeting with people.”</li> <li>• “Virus database has been updated”</li> <li>• “What’s up in the vaccine city?”<sup>2</sup>/ “Good news for the vaccine city residents!”/“Important info from the vaccine city!”/“As the self-proclaimed mayor of vaccine city, I kindly inform you…”</li> <li>• (...) or maybe everyone gets a piece of cake after vaccination? Well, it can be like that, YOU HAVE TO VACCINATE TO FIND OUT!!!! I do recommend.”</li> </ul>
emotional	<ul style="list-style-type: none"> <li>• “Second dose. The most important event of today. Ba! Year! Or even two years!”</li> <li>• “I know it’s not cool, we all have enough. Really, if it was up to me, I would deactivate the virus tomorrow. But it’s not up to me, the pandemic continues - and it is unlikely to end by closing your eyes.”</li> <li>• “How much knowledge, commitment, experience, courage, and skills met to create such a great thing so quickly! It’s inspiring. Impossible does not exist.”</li> <li>• “(...) More and more people among family and friends in various parts of Poland were vaccinated. More and more messages from you that you are already after the vaccination. I am happy, and that’s all :).”</li> </ul>
evidence-based	<ul style="list-style-type: none"> <li>• “And if someone around you still hesitated whether it’s worth to vaccinate according to the data of the Ministry of Health, approx. 99% of deaths due to COVID were recorded in unvaccinated people.”</li> </ul>

*Source: Own elaboration based on content analysis of Polish-speaking influencers' posts and stories on Instagram. Author's translation. Data collected between 27/12/2020 and 30/06/2021.*

## 6. Discussion

The above-presented categories of COVID-related content created by nano- and micro-influencers also apply to the followers' feedback and engagement; however, three of them are exceptionally often observed: inclusiveness, humor, and emotions. Also, it is easily indicated that this type of content creates relatively high followers' engagement compared to other popular social media topics.

Defined categories and presented examples allow us to conclude that vaccinations are a very emotional topic. Still, both influencers and followers in their feedback try to get used to it with humor, positive emotions, and everyone is included. Simultaneously, the analysis of comments and direct messages sent by followers

<sup>2</sup> In original, it is "Szczepionkowo", which can be translated as "Vaccineville", "Vaccine town", "Vaccine city", etc.

shows affective, behavioral, and cognitive deficiencies in the official government's information campaign. Users are often lost, unable to find basic information, need organizational and emotional support and evidence-based discussion.

**Table 3.** Selected examples of language used by followers of Polish influencers in their feedback about COVID-19 vaccines

Category defined	Selected, illustrative examples
inclusive	<ul style="list-style-type: none"> <li>• “(...) Thanks to your posts, my 60 years old mother became a vaccine influencer in her workplace. She printed forms for her colleagues (...), reminded her colleagues to be registered for the vaccination, and suggested when there were additional vaccinations terms available in our small town. I am very proud of her!”</li> <li>• “Thanks for the info about vaccinations - I just made my dad call infoline and he is due for vaccinations in 2 weeks, and so far, he has been waiting for information from the local clinic.</li> </ul>
funny, humorous	<ul style="list-style-type: none"> <li>• “I forgot to ask for the "brave patient" sticker.”</li> <li>• "Who would try to get a sticker when you can win a scooter."</li> <li>• “Now I am a full-fledged citizen of the vaccine city”/ “Will I get honorary citizenship, madam mayor?”/ “What a beautiful city – vaccine city!”</li> </ul>
emotional	<ul style="list-style-type: none"> <li>• "I just signed up my mother for Pfizer at the end of the month, and I feel incredibly relieved. When I disconnected from the hotline, I was applauded at home."</li> <li>• “I called the Infoline, made an appointment right away, and I have a vaccination this Friday. I could not believe it!”</li> <li>• "I managed to postpone the date of vaccinating my parents, and I am so happy because I know that they will be able to come to me safely soon!"</li> <li>• “I didn’t have time to get a vaccination, Covid was faster. I had a bag ready for the hospital during the disease because I was afraid that I might end up there. I envy anyone who has the opportunity to minimize this feeling of fear."</li> <li>• "Thanks to you, we all will be able to meet, fully vaccinated in August, with the whole family, at my brother's intimate wedding &lt;3."</li> <li>• “I vaccinated on the same day, 120 km from my place of residence, feeling as if I had won the lottery”</li> </ul>

**Source:** Data obtained from own content analysis and materials provided by selected influencers between 27/12/2020 and 30/06/2021.

The research presented above has some limitations. The most important of them is sample selection bias and limited access to influencers. Even though the author has made every effort to obtain comprehensive and representative data, she had limited ability to access the entirely appropriate scope of influencers and their followers. This can be changed during the subsequent, planned quantitative research. Also, the author is conscious that there is a strong society of "anti-vaxxers" on the Polish Internet, who represent the opposite, very opposing opinions on vaccination.

## 7. Conclusion

As it was discussed in the previous part, Polish influencers join the effort to get Poles vaccinated. More and more unsponsored micro-influencer campaigns are popping up on social media, with a growing number of people following them and engaging with them. Micro and nano influencers are trusted authorities within their communities of followers. They are still considered average Internet users, having the same everyday problems and doubts (unlike mega influencers). It seems that their actions may be a simple and effective solution to a common problem for official, public health communicators (government, local government, health ministry, and others) – it is easier for them to reach people, who do not want to be caught, but at the same time spend much time on the Internet. Influencers can be an effective "communication tool" - especially in young people, where the consumption of traditional media is negligible.

On the COVID-19 vaccines influencers' actions, it can be easily observed that they are eager to use the increasing reach and influence on their followers to do something good and socially beneficial. They need to spread COVID-19 pro-vaccination campaign's key messages, and they take seriously the possibility of being socially responsible. This kind of activity brings them a growing recognition and strengthens their positive image. We can also observe that health care leaders are more and more willing to rely on social media influencers to battle vaccine skepticism, especially in hard-to-hit minorities. For this reason, they willingly engage in interviews (e.g., in the form of Instagram "live") or providing them with the most recent scientific data or in other types of cooperation. Some health care leaders, including doctors, paramedics, nurses, and biotechnologists, decide to become influencers themselves, as they perceive the growing need to educate social groups reachable through social media.

However, there is only weak evidence for health-promoting effects through the communication of influencers (Krisam and Altendorfer, 2021), their impact on customers' participation with content related to COVID-19 is already confirmed (Al Khasawneh *et al.*, 2021). As social media and influencers activity development is more intense, there is an urgent need to investigate their role and effectiveness in critical social campaigns.

## References:

- Al Khasawneh, M., Abuhashesh, M., Ahmad, A., Masa'deh, R., Alshurideh, M.T. 2021. Customers Online Engagement with Social Media Influencers' Content Related to COVID 19. In: Alshurideh, M.T., Hassanien, A.E., Masa'deh, E.R. (Eds.). The Effect of Coronavirus Disease (COVID-19) on Business Intelligence, 385-404. Springer International Publishing. [https://doi.org/10.1007/978-3-030-67151-8\\_22](https://doi.org/10.1007/978-3-030-67151-8_22).
- Apuke, O.D., Omar, B. 2021. Fake news and COVID-19: modeling the predictors of fake news sharing among social media users. *Telematics and Informatics*, 56, 101475. <https://doi.org/https://doi.org/10.1016/j.tele.2020.101475>.
- Berelson, B. 1952. Content analysis in communication research. Free Press.

- BigCommerce. 2021. The State of Influencer Marketing: 10 Influencer Marketing Statistics to Inform Where You Invest. Retrieved from: <https://www.bigcommerce.com/blog/influencer-marketing-statistics/#what-is-influencer-marketing>.
- BIOSTAT. 2021. Prawie 1/4 Polaków nie zamierza się zaszczepić przeciw COVID-19. Retrieved from: [https://www.biostat.com.pl/prawie\\_1-4\\_polakow\\_nie\\_zamierza\\_sie\\_zaszczepic\\_przeciw\\_covid\\_19.php](https://www.biostat.com.pl/prawie_1-4_polakow_nie_zamierza_sie_zaszczepic_przeciw_covid_19.php).
- Bloomberg. 2021. More Than 3.1 Billion Shots Given: Covid-19 Trackere. Retrieved from: <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/#global>.
- CBOS. 2021. Stosunek do szczepień przeciw COVID-19 i ocena ich organizacji. Retrieved from: [https://www.cbos.pl/SPISKOM.POL/2021/K\\_050\\_21.PDF](https://www.cbos.pl/SPISKOM.POL/2021/K_050_21.PDF).
- Cialidini, R.B. 2020. Influence: The Psychology of Persuasion. William Morrow.
- De Veirman, M., Hudders, L. 2020. Disclosing sponsored Instagram posts: The role of material connection with the brand and message-sidedness when disclosing covert advertising. *International Journal of Advertising*, 39(1), 94-130.
- Digital Marketing Institute. 2021. Covid-19 Handbook for Social Media Managers. Retrieved from: <https://digitalmarketinginstitute.com/resources/ebooks/covid-19-handbook-for-social-media-managers>.
- European Center for Disease Prevention and Control. 2016. Let's talk about hesitancy: Enhancing confidence in vaccination and uptake, 30. Retrieved from: <https://www.ecdc.europa.eu/en/publications-data/lets-talk-about-hesitancy-enhancing-confidence-vaccination-and-uptake>
- Holsti, O.R. 1969. Content analysis for the social sciences and humanities. Addison-Wesley Publishing Company.
- Howard, P.N. 2002. Network ethnography and the hypermedia organization: new media, new organizations, new methods. *New Media & Society*, 4, 550-574.
- Humphreys A., Wang, R.J.H. 2018. Automated Text Analysis for Consumer Research. *Journal of Consumer Research*, 44(6), 1274-1306.
- Jarynowski, A., Skawina, I. 2021. Attempt at profiling and regionalisation of COVID-19 vaccine campaigns in Poland - Preliminary results. *European Journal of Translational and Clinical Medicine*, 4(1), 13-21. <https://doi.org/10.31373/ejtc/134674>.
- Katz, E., Lazarsfeld, P.F. 1955. Personal Influence. The Part Played by People in the Flow of Mass Communication. Free Press. <https://doi.org/10.1007/978-3-658-21742-6>.
- Krippendorff, K. 2004. Content analysis: An introduction to its methodology. Sage.
- Krisam, M., Altendorfer, L.-M. 2021. Influencer-Marketing im Gesundheitswesen: Eine Übersicht. *Gesundheitswesen*, 6. Retrieved from: <https://www.thieme-connect.de/products/ejournals/abstract/10.1055/a-1377-6478#>.
- Lewis, S.C., Zamith, R., Hermida, A. 2013. Content analysis in an era of Big Data: A hybrid approach to computational and manual methods. *Journal of Broadcasting & Electronic Media*, 57(1), 34-52.
- Marketing przy kawie. 2021. Maciej Musiał i Cezary Pazura na „Ostatniej prostej” w rządowej kampanii szczepień (Maciej Musiał and Cezary Pazura on the "Last Straight" in the government vaccination campaign). Retrieved from: <https://marketingprzykawie.pl/espresso/maciej-musial-i-cezary-pazura-na-ostatniej-prostej-w-rzadowej-kampanii-szczepien/>.
- McMillan, S.J. 2000. The microscope and the moving target: The challenge of applying content analysis to the World Wide Web. *Journalism & Mass Communication*

- Quarterly, 77(1), 80-98.
- Medonet.pl. 2021. Szczepienia przeciw COVID-19 w Europie. Jak wypada Polska? Najnowszy Ranking (Vaccinations against COVID-19 in Europe. How is Poland doing? Latest Ranking). Retrieved from: <https://www.medonet.pl/koronawirus/koronawirus-w-europie,szczepienia-na-covid-19-w-europie--jak-wypada-polska--ranking,artykul,01126539.html>.
- Orso, D., Federici, N., Copetti, R., Vetrugno, L., Bove, T. 2020. Infodemic and the spread of fake news in the COVID-19-era. *European Journal of Emergency Medicine*, 27(5), 327-328.
- PROTO.PL. 2021. Czy sportowcy przekonają Polaków do szczepień? (Will athletes convince Poles to vaccinate?). Retrieved from: <http://www.proto.pl/aktualnosci/ostatnia-prosta-kampania-szczepienia-covid-19-opinie-ekspertow>.
- Riffe, D., Lacy, S.R., Fico, F.G. 2005. Analyzing media messages: Using quantitative content analysis in research (2nd ed.). Lawrence Erlbaum Associates.
- Sah, S., Malaviya, P., Thompson, D. 2018. Conflict of interest disclosure as an expertise cue: Differential effects due to automatic versus deliberative processing. *Organizational Behavior and Human Decision Process*, 147, 127-146.
- Scarpetta, S., Pearson, M., Colombo, F., Lopert, R., Dedet, G., Wenzel, M. 2021. Access to COVID-19 vaccines: Global approaches in a global crisis. *OECD Policy Responses to Coronavirus*, March, 1-30.
- Sjøvaag, H., Stavelin, E. 2012. Web media and the quantitative content analysis: Methodological challenges in measuring online news content. *Convergence: The International Journal of Research into New Media Technologies*, 18(2), 215-229.
- StarNgage. 2021. Top 1000 Instagram Influencers in Poland in 2021. Retrieved from: <https://starngage.com/app/global/influencer/ranking/poland>.
- Titscher, S., Meyer, M., Wodak, R., Vetter, E. 2000. *Methods of text and discourse analysis*. Sage Publications.
- van der Linden, S., Roozenbeek, J., Compton, J. 2020. Inoculating Against Fake News About COVID-19. *Frontiers in Psychology*, 11, 2928. <https://doi.org/10.3389/fpsyg.2020.566790>.
- Vrontis, D., Makrides, A., Chrisofi, M., Thrassou, A. 2021. Social media influencer marketing. A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies*, 45, 617-644.
- Waligóra, M. 2021. How does Poland's COVID-19 vaccine rollout compare to other countries? retrieved from: <https://notesfrompoland.com/2021/02/08/how-does-polands-covid-19-vaccine-rollout-compare-to-other-countries/>.
- Weare, C., Lin, W.Y. 2000. Content analysis of the World Wide Web: Opportunities and challenges. *Social Science Computer Review*, 18(3), 272-292.
- White, M.D., Marsh, E.E. 2006. Content analysis: A flexible methodology. *Library Trends*, 55(1), 22-45.
- Wirtualne Media. 2021. Rząd z pomocą influencerów będzie namawiał do szczepień młodych (The government, with the help of influencers, will urge youngsters to be vaccinated). <https://www.wirtualnemedi.pl/artykul/szczepienia-mlodych-covid-19-rzadowa-kampania-z-influencerami-opinie>.
- World Health Organization. 2020. Coronavirus disease (COVID-19): Herd immunity, lockdowns and COVID-19. Retrieved from: <https://www.who.int/news-room/q-a-detail/herd-immunity-lockdowns-and-covid-19>.