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Commercialising public health during the 1918-1919 Spanish flu pandemic in Britain

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Abstract

Purpose – This paper aims to use the advertisements of three major brands – Chymol, Formamint and Lifebuoy Soap – to examine how advertisers responded to the 1918–1919 influenza pandemic in Great Britain influenza pandemic. It looks particularly at the ways in which marketing strategies changed and how these strategies were enacted in the lexical and semiotic choices (e.g. language, image, colour, typography, texture, materiality, composition and layout) of advertisements.

Design/methodology/approach – A total of 120 advertisements for the three brands were collected from the British Newspaper Archive and analysed using the theory and analytical tools of multimodal critical discourse analysis. The general themes and semiotic structures of the advertisements were identified, with the aim of deconstructing the meaning potentials of verbal and visual resources used to convey ideas about the pandemic, and how they work to shape public understanding of the products and make them appear as effective and credible.

Findings – Each brand rapidly changed their marketing strategy in response to the influenza pandemic, using such techniques as testimonials, hyperbole, scaremongering and pseudoscientific claims to persuade consumers that their products offered protection. Whilst these strategies may appear manipulative, they also had the function of fostering reassurance and sympathy amongst the general public in a moment of turmoil, indicating the important role of brands in building consumer trust and promoting a sense of authority in early twentieth-century Britain.

Originality/value – Exploring the way in which advertisers responded to the 1918-1919 influenza pandemic reminds us of the challenges of distinguishing legitimate and illegitimate medical advice in a fast-moving pandemic and highlights the need to cast a critical eye to the public health information, particularly when it comes from unofficial sources with vested interests.

Keywords Marketing history, Public health, Misinformation, Great Britain, Advertisements, Spanish flu

Paper type Research paper

Introduction

The COVID-19 pandemic has accentuated the dangers of misinformation, giving rise to an explosion of damaging health advice and politically motivated conspiracy theories across social media platforms. False rumours, bias, ambiguity and emotionalised language can distort meanings and conceal intentions, thereby influencing attitude formations and

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eliciting fear or suspicion amongst the general public (Allcott *et al.*, 2019, p. 6). This "infodemic" has made it clear that, in times of crisis, communicating information in a timely, relevant and complete manner is of paramount importance to ensuring public health. Just over 100 years ago, the world was gripped by a similar pandemic: the H1N1 influenza A virus [1]. Between 1918 and 1920, the "Spanish flu [2]", as it was more popularly known, infected over 500 million people and killed around 5% of the global population (Spinney, 2018). Like now, the general public was bombarded with conflicting messages on how to keep safe and debates arose around wearing masks, washing hands, ventilating buildings, closing schools and catching public transport. Across the world, canny manufacturers sought to capitalise upon this confusion, seeing the pandemic as an opportunity to reframe their food products, medicines and toiletries as magical elixirs that could stave off influenza, and thus, maximise their sales potential.

This paper uses the advertisements of three major brands – Chymol, Formamint and Lifebuoy – to examine how marketing strategies changed in response to the 1918–1919 influenza pandemic. The advertisements are explored through multimodal critical discourse analysis (MCDA) (Ledin and Machin, 2018a, 2020) to investigate the ways in which lexical and semiotic resources were used to take advantage of public anxieties and uncertainties around influenza and convince consumers to protect themselves by purchasing certain products. Overall, I argue that investigating public health communication from a historical perspective reminds us of the challenges of distinguishing legitimate and illegitimate medical advice in a fast-moving pandemic and highlights our need to cast a critical eye to public health information, particularly when it comes from unofficial sources with vested interests.

Whilst much has been written about the 1918–1919 influenza pandemic, little attention has thus far been paid to the role that commercial advertisements played in transmitting public health discourse. Most accounts remain anecdotal and limited to blog posts and popular science magazines, most of which emerged at the beginning of the COVID-19 pandemic and are concerned with a US context (Wheelock, 2020). The topic is addressed briefly by Johnson (2006) in his monograph on the British response to the virus and Honingsbaum (2013) in his paper on the portrayal of Spanish influenza in *The Times* and *Daily Mail*. Loeb (2005) has also explored the medical advice and remedies promoted by British medical practitioners during the pandemic. Outside of Britain, some research has been carried out on public awareness and newspaper responses to Spanish influenza in Italy (Tognotti, 2003), Switzerland (Ammon, 2002) and the USA (Dicke, 2015). However, all of the above works are grounded in the social history of medicine rather than sociolinguistics and visual communication studies, which means that scant consideration has been paid to the power of semiotics and how particular linguistic and visual choices in advertisements can be used to influence consumers during a public health crisis. Therefore, this paper will break new ground by applying a sociolinguistic lens to the 1918–1919 influenza pandemic, using MCDA to investigate a previously unexplored dataset of commercial advertisements published in Britain and held in the British Newspaper Archive. Its findings will serve as an important reference point for those researching both historical and contemporary forms of public health communication, whether official or unofficial, and demonstrate how the meaning potentials of semiotic resources can be mobilised by those in positions of power for their own personal agendas.

The 1918–1919 Spanish Influenza Pandemic: A Brief History

There is no clear agreement on the origin of Spanish influenza. Some scientists believe that the virus originated in a military base in Kansas, USA (Crosby, 2003), whilst others have

theorised that it came from a hospital camp in Étaples, France, which was also home to a piggery (Oxford *et al.*, 2005). Researchers have also claimed that influenza resulted from the mobilisation of 96,000 Chinese labourers to work on the Western Front (Langford, 2005), but recent reports by Shanks (2016) and Worobey *et al.* (2019) have disputed this claim, having found evidence that this particular strain of influenza had been circulating in Europe for months or even years before the 1918-1919 pandemic. Likewise, no clear explanations have been given for the rapid transmission rate of the virus, although most agree that the malnourishment, overcrowding and poor hygiene of World War One military camps, coupled with the weakened immune systems of soldiers brought about by the stresses of combat and chemical attacks, were major factors (Erkoreka, 2009). Whatever the origin or reason for its spread, by summer 1918, Spanish influenza was rampant across the whole world.

The pandemic occurred in three major waves. The first wave ran from June to August 1918 and was associated with low mortality. Most sufferers complained of typical influenza symptoms, such as sore throats, headaches, fatigue and fever, but typically recovered after several days (Spinney, 2018). The third wave in early 1919 was more serious, but disappeared fairly quickly as doctors had got better at preventing pneumonia and, by now, the virus had mutated into a less lethal strain. However, the second wave, which ran from October to December 1918, was extremely deadly. Masek (2015) links this deadliness to the conditions of World War One, which led the process of natural selection to be reversed: soldiers with mild cases of influenza remained where they were, whereas the severely sick were sent back home on crowded trains and boats, thereby swiftly spreading the more virulent strain. By autumn 1918, the basic reproduction number of the virus was between 2 and 3 and severe cases were being reported as far afield as Brest, Freetown and Boston (Mills *et al.*, 2004).

What made Spanish influenza so different from previous influenza outbreaks (most recently, the Russian influenza of 1889–1890) was that it exponentially killed previously healthy young adults rather than the elderly or babies, with roughly 60% of all deaths falling into the 20-40-year-old categories (Garrett, 2007; Erkoreka, 2010). Scientists believe that these high rates of youth mortality were caused by a strong immune reaction in young adults known as a cytokine storm, which overstimulated their immune systems, releasing leukocytes that destroyed lung cells and secreted blood and mucus into the alveoli and airways, which promptly suffocated them (Patterson and Pyle, 1991).

Spanish influenza and public health (mis)communication in Britain

Glasgow was the first place in Britain to record a case of influenza in May 1918. Within weeks, the virus had spread south to London, facilitated by the country's modern railway network. By the end of the month, more than 31,000 cases had been reported throughout the country, hospitals were becoming overwhelmed and medical students were drafted in to help (Johnson, 2006, p. 56). Despite the increasing severity of the virus, the British Government's response was slow. The topic was not mentioned in Parliament until October 1918 (despite Prime Minister Lloyd George becoming infected in September) and no strategy was put in place to prevent its spread. Reluctance to address the problem was partially due to the desire to keep up wartime morale but also influenced by the medical profession's incomprehension of the virus's severity (ibid). The Royal College of Physicians claimed that Spanish influenza was no more threatening than the Russian influenza of 1889-1890, whilst the *British Medical Journal* emphasised that overcrowding on public transport and in the workplace was an essential part of the war effort (cited in Hume, 2018).

With the national government's "armchair complacency", individual councils took it upon themselves to act. A series of decentralised and uncoordinated attempts to control the virus took place across the country, ranging from disinfecting and fumigating buildings, closing schools and ventilating public spaces to the publication of general advice on catching later trains to avoid crowds, wearing extra layers, thoroughly washing drinking glasses and avoiding handshakes and kisses (Spinney, 2018). In response to these local measures, chemists reported panic-buying of quinine and other medications amongst anxious consumers, seeking to protect themselves from this deadly virus (Honingsbaum, 2013). The confusion surrounding protective measures was lampooned in the *Daily Mirror* in a cartoon entitled "how to avoid Spanish influenza", whilst misinformation spread like wildfire across the national newspapers.

The Times openly stated that influenza was caused by "war weariness" (25 June 1918), whilst *John Bull* claimed that influenza was, in fact, swine fever spread by infected bacon (14 December 1918). A series of conspiracy theories also emerged, from influenza being circulated through aspirins produced by German pharmaceutical company Bayer (Spinney, 2018) or being an "ingenious attempt" to sabotage the forthcoming general election (cited in Hume, 2018) or "a punishment from heaven" for those who sang lewd songs (*Yorkshire Evening Post*, 10 July 1918). Newspapers were also full of complaints that masks were "gags" or "muzzles" that made people look ugly, steamed up their glasses and were as helpful as "using barbed wire to shut out flies" (*Yorkshire Evening Post*, 27 February 1919; *Ealing Gazette and West Middlesex Observer*, 15 March 1919).

Manufacturers and business owners saw the public's increasing panic, the government's poor communication and doctors' lack of consensus as a highly lucrative opportunity. Throughout the summer of 1918, products and services were all relaunched under new advertising campaigns centered around building resilience against influenza. These advertisements were not only published widely in national newspapers and magazines, but actively encouraged by the newspapers themselves. An editorial in the film weekly *Bioscope*, for example, told cinemas:

> Do not hesitate to get into print and tell your public that the atmosphere is purer, cleaner and healthier than that of a tram, bus, tube, train and crowded shop. Remind them that the germ cannot live in pure air, such as the current that passes through *your* theatre" (7 November 1918).

At the time of the Spanish influenza outbreak, around £20m was being spent annually on advertising in Britain, with newspapers accounting for 90% of all advertisements (Fletcher, 2017, p. 17). These advertisements were particularly aimed at the middle classes: a group with greater disposable income and a strong attraction to fashionable, rather than necessary, goods to improve their well-being (Gurney, 2017, p. 35). As the "chancelloresses of the family exchequer" (Loeb, 2005, p. 22), middle-class women were targeted over men, with a 1913 report noting that 90% of advertisers chose to leave men out of their advertisements when designing them (ibid).

By this period, stringent legislation had been introduced in Britain on product labelling, which had clamped down on food adulteration and the quackery of patent medicines (i.e. 1875 Sale of Food and Drugs Act, 1907 Public Health Act), paving the way for branded foods as a marker of consistently high standards from a trusted source (Hawkins, 2017, p. 18). However, regulations surrounding the advertising of products remained somewhat grainy. The Merchandise Marks Act 1887 had banned false Royal Warrants and stopped foreign manufacturers from falsely claiming that their goods were British made, whilst the Sale of Goods Act 1893 upheld advertising as a contract between consumer and manufacturer that must be regulated to ensure consumer protection (Fletcher, 2017, p. 20). Furthermore,

the Advertisements Regulation Act 1907 banned "indecent advertising" and controlled the extent of outdoor advertisements and their potential disfigurement of the countryside (Taylor, 2016). Nonetheless, no robust rules on what defined false or misleading claims in advertisements were put into place until much later in the 1968 Trade Descriptions Act. This legislative gap left the field open for advertisers to be economical with the truth (Cocks, 2006). As a result, according to Loxham (2016, p. 198), by the beginning of the twentieth century, advertising had evolved into a "systematic deployment of control mechanisms based on psychology, to manage economic activity through directing consumer choice". Indeed, in his seminal book *Advertising in Britain*, Nevett (1982) highlights various cases brought before the National Vigilance Committee by disgruntled consumers who felt that companies had distorted facts in their advertisements.

Therefore, when advertising, brands had to tread a fine line between using rhetoric and stylistics to generate interest in their products and promoting a sense of honesty, integrity and quality to build consumer trust (O'Hagan, 2020). This was particularly important during the 1918–1919 influenza pandemic – a time of international crisis with emotions running high. As we will see through the examples of Chymol, Formamint and Lifebuoy that will be explored in this paper, this was achieved by drawing on a combination of pseudoscientific evidence and visual cues to overstate the products' value and convince consumers that they were essential for preventing influenza. Whilst these strategies can be seen as manipulative, they also had the function of fostering reassurance and sympathy in a moment of turmoil (Loxham, 2016, p. 198). As Clampin (2014) notes in his study of advertising in World War Two, most people wanted to get through each day sustained by the thought of normality and advertisements helped them achieve this by offering practical, down-to-earth support rather than fostering an ideal promoted by government propaganda. Similar factors are at work in many commercial advertisements from the 1918–1919 influenza pandemic, indicating a complexity in a practice that may appear purely devious on the surface.

Methodology and data

Applying the theory and analytical tools of MCDA, this study investigates a large body of advertisements by Chymol, Formamint and Lifebuoy to develop a better understanding of how advertisers responded to the 1918–1919 influenza pandemic. It specifically seeks to address the following interrelated questions: how did the marketing strategies of Chymol, Formamint and Lifebuoy change in response to the 1918–1919 influenza pandemic? And how were these strategies enacted in the lexical and semiotic choices of their advertisements?

The data on which this paper draws comes from broader research into commercial advertising during the 1918–1919 influenza pandemic in Britain. Initially, the keywords "influenza" and "flu" were used to search for advertisements on food and drink products, medicines, cosmetics and toiletries in the British Newspaper Archive during the period between June 1918 and June 1919: the dates that correspond with the beginning of the first wave and the end of the third wave of the pandemic. This process clearly revealed three brands that were advertised most extensively as influenza cures, namely, the malt extract Chymol, the lozenge Formamint and Lifebuoy soap. These three brands are the focus of this paper.

In what follows, each brand is explored, in turn, using a three-part format. In the first part, a brief history of the product is provided and its advertising strategies before the pandemic. This data was obtained by searching the British Newspaper Archive for Chymol, Formamint and Lifebuoy advertisements prior to 1918 and identifying general themes or

features in their textual and visual content [3]. In the second part, the general themes and semiotic structure of the product's advertisements between 1918 and 1919 are outlined to indicate how advertising strategies changed in response to the pandemic. For this stage, the British Newspaper Archive was used to obtain general quantitative data on the frequency of advertisements per brand and across newspapers. This revealed that advertisements were being published almost every day during the height of the pandemic, yet most were repeated, with only a small body of varied advertisements being circulated. Given this repetition, the advertisements for each month were manually sifted and 120 of the most frequently recurring were chosen for more detailed analysis [4]. In the third part, the theory and analytical tools of MCDA are used to examine one prototypical advertisement from the sub-data set of 120 advertisements. Combining these three aspects will help generate knowledge on the ways in which manufacturers changed their marketing tactics during the pandemic and used the affordances of semiotic resources to promote public health discourses and convince consumers that their products were scientific influenza remedies.

MCDA is a qualitative approach that derives from social semiotics and brings together two important methodologies from the field of sociolinguistics, namely, multimodality and critical discourse analysis. Multimodality is concerned with how different semiotic resources work together to make meaning, whilst CDA seeks to demonstrate how certain practices, ideas, values and identities are promoted, naturalised and transmitted through discourse (Machin and Mayr, 2012, p. 5; Ledin and Machin, 2018a, p. 4). Discourse is central to MCDA and is seen as a set of socially constructed beliefs and a form of knowledge that is significant for how we think and act in particular situations. MCDA seeks to demonstrate how lexical and semiotic resources (e.g. language, image, typography, colour, texture, materiality, layout and composition) are co-deployed to shape the representation of discourse and to draw out the types of ideas and values that are foregrounded, abstracted or concealed, thereby pointing to their ideological and/or political consequences (Machin, 2013, p. 35). When used in the context of commercial advertisements in the 1918–1919 influenza pandemic, MCDA can help deconstruct the verbal and visual choices used to convey ideas about the pandemic and how they work to shape public understanding of the products and make them appear as effective and credible.

My approach to MCDA draws particularly on the work of Ledin and Machin (2018a, 2020), who designed a set of analytical tools to critically interrogate the meanings of semiotic choices and how they shape what we do, how we think and how we experience the world. These tools focus particularly on the following key elements, namely, the lexical and grammatical choices of texts; image, including participants, actions, perspectives, angles and distance; colour, particularly meaning potentials in terms of emotions, attitudes and values; typography, especially the cultural connotations of certain typefaces; texture and materiality in terms of their physical and symbolic meanings; and layout and composition, made up of salience, framing, coordination and hierarchies.

As Ledin and Machin's toolkit was designed for contemporary texts, I also embed these semiotic choices in evidence from historical newspapers and medical papers on the 1918–1919 influenza pandemic to take into account the advertisements' context of creation and any culturally-specific knowledge that may have guided their structure. In doing so, I ensure that my analysis and interpretation of public health discourse is not only anchored in a specific historical context but also in specific historical norms of communication, past affordances of materials and resources and early twentieth-century scientific/medical expertise. This is essential in the study of advertisements because they are socially situated media that exploit the wider visual environment by

which readers learn and live and only work effectively by creating identification with them (Loxham, 2016, p. 212).

"Chymol: The Food That Builds"

Chymol emerged onto the British food market in early 1916. It was produced by Messrs. Armour and Co. Ltd, an American meat-packing company who sold a wide range of animal products and had established a factory in London by the late nineteenth century. According to a report in the British Medical Journal (1915, p. 826), the two main ingredients in Chymol were bone marrow and egg yolk. It was described as a highly palatable food that had "the consistence of a fairly thin malt extract". Chemical tests on the product showed it to contain high levels of iron and emulsified fat, which made it particularly suitable for "invalids, convalescents and infants". Chymol was sold in tins of three different sizes and could be eaten plain, spread on biscuits and bread or mixed with milk, wine or gruel. Shortly after its launch on the market, Chymol published a promotional piece in The Chemist and Druggist (1916, p. 26), asking pharmacists to cooperate with the brand on a selling scheme that would give them compensation if they created counter shows and window displays with the product. Already at this early stage in its development, Chymol was aware of how to engage with the public and generate interest in its product.

Before the 1918-1919 influenza pandemic

In Chymol's advertisements from March 1916 to March 1918, any references to influenza are conspicuously absent. Instead, most advertisements are aimed at two target audiences, namely, women munition workers suffering from "war worry" and babies and young children with stunted growth. Images show tired factory women alongside the unsubstantiated claims that "the long hours and noisy unaccustomed work" could make them experience "the humiliation and disappointment of a breakdown" and that only Chymol could cure their exhaustion, neuralgia, anxiety and insomnia. Others feature the heading "more dangerous to be a baby in England than a soldier in France" and claim that Chymol is essential to prevent rickets, promote healthy growth and ease teething pains. This assertion is backed up by illustrations of smiling children dressed in their best party clothes and waving balloons, seemingly now healthy because of Chymol. Advertisements also place a strong emphasis on "nutrition", which not only draws upon the growing public interest in the science of healthy eating but also has a moral component, foregrounding well-being as a national responsibility (Ray, 2013, p. 396). Therefore, here, we already see Chymol's ability to frame their product as a salve to tackle the negative consequences of a national event, such as war. Whilst their claims were somewhat misleading, they were not dangerous *per se*. However, as Britain entered into an influenza pandemic, such claims could pose a genuine risk to people's health by making them believe that Chymol was a sure-fire influenza remedy (Loeb, 2005, p. 224).

During the 1918-1919 influenza pandemic

Influenza is first mentioned by Chymol in an advertisement placed in *Coventry Evening Telegraph* on 3 July 1918, one month into the first wave. After this date, an advertisement for Chymol appears every other day in at least one newspaper for the next 10 months. No longer is the War or young children mentioned; now, the advertisements have one single-minded focus: influenza. At the peak of the second wave in November 1918, Chymol produces an average of 120 advertisements a month. These advertisements stop completely in May 1919 as the third wave comes to an end. When Chymol begins advertising again in October of the same year, all references to influenza have been removed; instead, attention reverts to young

children and a new focus on anaemic women. This strategy shows how advertisers continuously shape and remarket products in response to changing customer needs and a desire to remain competitive (Doyle and Stern, 2006, p. 7).

The advertisements issued by Chymol during the pandemic indicate a "back-to-basics" approach, mimicking the heavily text-based advertisements of the early nineteenth century. This emphasis on words rather than images is a deliberate attempt to give the advertisements an air of seriousness and convince consumers that the information presented is truthful and trustworthy (Cooke, 2012). With so much conflicting advice on influenza prevention being promoted by the government and medical authorities, as well as in the popular press, Chymol aims to deal with the contradictions between ideals and realities by positioning itself as the "voice of authority", notwithstanding the fact that the product is not medicinal, nor is it prepared by medical experts (Holt, 2004, p. 8).

With their spatial position alongside news articles rather than on a dedicated advertisement page, Chymol's advertisements could easily be mistaken for factual content by readers. This framing fuses textual and paratextual information into one, thereby increasing the impact of Chymol's message (Thornton, 2009, p. 65). Their visual similarity to articles is also conveyed by the use of heavily compressed text and sensationalist, hyperbolic headings – "10,000 deaths in 9 weeks"; "more deadly than air raids"; "this influenza is fatal" – which use scaremongering to attract potential consumers. Loeb (1994, p. 7) notes oversensationalism as a common tactic of advertisers at this time, with death, in particular, used to foster panic and intensify the pressure to choose. In this way, products such as Chymol were raised to the status of "deliverer", able to liberate individuals from potentially fatal consequences and provide a nurturing, protective atmosphere of recovery (Loeb, 1994, p. 111).

By the second wave of the pandemic, it was widely known that the virus was overwhelmingly killing healthy young people rather than the elderly and infirm. Nonetheless, Chymol continued to state that the clinically vulnerable were its typical victims: "influenza attacks the weak. Keep healthy by taking Chymol". In juxtaposing these two sentences, Chymol is implying that influenza only attacks those with weakened immune systems and that its product is the best way to prevent the disease. These "before-and-after motifs" (Loeb (1994, p. 120), common in advertisements of the period, promote a quasi-evangelical ideal of a life transformed, in this case by consuming Chymol. These advertisements also draw upon the classic tropes of direct address and imperatives to call directly on consumers and place responsibility in their hands to keep safe: "everybody is getting influenza. Why? Because they are not eating the right food". Apple (2016, p. 161) has carried out extensive research on these types of statements in early twentieth-century advertising, arguing that they play upon the notion of "scientific motherhood" (i.e. that women are incapable of looking after their families without the intervention of experts) and generate a sense of guilt in consumers. In this case, the statement serves to convince consumers that if they really care about their families, they will purchase Chymol to protect them from influenza.

Chymol also frequently uses war metaphors to describe influenza: it is the "invisible enemy" who "attacks" and "threatens" people who must use their "defence mechanisms" to engage in "battle". Militarised language and illness have a long history in discourse (El Refaie, 2019) and have been used in advertising since at least the mid-nineteenth century to promote infection as a predator that will prey upon the hunted (i.e. consumers) (Loeb, 1994, p. 102). This type of language presents the brand, in this case, Chymol, as a dutiful protector. Another reoccurring feature of Chymol's advertisements, particularly towards the end of the third wave, is an emphasis on consumers to stay alert in a bid to control the virus.

Drawing again on war rhetoric, Chymol frequently warns readers not to let their guard down, reminding them that, "as there were unhappily brave men killed in the last hours before the armistice, so influenza will claim its victims even when the scourge is on the decline". The way to prevent this, of course, is to take Chymol. According to Honingsbaum (2013, pp. 176–177), these analogies between the threat of exogenous pathogens to individual bodies and the threat posed by Germany to the political and social body were common practices for advertisers in the early twentieth century. Here, by tapping into a recent and traumatic collective memory, Chymol is able to situate its product in a reciprocal relationship with the wider environment, and thus, its message is more likely to resonate with consumers (Jhally, 1990).

Despite these sensationalist tactics, some of the information presented in Chymol's advertisements shows a strong awareness of the latest scientific knowledge on diseases. Advertisements constantly refer to influenza as "influenza bacilli", in keeping with the widespread medical belief at the time that influenza was a bacteria and describe how it is transmitted by "all-pervading germs", again in accordance with the germ theory of disease prevalent in the early twentieth century (Tomes, 2010). Buzzwords that sound refreshingly modern are also used in Chymol's advertisements, particularly "superfood" and "supernutrient", which create the impression that the food has special properties making it capable of preventing influenza. As the pandemic developed and doctors found that most people were dying of secondary bacterial pneumonia rather than influenza itself, Chymol adapted its advertisements in response, informing readers that its product could also prevent pneumonia. As Church (2000, p. 624) notes, the general public may not have understood the science used in advertisements, yet they assigned the brand expert status on the grounds that it knew something that they did not. As a result, they became desensitised to considerations of price and quality, buying products in the hope that they would keep them safe without questioning the veracity of the information presented.

A prototypical Chymol advertisement

The Chymol advertisement in Figure 1 was published in two national and nine local newspapers at the height of the second wave of the influenza pandemic in November 1918. Immediately, it captures the reader's attention with its snappy headline: "influenza threatens you! Feed up with Chymol". Both "influenza" and "you" are capitalised (the latter followed by an exclamation mark), which emphasises the danger that the disease poses and turns the reader into an active agent who will make a connection between the presented problem and solution and assume that Chymol will ward off the virus. The use of imperative commands the reader rather than offering a friendly piece of advice. The strength of this command is accentuated by the heavy weight of the product name and the long flourish on the letter "y", which serves as an arrow that points to the most alarming word in the advertisement: fatal (Ledin and Machin, 2020, p. 134). This visual connection encourages readers to interpret Chymol as offering protection against mortality.

The main body of the text is filled with value-laden language, warning readers that influenza is "striking down the unfit" across "every town and hamlet" in the country. The word "unfit" implies irresponsibility and suggests that readers have the power to control the virus if they keep fit. Not only is this claim false (as we know, this strain of influenza killed healthy young people in much higher proportions), but it creates a dichotomy between the "responsible" who are prepared to look after their bodies and the "irresponsible" who are unwilling to adhere to the norms of healthiness. In this case, the norms of healthiness entail consuming Chymol. The advertisement also specifically mentions bronchitis and pneumonia as the "commonest sequels" to catching influenza (note the use of capital letters

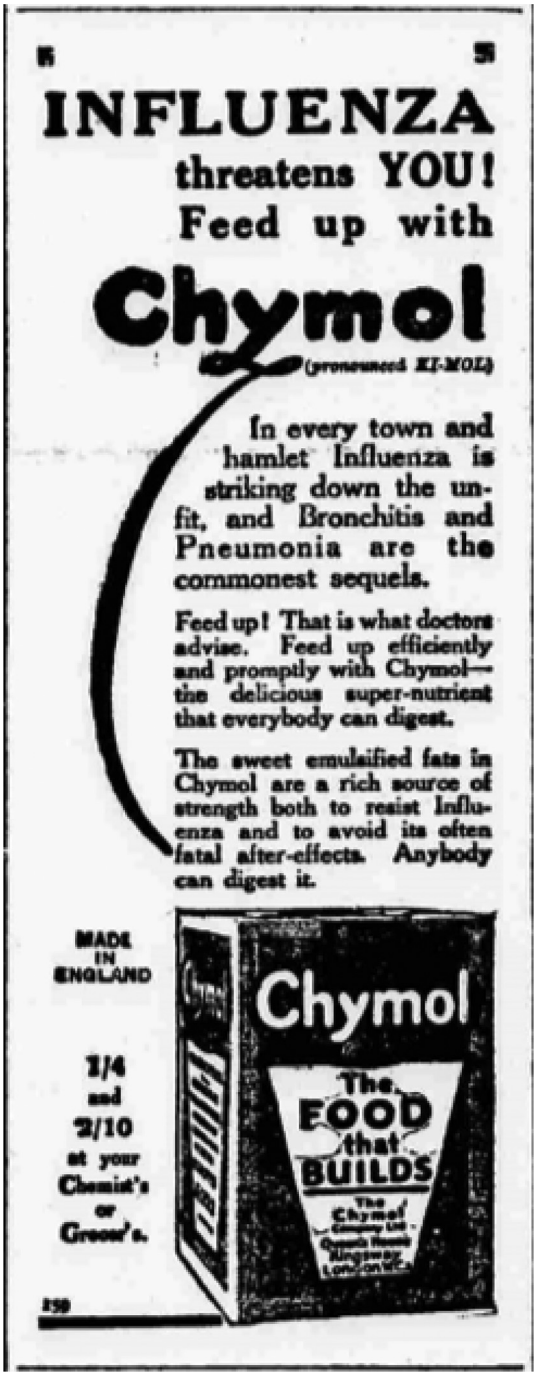

Figure 1.
Prototypical Chymol advertisement (*Yorkshire Evening Post*, 1 November 1918)

for emphasis), reflecting rapidly changing medical understanding of the virus and thereby trying to cast a net over a broader group of potential consumers who may have had influenza already but are potentially susceptible to complications. Again, Chymol offers a solution to these complications – "feed up!" – stressing that this is "what doctor's advice". Although many doctors had advised eating more nutritious foods (Martini *et al.*, 2019, p. 65), they had not specifically singled out Chymol in the treatment of influenza. Nonetheless, in including this statement in its advertisement and describing its product as a "supernutrient", Chymol signals that it is medically approved. As Loeb (2005) notes, these types of statements were problematic because some people took them at face value and chose to trust the brand rather than seek actual medical advice.

At the bottom of the advertisement is a large image of a packet of Chymol. The white brand name stands out against its contrasting black backdrop, whilst the upside-down trapezoid shape in white works in tandem with the slogan "the food that builds" to visually connote that Chymol increases strength and body weight (Ledin and Machin, 2018a, p. 99). The shape also resembles a glass, which is commonly used in packaging to symbolise transparency and honesty (Ledin and Machin, 2018a, p. 95). The fact that the tin of Chymol is hidden behind a layer of cardboard packaging signals protection but also creates an aura of mystery surrounding its actual contents (Ledin and Machin, 2018a, p. 95). The package's angular edges, regular texture and rigidity also convey stability and dependability (Ledin and Machin, 2018a, pp. 97–98). Together, these semiotic features work to communicate wider discourses of health, covertly promoting Chymol as a wonder cure for influenza.

"Fighting the Flu with Formamint"

Formamint was originally produced by the German company Wulfing and Co. and was first launched in Britain in 1907 by the subsidiary Genatosan Ltd. Upon the outbreak of World War One, Genatosan undertook legal proceedings to break ties with Wulfing and continue trading as a limited company. Formamint was a lozenge made up of formaldehyde, milk sugar, citric acid and pepsin-hydrochloric acid (The Hospital, 1907). The lozenges could be sucked once an hour throughout the day or dissolved in 10 ounces of water to make a "simple and efficient" mouthwash. According to a 1912 article in *The Hospital*, Formamint had "marked bactericidal properties" (9) and was a powerful germicide and antiseptic. Unlike Chymol, there was some scientific rationale to support these claims: laboratory tests conducted on Formamint lozenges showed that they stimulated the secretion of saliva and could destroy streptococci, pneumococci, the bacillus of typhoid and that of diphtheria within 10 minutes (The Hospital, 1907). Nonetheless, in the USA, the Council on Pharmacy and Chemistry warned that there were "grossly unwarranted claims" about Formamint's therapeutic properties and that its exploitation was, in fact, a "public danger" (Lackenbach, 1915, p. 412). Some of these dangers were made apparent in the *British Medical Journal* (1908), which reported the case of a man who had suffered severe hives, headache and vomiting after consuming Formamint and The Lancet (1911), which noted that the drug could have disastrous consequences for the teeth. This was largely because of its high concentration of formaldehyde, which was toxic and, when consumed in large quantities, could produce severe damage to the skin, eyes, respiratory system and nervous system (Zhang, 2018).

Before the 1918-1919 influenza pandemic

From its early advertisements, Formamint emphasises that it is a "germ-killing throat tablet". However, its focus is overwhelmingly on sore throats rather than influenza, caused by excessive talking, smoking and pollution, not disease. Two key figures in early Formamint advertisements (1908–1912) are Britannia and a knight who are fighting off

evil spirits who represent the dangers of sore throat. Later Formamint advertisements (1912-1916) use photographic images of stage stars to endorse its products and claim that Formamint cured their strained throats. They also include written testimonies from politicians and members of the nobility under the slogan "society sets the example". Loeb (1994, p. 99) claims that these types of advertisements elevated famous figures to heroic status, offering varieties of democratic aspiration that promised material gratification for even the humblest consumer. In this case, Formamint's choice of celebrities frames it as a product for the middle class. This middle-class audience is also catered to through images of smartly dressed men and women taking Formamint in such familiar settings as first-class train carriages, theatre boxes and department stores. Depicting healthy adults in non-domestic settings frames Formamint as a preventive treatment for sore throat rather than a reactive cure, thereby building a sense of urgency amongst consumers to take action and protect themselves from illness. From 1916 onwards, Formamint advertisements take an increasingly scientific turn, with an emphasis on "germs" and images of scientists looking at Petri dishes through microscopes. This was in line with greater understandings of how germs could survive on surfaces because of pioneering research by German scientist Dr Piorkowski. Already, there are indications of how Formamint makes use of new scientific knowledge to aim its product at health-conscious consumers. These tactics become accentuated during the 1918-1919 influenza pandemic.

During the 1918-1919 influenza pandemic

Like Chymol, influenza is first mentioned in a Formamint advertisement (1 July 1918, *Western Evening Herald*) during the first wave of the pandemic. Advertisements for Formamint then continue to be published almost every day for the next year, peaking in November 1918 with approximately 60 over a four-week period, before decreasing sharply in number after the third wave in June 1919. As to be expected, all references to sore throats are omitted from these advertisements and instead, influenza is now the central focus. It is not until after the pandemic in October 1919 that Formamint returns to its original emphasis on sore throats once again.

Whilst Chymol used large text blocks with scaremongering language to represent the dangers of influenza, Formamint relies primarily on images. The mythical creatures and celebrities of pre-pandemic advertisements are now replaced with scenes from everyday life showing busy town centres and cramped tubes full of commuters. Here, we see a clear contrast between past and present advertisements: the past images of Britannia and knights provided consumers with a sense of power and control over illness, whereas the present scenes convey vulnerability and danger. Promoting a sense of danger is essential for Formamint in making its claim that if consumers "carry Formamint in [their] pocket or handbag" and "suck a tablet whenever [they] enter a crowded germ-laden place", they will be "safe from Spanish influenza". Reading such text and images in tandem acts as a directive for consumers, convincing them that they will be able to continue going about their everyday lives with no risk of catching influenza *as long as* they take Formamint. Regardless of Formamint's medicinal properties, these highly overstated claims promote the belief that the lozenges offer a protective shield against illness in much the same way as earlier patent medicine advertisements that promised cures for everything from baldness and impotence to toothache and anaemia (Porter, 2003).

Just as in pre-pandemic advertisements, Formamint continues to use testimonies from members of the nobility to convince the public of its high reputability. However, whereas previous testimonies emphasised Formamint's preventive qualities, these testimonies hint that it also has curative properties. Quotes from Lady Manns and Lady Firbank, for

example, all assert that Formamint helped them recover from influenza and ensure that their throats had no permanent damage. Advertising manuals of the period (Stead, 1899; Tipper, 1915) advise such use of celebrity endorsements, noting that this form of "consumer storytelling" invests products with meaningful messages and helps mythologise brands. The fact that these advertisements coexist at the same time as other advertisements, which emphasise Formamint as a preventive measure (i.e. the images of congested town centres and tubes) indicates how contradictory and problematic public health messages can be, particularly when they come from commercial companies. These issues are further accentuated by supposed testimonials from doctors on Formamint's curative properties that are only signed "a physician writing in *The Lancet*". Archival research reveals that no such testimonials were written. However, as trade journals of the time regularly note (cited in Carnevali and Newton, 2013, p. 55), most consumers unconditionally believed them, particularly when they came from doctors who were viewed as voices of calm rationality with insider knowledge of these new products of the industrial age (Loeb, 1994, p. 75). Therefore, Formamint counts on readers being impressed by such claims and, consequently, purchasing its product.

Another key way that Formamint tries to convince consumers of its medicinal powers is by embedding scientific discourse within its images. Advertisements frequently show crowded lecture theatres with warnings that the "hot vitiated atmosphere" is almost certain to spread influenza unless Formamint is used as protection. On the screen in these lecture theatres are three Petri dishes labelled Figures 1–3, which, according to the text underneath, show experiments made by a leading scientist on what happens to the bacteria in the mouth when taking Formamint. In magnifying germs, Formamint seeks to emphasise their stealth and invisibility, thereby dramatising disease and imbuing the most mundane activities with danger (Loeb, 1994, p. 107). These graphic representations also imply a causal relation between Formamint and the destruction of bacteria, whilst the use of "fig" gives them academic credibility (Ledin and Machin, 2018a, p. 187), both of which are further emphasised by the description of Formamint as a disinfectant that is "the most powerful germicide in science". Embedding the results of an actual scientific experiment within its central image serves two functions, namely, it masks the advertisement as a public health message, yet in depicting an environment in which diseases spread quickly, it emphasises the necessity of Formamint to "make your throat and mouth microbe-proof".

Other advertisements show an image of three Petri dishes alongside a photograph of a hand holding a bottle of Formamint and tipping out lozenges until they form a mountain. The act of pouring plays on readers' sensory expectations and conveys transparency (Spence and Wang, 2015), whilst the growing mountain also acts as a visual representation of the verbal war rhetoric used in Formamint advertisements in similar ways to Chymol: "the best defence is attack"; "defend your body against the invading army of microbes"; "destroy them before they can harm you". The stacked pile of lozenges conjures up images of an army huddling together ready to attack an enemy, which is further underlined by the catchy, alliterative strapline "fight the flu with Formamint". Another clever feature of these advertisements is the typography: "germs" is often spelt out using the shapes of germs for sore throats, influenza, diphtheria and consumption, as identified under a microscope. The final "s" transforms into a cloud of germs connecting to a person's mouth to convey the dangers of coughing (Ledin and Machin, 2020, p. 117).

A prototypical Formamint advertisement

Figure 2 shows a Formamint advertisement that was published in November 1918 – the worst period of the influenza pandemic – in five national newspapers. Its central feature is a

Figure 2.
Prototypical Formamint advertisement (*Illustrated London News*, 9 November 1918)

large image of a crowded city centre with a group of people coughing and sneezing uncontrollably. Their bent heads, troubled eyes and hands clutched to their mouths and chests signal fear, whilst their frontal angle and close proximity indicate the danger of illness all around (Ledin and Machin, 2020, pp. 83–84). Although groups in images typically convey homogeneity and help maintain anonymity (ibid, 2020:49), here, subtle distinctions are made between group members through the choice of dress. We see working-class men in flat caps and plain coats mixed with middle-class men in homburg hats and tailored jackets, implying that high social status is not a barrier to influenza. However, paradoxically, amongst these men are smartly dressed women in furs, leather gloves and wide-brimmed straw hats, none of whom are suffering from influenza symptoms. The reason why becomes apparent when viewing the beautiful woman in the foreground who is looking over her shoulder at the crowd of sick people and furtively pulling out a bottle of Formamint to protect herself. The implication is clear: take Formamint when you are in a crowd and you will be safeguarded from influenza. Here, Formamint is not just promoting its product as a healthy food but also associating it with middle-class ideals of feminine beauty, high culture and material acquisitiveness (Loeb, 1994, p. 8). Thus, to take Formamint will prevent influenza, maintain class exclusivity and keep consumers young and beautiful.

This dichotomy created between the "responsible" woman and the "irresponsible" man is further accentuated by the strapline "why catch their Influenza?", which forms distance between the disease and Formamint's target consumers and suggests that if they catch influenza, it will be their own fault for not taking the lozenges. Thus, Formamint is tying up its product with moralistic meaning, using direct address and imperatives ("attack the germs before they attack you!") to place the onus on readers to act and protect themselves by sucking a lozenge whenever they are "in danger of being infected by other people". This

claim creates the impression that Formamint is an instant means of preventing influenza. The advertisement goes on to describe Formamint as "safe" and "certain" and warns readers that it should not be confused with so-called formalin tablets, which are not as effective. This statement frames Formamint as trustworthy, whilst also raising the alarm by implying that any competing products might be unsafe – a tactic previously used by nineteenth-century patent medicines (Loeb, 1994, p. 113). In doing so, Formamint presents itself as a figure of authority that is genuinely concerned about consumers' well-being. However, scientific studies had demonstrated that there was no difference between Formamint and other lozenges containing formaldehyde and that the only reason why Formamint was seen as more reputable than other products was because of its "fancy name" and large marketing budget, which enabled it to "bulk the advertisement columns of the public press" (Hocking, 1917). Whilst the advertisement contains one genuine quote from Dr Hopkirk about Formamint's properties, the last part has deliberately been omitted, which states that Formamint is only necessary because the State is failing to enforce large-scale preventive measures. In other words, with more nationwide campaigns on washing hands and social distancing, there would be no need for the lozenges.

Another key feature of this advertisement is an emphasis on protecting children who have "delicate little organisms" that are "very exposed to germ attack". As stated earlier, unlike previous influenza outbreaks, the 1918–1919 pandemic was more deadly for young adults than children and this was common knowledge by the time this advertisement was published. Nonetheless, Formamint plays upon the notion of "scientific motherhood" (Apple, 2016) to frame itself as a reputable product that will prevent tragedy from befalling families. Formamint also cleverly uses language and the connotative means of typeface to position itself as trustworthy: its description as a "throat tablet" imbues it with medical authority, whilst the hand-written style of the brand name connotes familiarity and authenticity (Ledin and Machin, 2020, p. 131).

"Lifebuoy Soap Saves Lives"

Unlike Chymol and Formamint, Lifebuoy Soap was launched onto the British market in response to a health epidemic. In 1894, major cholera outbreaks were identified across Victorian towns and cities. To help combat the disease and spread of infection, soap manufacturers Lever Brothers developed a carbolic soap, created by mixing the residual oils of their popular Sunlight Soap with antiseptic phenol (MacQueen, 2011, p. 90). They called it Lifebuoy because of its life-saving associations, which reinforced the role of the product in protecting against infectious diseases. Carbolic soap had a long history of medicinal use and was traditionally used by surgeons for disinfecting purposes. In introducing the soap to the general public, Lever Brothers offered an affordable and accessible way for people to safeguard themselves from illness. Lifebuoy's bright red appearance and distinctive medicinal odour gave it high credibility as a product that promoted personal hygiene and health. This was further emphasised in early promotional materials, which describe Lifebuoy as suitable for cleaning faces and hands, as well as scrubbing floors and washing clothes (Lewis, 2008, p. 81), in addition to an 1894 article in *The Hospital,* which mentions carbolic soaps as powerful germicides that could have great value for skin conditions.

Before the 1918-1919 influenza pandemic

Although Lifebuoy was launched to combat Britain's growing cholera epidemic, its early advertisements do not overtly state this. Instead, they rely largely on image to convey messages of health and well-being. A core and consistent aspect of Lifebuoy's advertisements is the mascot of a bearded captain who acts as a marker of reliability and, according to a 1910 article in *Progress*, does "more to impress the brand name on readers"

than anything else (cited in Sergeant, 2011, p. 44). The use of the captain becomes increasingly elaborate from 1894 to 1918: the initial image of the captain in a rowing boat carrying Lifebuoy soap changes to a boat full of people carrying the soap in 1905, followed by a capsized boat saved by the soap around 1910. All of these images imply that, like an actual lifebuoy, Lifebuoy soap casts a ring of protection around those who use it.

When text is used in its advertisements, Lifebuoy makes strong use of the manicule (☞) to direct readers' attention to key information about the product being an "antiseptic soap" that has the ability to "purify, cleanse and disinfect". Hasler (1953) traces the use of the manicule in advertising to as early as the sixteenth century when it was used in playbills to announce events. Around 1905, Lifebuoy introduces the slogan "makes health infectious", indicating that its soap is so effective that, just like a disease, its use will spread rapidly. Similar to Chymol and Formamint, Lifebuoy also places responsibility for health into the consumers' hands, stating that its soap is "prized by all who value a healthy home". In other words, if consumers do not buy the product, they do not care about their family's well-being. Whilst few could dispute that frequent use of soap is sound advice to keep healthy, Lifebuoy overaccentuates its capabilities, with claims that it "saves lives" and will "stop the doctor from ever having to visit". In times of pandemic, such messages can become highly problematic and risk presenting false hope to consumers.

During the 1918-1919 influenza pandemic

Up until 1918, Lifebuoy had primarily used images to promote its product and subtly suggest that it had general health benefits. However, from the beginning of the influenza pandemic in summer 1918, we see a marked change in its strategy, with influenza now being mentioned in written form across all its advertisements. Replicating similar patterns to Chymol and Formamint, advertisements for Lifebuoy peak during the second wave of the pandemic, with approximately 70 advertisements in local and national papers throughout December 1918. This number remains steady until the end of the third wave in June 1919 when it rapidly decreases; from this point on, Lifebuoy removes any references to influenza in its advertisements and instead introduces images of young children washing with the soap after playing outside.

The bearded captain remains a constant feature of the Lifebuoy advertisements throughout the pandemic, his familiar face facilitating continuity and serving to reassure consumers during a period of anxiety (Medrano-Bigas, 2015, p. 70). Nonetheless, the social space in which the captain is situated shows a marked change. No longer is he depicted at sea battling amongst choppy waves in a rowing boat, clutching Lifebuoy soap for protection. Instead, he is embedded into everyday city scenes as one of the people in a busy crowd, cramped train or lecture theatre or even as a static feature on a billboard or poster. Here, his presence acts as a protective device; now, it is not the lifebuoy itself that symbolises the ring of protection but the figure of the captain. Using the well-loved captain to channel health discourse enables Lifebuoy to play upon consumers' emotions and convince them of the product's benefits through a fictional voice.

In other Lifebuoy advertisements, the captain is standing socially distanced from another person, but they are linked together by a lifebuoy, which bears the words "saves life". Here, Lifebuoy plays upon the polysemy of the phrase, implying that just as a physical lifebuoy saves lives, so can Lifebuoy soap. In these images, the captain and the other figure (typically a middle-class housewife, elderly man or young child) are depicted from a full-frontal angle and smiling directly at the viewer. This symbolic interaction creates a visual form of address and demands that the viewer acts in a particular way, i.e. that he/she purchases Lifebuoy (Ledin and Machin, 2020, p. 81). We also see examples of the captain in a household with bouncing babies on his knee alongside the strapline "for the bonnie bairns of the brave". This alliterative, value-laden phrase links using soap with an act of heroism, further

accentuated by the later claim that children must stay healthy "for the future welfare of the empire". This statement appeals directly to mothers (the typical household shoppers), placing responsibility in their hands to protect not just their children's futures, but the future of Britain. This emphasis on mothers is also apparent in other Lifebuoy advertisements, which describe mothers as "health doctors" and suggests that they can only protect their families by purchasing Lifebuoy. Such statements are ambiguous because they frame women as responsible for keeping their families healthy, yet at the same time, incapable of this responsibility without the intervention of experts (Apple, 2016, p. 161).

Despite the use of the familiar captain to calm anxious consumers, Lifebuoy does not fully shy away from the scaremongering tactics of Chymol and Formamint. Bold headlines warn consumers that "there is danger in every crowd" and that they are facing an "influenza scourge" or "influenza peril". The language in advertisements also personifies the flu, making it appear scarier by giving it human attributes, namely, "influenza lurks [. . .]" "influenza attacks [. . .]" "influenza creeps up [. . .]". However, Lifebuoy also attempts to use this personification to emphasise its soap's protective properties: "influenza has no greater enemy than real antiseptic cleanliness". In striking parallels to World War II advertisements (Loxham, 2016), Lifebuoy is also keen to tell consumers not to give in to the dangers of influenza and keep up their daily routines: "your life must go on, you must meet, touch and talk to people, you must handle thousands of objects that have been handled by others". The repetitive triadic structure aims to situate the extraordinary nature of the pandemic into the ordinary by portraying it as just another inconvenience of everyday life (Clampin, 2014, p. 92). These words could be mistaken for an official message until they are counteracted by the suggestion that only Lifebuoy can make this continuation of normal life possible.

Another core aspect of Lifebuoy's advertisements is the use of scientific language to rationalise the use of its soap: readers are told that Lifebuoy offers "scientific protection against the dangers of dirt", "combats all germ life" and that its carbolic odour is "a sign of its protective qualities". Whilst there is some truth in these statements, they tend to be hyperbolic and offer readers little room for negotiation in forming their own opinion on the product. This is particularly the case in the claim that Lifebuoy is a "true health soap" that can "remove all dangerous grime and invisible germs" after being exposed to the danger of crowds, thus implying not only that the product is 100% effective in protecting against influenza but also that it is only required after being around other people. Just as with Formamint, Lifebuoy also embeds health messages within images of lecture theatres or school classrooms by projecting scientific graphs and charts onto a screen. In obscuring advertisements as public health messages, Lifebuoy is granted more scientific credibility and expertise. Many Lifebuoy advertisements also bombard readers with a series of buzzwords that semantically make little sense: "real and invaluable health protective virtue". According to Vincent (2014, p. 246), these types of buzzwords signpost and invite readers to move in a particular direction. Here, they are essential in building a case for Lifebuoy as a medicinal project and generating consumer interest without fully understanding its properties or benefits.

A prototypical Lifebuoy advertisement

The Lifebuoy advertisement in Figure 3 was published in nine local newspapers on 10 December 1918. Although the image and text are segregated by ruled frames, the text box intrudes into the image's space, thereby interconnecting both elements and signalling a "bleeding" of meaning (Ledin and Machin, 2020, p. 182). This defiance of compositional conventions also serves a metaphorical purpose, visually indicating that influenza spreads rapidly and cannot be contained.

Figure 3.
Prototypical Lifebuoy advertisement (*Sheffield Independent*, 10 December 1918)

The top image shows the familiar scene inside a train carriage. A group of passengers (largely middle-class women) are sitting opposite one another, holding shopping bags on their laps, whilst a conductor walks down the aisle checking tickets. The conductor has his back turned to the viewer and the passengers are depicted from an oblique angle; through these non-frontal perspectives, we are turned into observers who must scrutinise the information presented (Ledin and Machin, 2020, p. 82). Despite these figures' lack of engagement with viewers, one familiar face does stand out: the bearded fisherman. Here, he is presented as a static object on a promotional poster, yet his frontal angle, direct gaze and close proximity turn him into an active participant who addresses viewers with a look of concern (Ledin and Machin, 2018a, p. 61). The fisherman is in a symmetrical arrangement with the right-hand promotional poster, which shows a packet of Lifebuoy soap. The two images work in "rhyme" with one another, creating a seamless link between the real world (e.g. catching a train) and consumerism (purchasing Lifebuoy). The power of this message is further accentuated by the imperative "use Lifebuoy soap", which is integrated into the train's roof directly above the two Lifebuoy posters. This command works as a form of embedded marketing, which establishes Lifebuoy as a comforting feature of everyday life and turns a potentially threatening advertisement into an unthreatening decorative feature – a trait of advertising that Richards (1991, p. 134) traces back to the commodity culture that grew in Britain following the Great Exhibition of 1851. The word "Lifebuoy" also visually conveys the brand's message, its semi-circular shape evoking a protective ring (Ledin and Machin, 2018a, p. 77).

The image is captioned by the bold, underlined heading "the influenza peril". Reading the text and image together makes it clear that this seemingly innocuous image of a train carriage is, in fact, a dangerous setting for catching influenza. This heading is followed by the italicised "prevention is better than cure", which stresses the importance of using Lifebuoy *before* going to town and coming into contact with other people. This advice is in direct contrast to other Lifebuoy advertisements, which state that the soap must be used *after* returning from town and indicates how the public were exposed to conflicting public health messages from different commercial brands. The advertisement also makes heavy use of direct address to command readers on how to behave: "before you go to town [. . .]" "it will protect you [. . .]" "keeps you free from infection".

As seen in advertisements for Chymol and Formamint, Lifebuoy also creates a clear dichotomy between the responsible and irresponsible citizen by warning readers to "be a protection rather than a danger to those with whom you come into contact". That is to say, it is only by purchasing Lifebuoy that people will prevent spreading influenza to their fellow citizens. Lifebuoy also uses scientific jargon to convince consumers of its ability, emphasising that it is a "germicide" that will protect from the "germs and microbes of disease, which scientists say abound in thickly populated areas". However, no information is provided on who these scientists are, nor the doctors, nurses, wives and mothers that are mentioned later on. These endorsements are left deliberately vague to encourage readers to "fill in the gaps" and make assumptions about Lifebuoy's validity. The advertisement ends with the product name in the bold, capitalised font and the claim that it is "more than soap yet costs no more". This punchy slogan imbues Lifebuoy with a sense of mystery, presenting it to consumers as a wonder cure for influenza.

Conclusion

During the 1918-1919 influenza pandemic, the general public was barraged with conflicting advice from official and unofficial sources on how to keep safe. Artful manufacturers thrived

on this uncertainty, seeing the lack of consensus amongst doctors and politicians as a lucrative opportunity to relaunch their products under new advertising campaigns centered around offering protection against influenza. This paper has used MCDA to investigate a large body of advertisements by three leading brands of the period – Chymol, Formamint and Lifebuoy – and see how advertisers changed their marketing strategies in response to the pandemic. In particular, it has considered the lexical and semiotic choices of advertisements and how they could be used to promote, naturalise and transmit particular ideas and values about influenza.

The application of MCDA has brought to the fore the range of strategies that were mobilised by manufacturers to generate public interest in their products as essential for staving off influenza. Drawing on tried-and-tested earlier marketing practices, manufacturers used a combination of sensationalist headings, war metaphors, buzzwords, direct address, imperatives, value-laden language and responsible-irresponsible dichotomies to emphasise the urgency of acting now to protect one's family from illness. They also showcased microscopic images of germs and scenes from everyday life, such as tubes or lecture theatres, to build panic and frame influenza as an invisible and pervasive danger. However, they also cleverly used testimonials from doctors to position the brands as trustworthy and authoritative, mascots to provide a familiar, reassuring presence and positive messages to "keep calm and carry on" in order to raise morale and create a feeling of collective resilience. Additionally, they rapidly incorporated new scientific and medical knowledge into their advertisements as soon as it became available (e.g. flu as bacteria and secondary symptoms of pneumonia), further building a case for their reputability. These strategies balanced what could potentially be viewed as manipulative behaviour with practical support and expert advice.

Yet, MCDA has also uncovered contradictions and misinformation that existed across brands and sometimes even within advertisements by the same brand. Chymol, for example, promoted its product as protecting the clinically vulnerable, despite knowing that influenza primarily affected healthy young people, whilst Lifebuoy frequently flipflopped between advising hands only be washed *before* and washed *after* being around other people. Equally, Formamint promoted itself as both a preventive and curative measure at the same time and knowingly falsified testimonials or only included parts of genuine quotes that would suit its arguments. Furthermore, all three brands boldly stated that their products guaranteed 100% protection against influenza, yet in all cases, once the pandemic ended, any references to influenza disappeared from their advertisements. These dubious practices were facilitated by the lack of stringent legislation around misleading claims in advertising at this time.

Doctors denounced the commercialisation of public health as a principle, with the Royal College of Physicians declaring in 1918 that no commercial product had "yet been proved to have any specific curative effect on influenza" (cited in Loeb, 2005, p. 210). They argued that by putting their faith in these products, some consumers failed to seek professional advice until it was too late (ibid, 224). Thus, these products stand as a disquieting example of how anxious consumers can conflate commercial messages with public health messages during a pandemic and unquestionably accept their messages, believing that they will offer them a protective "halo" against illness.

Looking back from what we now know about the 1918–1919 influenza pandemic, these marketing strategies may immediately seem deceitful. However, our own recent experiences of COVID-19 show that, in times of national crisis when tensions run high, people are more likely to act on emotional impulses than common sense when purchasing products. Furthermore, when exposed to an oversaturation of information from a range of sources, people also feel increasingly unsure of who to trust. This is particularly the case when there

is a new danger (whether COVID-19 or influenza) and scientific knowledge and entrepreneurial opportunities are moving at the same pace. Thus, the current study posits MCDA as an important methodology to be introduced to both historical research on marketing and public health communication as it places communication in a broader societal context, explores how it is shaped by and shapes discourses that circulate in a society at a given time and fosters a critical reflection on how the power of semiotics can be harnessed to construct certain discourses of truth.

Beyond an historical context, MCDA also has important implications for contemporary understandings of marketing and public health communication. Gaining an awareness of how susceptible consumers were to commercial advertising messages during the 1918–1919 influenza pandemic offers us distance from our current experiences of living in a pandemic, and thus, more room to develop a critical stance and reflect on the information we receive today, whether about vaccines, masks or social distancing. Exploring the ways in which unofficial sources with vested interests influenced public perceptions of influenza makes us aware that many of these strategies are still used (e.g. scaremongering and false testimonials) and are even more problematic today due to social media and its rapid spread of misinformation by non-experts. By understanding the sociohistorical antecedents of public health communication, whether from official or unofficial sources, we can become empowered against such misinformation and stop a health pandemic turning into a health infodemic.

Notes

1. It was not until 1933 that the National Institute of Medical Research in London discovered that influenza was a virus, not a bacteria and that it was caused by subtype H1N1 A.
2. "Spanish flu" did not actually originate in Spain. The name was chosen as wartime censors minimised reports of illness and mortality in the UK, US, Germany and France to maintain morale. As Spain was neutral, its papers reported widely on the virus, creating the impression that the country was at the centre of the pandemic.
3. To make the analysis manageable, 50 advertisements were looked at for each year from the brand's initial release to the beginning of the pandemic in June 1918: 100 for Chymol (launched in 1916), 550 for Formamint (launched in 1907) and 1,200 for Lifebuoy (launched in 1894).
4. Further details on these advertisements can be found in the Appendix.

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Appendix

Chymol			
1.	*Derby Daily Telegraph*	11 July 1918	pg. 2
2.	*Coventry Evening Telegraph*	11 July 1918	pg. 4
3.	*Sheffield Evening Telegraph*	16 July 1918	pg. 3
4.	*Birmingham Daily Gazette*	16 July 1918	pg. 4
5.	*Yorkshire Evening Post*	18 July 1918	pg. 3
6.	*Walsall Observer and South Staffordshire Chronicle*	27 July 1917	pg. 5
7.	*Beeston Gazette and Echo*	3 August 1918	pg. 3
8.	*Coventry Herald*	3 August 1918	pg. 9
9.	*Dudley Chronicle*	10 August 1918	pg. 3
10.	*Nottingham Evening Post*	20 August 1918	pg. 4
11.	*Beeston Gazette and Echo*	5 October 1918	pg. 3
12.	*Sheffield Evening Telegraph*	22 October 1918	pg. 3
13.	*Liverpool Echo*	25 October 1918	pg. 2
14.	*Western Mail*	30 October 1918	pg. 4
15.	*Western Daily Press*	30 October 1918	pg. 2
16.	*Sheffield Evening Telegraph*	30 October 1918	pg. 3
17.	*Yorkshire Evening Post*	1 November 1918	pg. 3
18.	*Manchester Evening News*	4 November 1918	pg. 2
19.	*Western Daily Press*	6 November 1918	pg. 3
20.	*Bath Chronicle and Weekly Gazette*	9 November 1918	pg. 6
21.	*Sheffield Independent*	12 November 1918	pg. 7
22.	*Western Mail*	14 November 1918	pg. 2
23.	*Sheffield Evening Telegraph*	29 November 1918	pg. 2
24.	*Sheffield Evening Telegraph*	4 December 1918	pg. 4
25.	*Staffordshire Sentinel*	27 December 1918	pg. 2
26.	*Manchester Evening News*	15 January 1919	pg. 2
27.	*Sheffield Evening Telegraph*	17 January 1919	pg. 5
28.	*Western Daily Press*	17 January 1919	pg. 2
29.	*Manchester Evening News*	3 February 1919	pg. 2
30.	*Western Daily Press*	5 February 1919	pg. 4
31.	*Western Mail*	14 February 1919	pg. 3
32.	*Sheffield Evening Telegraph*	4 March 1919	pg. 6
33.	*Staffordshire Sentinel*	11 March 1919	pg. 6
34.	*Yorkshire Evening Post*	12 March 1919	pg. 4
35.	*Lancashire Evening Post*	12 March 1919	pg. 1
36.	*Manchester Evening News*	12 March 1919	pg. 2
37.	*Coventry Evening Telegraph*	12 March 1919	pg. 2
38.	*Yorkshire Evening Post*	18 March 1919	pg. 4
39.	*Sheffield Evening Telegraph*	4 April 1919	pg. 6
40.	*Staffordshire Sentinel*	10 April 1919	pg. 6
Formamint			
41.	*Western Evening Herald*	1 July 1918	pg. 3
42.	*Nottingham Journal*	1 July 1918	pg. 4
43.	*Daily Record*	1 July 1918	pg. 2
44.	*Pall Mall Gazette*	2 July 1918	pg. 7
45.	*Daily Record*	10 July 1918	pg. 10
46.	*Birmingham Mail*	11 July 1918	pg. 5
47.	*Belfast Telegraph*	12 August 1918	pg. 4
48.	*Lincolnshire Echo*	13 August 1918	pg. 4
49.	*The Scotsman*	13 August 1918	pg. 2
50.	*Freeman's Journal*	14 August 1918	pg. 4

(*continued*)

Table A1. Advertisements for Chymol, formamint and lifebuoy

51.	*Dundee Evening Telegraph*	16 August 1918	pg. 6
52.	*Merthyr Express*	17 August 1918	pg. 2
53.	*Illustrated London News*	7 September 1918	pg. 22
54.	*Nottingham Journal*	23 September 1918	pg. 3
55.	*The Sketch*	16 October 1918	pg. 39
56.	*Sheffield Independent*	21 October 1918	pg. 3
57.	*Derby Daily Telegraph*	28 October 1918	pg. 4
58.	*Illustrated London News*	9 November 1918	pg. 25
59.	*Nottingham Journal*	12 November 1918	pg. 2
60.	*Irish Independent*	14 November 1918	pg. 1
61.	*Dundee Courier*	27 November 1918	pg. 4
62.	*Belper News*	29 November 1918	pg. 4
63.	*Lancashire Evening Post*	2 December 1918	pg. 6
64.	*West Sussex Gazette*	5 December 1918	pg. 5
65.	*Birmingham Daily Gazette*	5 December 1918	pg. 3
66.	*Pontypridd Observer*	7 December 1918	pg. 4
67.	*The Sphere*	7 December 1918	pg. 27
68.	*Belfast News-Letter*	20 December 1918	pg. 3
69.	*Dundee Evening Telegraph*	23 December 1918	pg. 6
70.	*Merthyr Express*	18 January 1919	pg. 10
71.	*Illustrated London News*	22 February 1919	pg. 25
72.	*Dundee Courier*	24 February 1919	pg. 2
73.	*Cornishman*	12 March 1919	pg. 6
74.	*Sheffield Independent*	17 March 1919	pg. 7
75.	*Leeds Mercury*	17 March 1919	pg. 10
76.	*The Sketch*	19 March 1919	pg. 51
77.	*Birmingham Daily Gazette*	20 March 1919	pg. 8
78.	*Dundee Courier*	24 March 1919	pg. 2
79.	*Dundee Evening Telegraph*	15 April 1919	pg. 6
80.	*Yorkshire Evening Post*	25 April 1919	pg. 8
Lifebuoy			
81.	*Derby Daily Telegraph*	27 November 1918	pg. 4
82.	*Birmingham Daily Gazette*	28 November 1918	pg. 2
83.	*Hull Daily Mail*	28 November 1918	pg. 3
84.	*Western Evening Herald*	28 November 1918	pg. 4
85.	*Aberdeen Evening Express*	29 November 1918	pg. 5
86.	*Nottingham Journal*	29 November 1918	pg. 4
87.	*Northampton Chronicle and Echo*	30 November 1918	pg. 6
88.	*Hartlepool Northern Daily Mail*	3 December 1918	pg. 3
89.	*Evening Despatch*	3 December 1918	pg. 4
90.	*Daily Gazette for Middlesbrough*	3 December 1918	pg. 6
91.	*Derby Daily Telegraph*	6 December 1918	pg. 6
92.	*Sheffield Independent*	10 December 1918	pg. 7
93.	*Northampton Chronicle and Echo*	10 December 1918	pg. 6
94.	*Hull Daily Mail*	10 December 1918	pg. 3
95.	*Birmingham Daily Gazette*	23 December 1918	pg. 6
96.	*Derby Daily Telegraph*	24 December 1918	pg. 4
97.	*Sheffield Independent*	24 December 1918	pg. 7
98.	*Aberdeen Evening Express*	24 December 1918	pg. 5
99.	*Northampton Chronicle and Echo*	1 January 1919	pg. 2
100.	*Yorkshire Evening Post*	2 January 1919	pg. 2
101.	*Western Evening Herald*	17 January 1919	pg. 4
102.	*Derby Daily Telegraph*	21 January 1919	pg. 4

(*continued*)

Table A1.

103.	*Nottingham Journal*	21 January 1919	pg. 4
104.	*Coventry Standard*	14 February 1919	pg. 2
105.	*Wicklow People*	15 February 1919	pg. 2
106.	*Bury Free Press*	15 February 1919	pg. 6
107.	*Hastings and St Leonards Observer*	15 February 1919	pg. 2
108.	*Londonderry Sentinel*	22 February 1919	pg. 4
109.	*Belfast News-Letter*	12 March 1919	pg. 7
110.	*Dundee People's Journal*	15 March 1919	pg. 14
111.	*Arbroath Herald and Advertiser for Montrose Burghs*	21 March 1919	pg. 5
112.	*Hampshire Telegraph*	21 March 1919	pg. 8
113.	*Yorkshire Post and Leeds Intelligencer*	26 March 1919	pg. 5
114.	*Dover Express*	28 March 1919	pg. 7
115.	*Northampton Mercury*	28 March 1919	pg. 10
116.	*Derby Daily Telegraph*	1 April 1919	pg. 4
117.	*Runcorn Weekly News*	17 April 1919	pg. 7
118.	*Derbyshire Advertiser and Journal*	26 April 1919	pg. 3
119.	*Western Gazette*	2 May 1919	pg. 8
120.	*Jedburgh Gazette*	9 May 1919	pg. 1

Table A1.

About the author

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