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**Science & Technology in childhood Obesity Policy**



Science and Technology in  
childhood Obesity Policy

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**D5.2: Case Study Report**

**Creating Demand for Healthier Behaviour**

**An Innovative Approach to Social Marketing for Public Health Campaigns**

Author(s): Karen E. Watson, HEC

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Abbreviation	Definition
PHA	Partnership for a Healthier America
SSB	sugar sweetened beverages
IOM	Institute of Medicine
FLOTUS	First Lady of the United States
CDC	Centers for Disease Control and Prevention
EPA	Environmental Protection Agency
NGOs	non-governmental organizations
NNF	Nielsen NeuroFocus
PSA	public service announcements
UPC	universal product code
CPG	consumer packaged goods
NCS	Nielsen Catalina Solutions
ROAS	return on advertising spend
RMS	Nielsen's retail measurement
DWGP	Danish Whole Grain Partnership
NIH	The National Institutes of Health (USA)
DVFA	Danish Veterinary and Food Administration
DTU	Danish Technical University
FDA	Food and Drug Administration (USA)

**Dissemination Level**

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## Table of contents

<b>1. Background to Case Studies 1 and 2 .....</b>	<b>6</b>
<b>2. Purpose of Case Study 1 .....</b>	<b>6</b>
<b>3. Executive Summary .....</b>	<b>6</b>
<b>4. Introduction to the “Drink Up” Campaign .....</b>	<b>7</b>
<b>5. Summary of Elements of the Drink Up Campaign .....</b>	<b>10</b>
5.1 The inspiration and public health need .....	10
5.2 Conceptual framework .....	10
5.3 Market overview .....	12
5.4 Messaging .....	12
5.5 Multi-stakeholder activation .....	12
5.6 Measurement plan .....	12
<b>6. Pre-Campaign Activities and Methodologies for Each Activity .....</b>	<b>14</b>
6.1 Strategy: Understanding general market trends for the SSB and water categories .....	14
6.2 Methodology overview .....	18
6.2.1 Identifying the target audience .....	18
6.2.2 Locating the target audience geographically .....	21
6.2.3 Understanding what media reaches the target audience .....	23
<b>7. Designing the Creative Visual Elements of the Message .....</b>	<b>25</b>
7.1 Creating and testing the campaign message .....	26
7.1.1 Using the tools of neuromarketing .....	26
7.1.2 Creating the brand guidelines for discipline and uniformity .....	33
<b>8. Defining Measurements for Reach, Resonance, and Reaction of the Audience .</b>	<b>35</b>
8.1 Media measurement methods .....	36
8.1.1 Television media measurement .....	36
8.1.2 Online media measurement .....	36
8.1.3 Social media exposure and search patterns .....	37
8.1.4 Digital out-of-home (DOOH) .....	37
8.1.5 Understanding reaction through purchase behaviour patterns .....	37
<b>9. Multi-stakeholder activation .....</b>	<b>41</b>
9.1 An aside about product placement: The role of cultural influencers in modelling norms ....	41
<b>10. Execution and Launch of the Campaign .....</b>	<b>47</b>



<b>11. Campaign results</b>	<b>50</b>
11.1 Television reach combined with social media	50
11.2 Online advertising: Reach and frequency	53
11.3 Online Resonance	58
11.4 Cost-effective paid media: On location, traditional and digital advertising, donated media	70
11.5 Measuring impact: In-store sales measurement as a proxy for changed behaviour	74
11.6 Improvements as a result of research findings	79
<b>12. Limitations</b>	<b>80</b>
<b>13. Conclusion: Observations and Insights for Public Health Practitioners</b>	<b>81</b>
<b>14. Appendixes and Slides</b>	<b>84</b>
14.1 Water Messaging	84
14.2 Localization	84
14.2.1 Drink Up, Los Angeles	84
14.2.2 Drink Up, Philadelphia	88
14.3 Supplemental slides	90
<b>15. Purpose of Case Study 2</b>	<b>95</b>
<b>16. Executive Summary</b>	<b>95</b>
<b>17. Introduction</b>	<b>96</b>
<b>18. Establishing the Danish Whole Grain Partnership</b>	<b>96</b>
14.4 Organization of the Partnership	97
14.5 Objectives and strategy to achieve these	97
14.6 Defined roles and responsibilities for each partner	98
14.7 Ensuring a unified approach	100
<b>19. Scientific background</b>	<b>101</b>
14.8 Ensuring a scientific basis	102
14.9 Establishing a baseline	103
<b>20. Creating the campaign</b>	<b>103</b>
14.10 Engagement with/from manufacturers and vendors	103
14.11 Generating supply ahead of demand	104
14.12 Raising consumer awareness	105
14.13 Developing 'a taste' for whole grains: Silent reformulation	106
<b>21. Launching the campaign</b>	<b>106</b>
14.14 On-the-ground/on-the-street marketing	106
14.15 Traditional media marketing	106
14.16 Social media marketing	107



<b>22. Measuring reach .....</b>	<b>107</b>
<b>23. Measuring effects .....</b>	<b>108</b>
14.17 Economic consumption: Increase in sales of products with the logo.....	108
14.18 Nutritional intake: Measuring against the baseline.....	109
14.19 Increased whole grains consumption among Danish population.....	109
<b>24. Comparison to whole grains consumption trends elsewhere in Europe.....</b>	<b>109</b>
14.20 Intakes in various countries .....	110
14.21 Recent trends in whole grains intakes .....	112
<b>25. Learnings, conclusions, and recommendations .....</b>	<b>112</b>
14.22 Challenges.....	113
14.23 Recommendations.....	113
14.24 Learnings and conclusions .....	114
<b>26. Acknowledgement .....</b>	<b>114</b>
<b>27. References.....</b>	<b>115</b>



## 1. Background to Case Studies 1 and 2

The primary focus of the Science and Technology in childhood Obesity Policy, or STOP project, is on the cumulative impacts of multiple and synergistic exposures in vulnerable and socially disadvantaged children and their families, which makes them a priority target for the fight against childhood obesity in Europe. STOP aims to create the conditions to progress from evidence, to policy, to impacts on the ground. Work Package 5 of the STOP project, “Creating Demand for Healthier Behaviour”, is intended to provide governments with the knowledge and the tools required to lead multi-stakeholder initiatives promoting healthy behaviours to combat and prevent obesity in children. This is to be achieved through the use of social marketing campaigns based on advanced marketing approaches and insights from behavioural research. In line with these objectives, Deliverable 5.2 of this package presents two case studies. Case Study 1 is on “Drink Up”, a prominent, innovative and successful example from the USA of public health social marketing, aimed at promoting water as the drink of choice. Case Study 2 is on the Danish Whole Grain Partnership, a campaign whose main objective was to promote the consumption of whole grains among the population in Denmark. In each case study, the public health problem is specified; the campaign to address the problem is then described, starting with the conceptual framework, socio-economic context, and preparatory research; the methodology and design of the campaign are presented; data collection and measurement is described, and results are discussed. The conclusion of each case study draws lessons and implications for transferring the learnings from that campaign—its shortcomings as well as its successes—to other public health campaigns, and in particular to the STOP project.

### 2. Purpose of Case Study 1

- To provide governments with an understanding of and insight into how the Drink Up campaign deployed knowledge gleaned from data, academic research, government policy, the retail marketplace, and culture to create and lead a multi-stakeholder initiative promoting healthy behaviours through the use of social marketing campaigns.
- To assess how those campaigns impacted the populations they targeted and provide recommendations to policy makers for how they can transfer the lessons learned from those campaigns to the STOP project: specifically, in their work with local populations and countries throughout the European Union.

### 3. Executive Summary

The goal of the Drink Up campaign was to deliver a clear, actionable, and positive message to shift the population to a healthier behaviour. Market research indicated a trend away from carbonated sweetened drinks, towards the purchase of water. This trend intersected with health research implicating drinking sugar-sweetened beverages as the largest contributor to obesity in the United States, and the impact on children in particular was concerning. The strategy was to generate enough earned media to elevate the chance that most Americans would be aware of the campaign by its inaugural week. Multiple stakeholders were enlisted to join in the campaign. All participants were recruited for their ability to resonate with the target segment and influence its cultural norms.

Understanding marketplace purchase patterns regarding beverages, and more importantly what was motivating these consumers—would be key to discovering how to motivate change. This required insights on consumer attitudes about their health: a psychographic segmentation on which observed



purchase behaviour and media behaviour patterns could be superimposed. Such granular data would inform the campaign's messaging. Creative taglines and concepts were tested for neurological effectiveness. The messages that tested positively were used to develop creative advertising copy for the official campaign website, a campaign logo, and a variety of Public Service Announcements (PSAs). Corporations, non-governmental organizations, foundations, and celebrities and sports figures all worked to amplify the message of the campaign for the public good.

The consumption of tap water would be difficult to measure, so quantitative measurement of the impact of the campaign used sales of bottled water as a proxy for changed water consumption patterns overall. To measure exposure to the campaign, Nielsen provided data on audience demographics, reach, and frequency for those exposed to the TV campaign, the online campaign, and both platforms combined; Digital and place-based media were also measured. The outcomes were measurable increases in bottled water consumption: a 3% increase among the test group representing the segments of the population tested, and a 4% increase in the segment with the lowest socioeconomic status.

#### 4. Introduction to the “Drink Up” Campaign

‘Drink Up’ is a social marketing campaign launched in 2013 by the Partnership for a Healthier America (PHA)<sup>1</sup> and the Obama White House to encourage Americans to drink more water. Sugar sweetened beverages (SSB), defined as any liquids that are sweetened with various forms of added sugars like brown sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high-fructose corn syrup, honey, lactose, malt syrup, maltose, molasses, raw sugar, and sucrose, are a major contributor to obesity in the American diet.<sup>2</sup> The Drink Up campaign was designed to encourage Americans to replace SSBs with water.

By way of background, the Drink Up campaign was a proof-of-concept on the cost–benefit value of using commercial marketing techniques, combined with commonly used communications campaign techniques, to entice specific audiences to want to change their behaviours to improve their health. The campaign aimed to be seamless to the audience in relation to how it experienced the “feel” of everyday commercial exposure. Because the effort involved an **audience-centric** approach, it was important to attract multiple stakeholders, including commercial and cultural influencers, to join the effort. Stakeholders were attracted because of the demonstrable and concrete measurements of success (or failure) and the transparency in the findings to all involved. The campaign was launched in the fall of 2013 and continues today. It took place against a backdrop of a severe and growing public need to address the rising rates of obesity in the United States (i.e., obesity rates had risen to 27.1% in 2013; see <http://www.ncsl.org/research/health/obesity-statistics-in-the-united-states.aspx>) and the consequences of this chronic disease epidemic on many aspects of American society. The shifting marketplace and regulatory pressures to address the burden of obesity were not lost on the campaign creators, and many of the stakeholders of the campaign had, and continue to have, an active role in addressing the need for global change in health behaviours.

The guiding principle of the campaign derived from the observation that much of public health communications and the messages created for such communications rely heavily on a methodology that utilizes focus groups as a representation of how and what an audience perceives is actually

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<sup>1</sup> Partnership for a Healthier America (PHA) is a non-profit organization dedicated to improving the health of children and addressing childhood obesity in the United States; PHA's approach is to engage industry in this mission.

<sup>2</sup> U.S. Department of Agriculture, U.S. Department of Health and Human Services. (2015). *Dietary Guidelines for Americans, 2015-2020* (8<sup>th</sup> ed.). Washington, DC: U.S. Government Printing Office.



being communicated to them. Focus group research aims to understand the *conscious* expression of how people might be encouraged to change their behaviour, and then generally deploys a loss-framed, as opposed to a gain-framed message to the target audience. In contrast, commercial marketing generally operates on the assumption that most of a consumer's decisions are *unconscious* and motivated by a gain-framed message that positions the benefits of a behaviour and provides information regarding specific, actionable measures that a consumer can take to achieve that gain. Many public health awareness campaigns are created by advertising agencies trying to affect market behaviour, but rarely have they had the benefit of understanding the market research data that can be used to gain insight into the nuanced differences between segments of the population and where they live. Public health campaign creators, often working with limited resources, also deploy a message that, once determined, remains static, whether it makes an impact on the public health issue or not. This flaw is compounded by the fact that many of these campaigns are also devoid of measures of success, and any measures that do exist are often anecdotal.

The Drink Up campaign provides an innovative approach to addressing the problem of obesity and was conceptualized and directed by the author of this report. Its execution increased public health awareness because it aspired to “create demand for health” in the same way that marketing aspires to create a desire for products in everyday commerce. In this report, we propose that it is a model campaign that can be applied for the use of social marketing in other arenas of public health messaging. We provide an executive summary of the Drink Up campaign including its inspiration and the need for public health. Highlighted will be the efforts undertaken to: (1) develop the messages of the campaign; (2) identify the target audiences; (3) identify the methodologies and analysis plan needed to evaluate the efficacy of a campaign in populations; and (4) form collaborations/partnerships with major stakeholders which include health and government agencies, trade organizations, the food and beverage industry, philanthropy groups, celebrities, and civic-minded citizens, to ensure the messaging was consistent in supporting the campaign. We provide examples of obstacles to its execution as well as unexpected opportunities that were facilitated by our established collaborations.

Finally, we highlight major insights derived and outcomes achieved during the first four years of the campaign. We look at some the collaborations that resulted. We detail the exposure of and reaction to the campaign of audiences who viewed it on television, online, or via traditional as well as electronic video billboards in what is known as “on location media.” We review how it was received on social media networks such as Twitter and Instagram. Those insights and outcomes include:

- In the first year of the campaign, a three percent increase in the purchase of bottled water among the test group representing the segments of the population tested.
- A four percent increase in the purchase of bottled water in the segment with the lowest socioeconomic status.
- The recruitment and participation of a broad, and more importantly, diverse group of stakeholders involved in the campaign.
- The use of data analytics to understand whether to iterate an advertising campaign's creative materials in order to make them more memorable and more engaging.
- The variability in cost for reaching audience segments with a public health advertising campaign.





- The degree to which communications mediums reinforce one another, and the surprising impact of the relatively inexpensive place-based advertising on reinforcing and creating awareness of the message.
- The important role that cultural influencers can play in integrating the message into music, visual arts, and video.
- The degree to which a message should be crafted for its ability to resonate with unconscious behaviours, especially when that behaviour is frequent and often automatic, as is the case with food and nutrition-related behaviour.
- The roles that visual imagery and manufacturers of food products play in reinforcing a message to trigger memory at the point of purchase.



## 5. Summary of Elements of the Drink Up Campaign

### 5.1 The inspiration and public health need

A key challenge in any marketing or communications campaign is how to break through the crowded, complex information landscape facing consumers in their daily lives. The environment is filled with different and often contradictory messages from the public and private sectors. Thus, the public experience with information is that it is often unreliable and confusing. The central goal of the Drink Up campaign was to cut through the ‘noise’ and clutter in order to deliver a clear, impactful, actionable, and positive message to shift the population toward a healthier behaviour. The research indicated an accelerating trend in the marketplace away from carbonated sweetened beverages and toward the purchase of water. The marketplace trend intersected well with the health research suggesting that drinking sugar-sweetened beverages was the single biggest contributor to obesity in the United States and that the impact on children in particular was concerning.

The **Drink Up** campaign, officially known as the **Water: You Are What You Drink** campaign, was a national marketing campaign launched in September 2013, and its impact was assessed by tracking the purchase of bottled water through 2016. The campaign, spearheaded by PHA in collaboration with the Obama White House during its second term, was based on recommendations by the Institute of Medicine (IOM) (affiliated with the National Academies of Science) that individuals’ daily water intake is key for the maintenance of health and prevention of chronic disease.<sup>3</sup> The objective of the campaign was to encourage the American public to drink more water, more often—whether from the tap or bottled. The Government and Public Sector division of Nielsen, a global market research firm based in the United States, and several other organizations brought in by Nielsen as collaborators to supplement its own data, provided significant thought leadership and intellectual capital for the project. The work was deeply informed by Nielsen’s market research data, measurement science, and insights into consumer’s media and buying behaviour.

### 5.2 Conceptual framework

The strategy had multiple components. The goal was to rely primarily on earned media but also on a substantial amount of ‘advertising’ space, donated by a combination of industry, retailers and manufacturers. The centre of the campaign would revolve around the substantial popularity of Mrs. Michelle Obama, the wife of President Obama and the First Lady of the United States (FLOTUS) and her Let’s Move agenda. The Drink Up campaign’s work with PHA was a significant programmatic aspect of that agenda. Mrs. Obama had tremendous popularity and significant influence; her credibility and her reputation as an advocate for healthy habits would be an important association for many segments of the population that the team was seeking to target.

Because the campaign was being waged almost exclusively with pro-bono materials, the earned media contribution to the campaign would be a critically important way for the message to get out to the public. Earned media, also known as free media, is the opposite of paid media; it has been defined as “publicity gained through promotional efforts.” Forbes has described earned media as “content

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<sup>3</sup> <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=10925>



that mentions a brand created by people who aren't paid by that brand, such as journalists, individual influencers and regular consumers.”<sup>4</sup>

The client strategy was to generate enough earned media over a concentrated period of time, to elevate the chance that most Americans would have an awareness of the campaign in its inaugural week. PHA had worked with retail participants in the campaign including bottled water producers, water filter manufacturers, refillable bottle manufacturers, and restaurants—large and small, to ensure that the Drink Up logo was going appear in multiple retail venues where the visual would reinforce the marketplace messaging.

All participants were recruited for their ability to resonate with the target segment and influence their cultural norms. To this end, the Global Philanthropy Group secured the participation of celebrities from the entertainment and sports sectors. Several celebrities engaged with the campaign by either attending the launch event or participating via social media. The fashion industry also played an important role in the campaign: J. Crew designed limited edition T-shirts featuring creative interpretations of the official campaign logo and tagline. A “cast” of celebrities, graphic artists, sports figures, and others created songs, videos, and art to advance the campaign message.

The campaign also included a **local activation strategy** to actively involve local elected officials and align their local public health initiatives with the objectives of the national campaign, especially in those municipalities where a disproportionately high number of people fall into the campaign’s target segments. Nielsen supported this effort by providing comprehensive consumer profiles, including media consumption and shopping behaviours reported at the DMA,<sup>5</sup> county, and zip code (postal code) levels. Several U.S. federal agencies also came to the table, including the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA) to address issues of water safety, access, and consumption rates.

The team aimed to construct a campaign with all of the sophisticated techniques used by modern-day advertising, and perhaps to devise innovative new methods as well. This meant implementing the entire marketing lifecycle: research of the marketplace, research of the target audience, and research of the message to which the audience would respond. Then, it would follow up by working with other stakeholders of the campaign to place the message in both earned and paid media (these terms are explained later). Most importantly, it would have a brand identity in the places where people shop and consume water: grocery stores and restaurants.

Establishing, implementing, and then reporting the metrics of success of the campaign would be key to providing demonstrable value to multiple participants in the campaign and in convincing them to undertake the work of the project. The ability of the campaign’s sponsors to recruit representatives from so many sectors of society was a unique aspect of the campaign and was driven largely by the personal popularity and power of Mrs. Obama and her ability to generate the sheer good will of multiple others to ally themselves with the cause of the campaign. Corporations would join with government, non-governmental organizations (NGOs), foundations, and celebrities in order to amplify the message of the campaign for the public good.

The Government and Public Sector division of Nielsen, along with several other organizations brought in by Nielsen as collaborators to supplement its own data, provided significant thought

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<sup>4</sup> [https://en.wikipedia.org/wiki/Earned\\_media](https://en.wikipedia.org/wiki/Earned_media); <https://www.forbes.com/sites/forbescommunicationscouncil/2018/04/17/earned-media-is-part-of-the-customer-experience/#6d0b67507f4d>

<sup>5</sup> Every postal code also falls within a county, and every county is within a Designated Market Area (DMA.) DMAs in the United States are the 122 broadcast media markets defining discreet television and radio broadcast licenses awarded by the Federal Communications Commission (FCC), the federal body regulating the nation’s broadcast spectrum.



leadership and intellectual capital for the project. The work was deeply informed by Nielsen's market research data, measurement science, and insights into consumer's media and buying behaviour.

The research team at Nielsen agreed that the most effective way to approach the campaign was to help the client understand how to communicate, approach, and affect the market from the perspective of the consumer. In marketing terms this is known as the consumerization of the product: that is, reorienting the design so as to emphasize the individual consumer who is the end user.

### **5.3 Market overview**

An overview of general trends in marketplace purchasing patterns was the initial step in the process. Understanding purchase patterns, who was buying what and where and more importantly what was motivating these consumers would be key to understand how change might be motivated. This required a view of consumer attitudes toward their health; a psychographic segmentation on which observed purchase behaviour and media behaviour patterns could be superimposed. With segmentation and attenuating behavioural data in hand, messages that might influence behaviour change were developed.

### **5.4 Messaging**

An ad agency developed a thesis about multiple messages that might convince an audience to change its behaviour. Once creative taglines and concepts were developed for the campaign, Nielsen NeuroFocus (NNF)<sup>6</sup> tested them for neurological effectiveness—the simultaneous, subconscious activation of attention, memory, and emotional response mechanisms in the brain. The recommendations derived from the testing of the NNF team were that the campaign should: a) develop a general framing that is positive and relatable; b) avoid negative examples or comparisons, however minimal; and c) bring the message to the consumer and her personal choices. These guidelines, as well as the taglines and other statements that tested positively, were used to develop creative advertising copy for the official campaign website, a campaign logo for water bottles and other products, and a variety of Public Service Announcements (PSAs) for television and digital out-of-home (DOOH) screens featuring the First Lady of the United States as well as celebrities and cultural influencers recruited for the campaign.

### **5.5 Multi-stakeholder activation**

Multiple stakeholders were enlisted to join in the campaign. Corporations, non-governmental organizations (NGOs), foundations, and celebrities and sports figures all worked to amplify the message of the campaign for the public good.

### **5.6 Measurement plan**

Establishing, implementing, and then reporting the metrics of success of the campaign would be key to providing demonstrable value to multiple participants in the campaign and in convincing them to undertake the work of the project. The ability of the campaign's sponsors to recruit representatives from so many sectors of society was a unique aspect of the campaign and was driven largely by the personal popularity and power of Mrs. Obama and her ability to generate the sheer good will of multiple others to ally themselves with the cause of the campaign.

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<sup>6</sup> As a market research company Nielsen added Neuro research to its portfolio of research tools in 2007 by acquiring the company NeuroFocus, which became Nielsen NeuroFocus, and is currently called Nielsen Consumer Neuroscience.



It was important that the campaign message be about drinking more water, not about buying more water. Government ethics guidelines strictly prohibit officials from endorsing products, but potable water was generally widely available in the United States. Conversely, bottled water is a product widely produced by every major beverage manufacturer, and many retail establishments also have their own 'white label' or generic brands of water, so the choice of water for a campaign presented a win-win for government, public health advocates, and industry.

The increased consumption of tap water, however, would be difficult to measure, so a quantitative measurement of the impact of the campaign would revolve mostly around the sales of bottled water as a proxy for changed water consumption patterns overall. Because bottled water sold in stores has a universal product code (UPC.), it can be tracked. UPCs are an identifier by which the consumer packaged goods (CPG) industry measures the sales and inventory of food products.

A fundamental part of the analysis, both prelaunch and after launch, would be to understand the sequence of events that followed exposure to the campaign. For example, does an ad lead to an independent search first, a click-through, or a social activity; are these the intervening variables that would accelerate purchase behaviour?

To measure exposure to the message of the campaign, Nielsen provides data on audience demographics, reach, and frequency for those exposed to the TV campaign only, the online campaign only, and both the TV and online platforms combined. The campaign also measured Digital and traditional Out of Home advertising also known as place-based media. These are venues with access to television screens on a closed network, including health clubs, elevators, doctor's offices, gas stations, digital billboards, check-cashing facilities, hair/nail salons, shopping malls, and taxicabs. The impact of this medium was important, but its impact had not been previously measured.

The analytical plan also included measurement of behavioural responses measured through: (a) search activity, (b) social networking (e.g., Twitter, Instagram), and (c) purchase activity.

Search activity following consumers' exposure on earned media or online advertising was measured by observing searches on Google and compared with a pre-campaign baseline data.

Social networking engagement with the campaign was measured through a Nielsen proprietary software that examined how consumers responded to the appearance of the campaign message on the television programs on which Mrs. Obama appeared at the launch of the campaign. Response effect was deployed to examine how people behaved online following exposure to the campaign advertisements.

Purchase activity was measured by Nielsen Catalina Solutions (NCS) Sales Effect.<sup>7</sup> The Sales Effect service matched online ad exposure to offline purchase behaviour through a loyalty card panel of five to ten million panellists. NCS measured the impact of the campaign for a period of 4 years, in the 4th quarter of each year beginning in 2013 when the campaign launched. The output traced any changes in purchase behaviour that follow a web user's online exposure to the advertising by frequency level.

The methodology by which NCS measured the impact of the campaign on sales is outlined in detail below.

These reports combined informed the optimization of cross-platform ad spending as well as refinements of the campaign media strategy and messaging. An innovation of the campaign, and a driver of its success, was the ability for the campaign creators to identify quickly what was resonating

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<sup>7</sup> NCS is a separately held joint venture owned by Catalina and Nielsen.



with its audience and, more importantly, what was not. This allowed for an iterative response to drive greater penetration of the message by adjusting the visual imagery or placement of the campaign to either better reach the target audience or drive higher audience engagement with the message. This is a commonly used technique of market researchers and commercial advertisers, but it had heretofore rarely been used in public health awareness campaigns.

## 6. Pre-Campaign Activities and Methodologies for Each Activity

Working with Let's Move, the Partnership for a Healthier America and other collaborators with Nielsen, the team undertook a series of pre-campaign activities to lay the groundwork for launch. These included activities related to overall trends in purchasing and media, identifying groups we would target for the campaign, recruiting influencers, creating and testing the message and visuals of the campaign, and putting in place the metrics for measuring the campaign: how the campaign was resonating with consumers and how consumers were responding to the campaign through their purchase patterns.

### 6.1 Strategy: Understanding general market trends for the SSB and water categories

Nielsen's retail measurement (RMS) data, which is data gathered at the store level about how much of a product is sold, would help understand market-basket composition and spending. Channel data, the type of store where products are purchased (i.e., grocery, dollar, warehouse, etc.), would help provide information about the stores in which they preferred to shop. And Homescan panel data would provide knowledge of which homes were purchasing SSBs in quantities disproportionately higher than the general population was.

Market researchers have multiple and very granular methods for describing and explaining every aspect of a household's consumption pattern, including actual purchase data at the store level and by looking at a representative group of recruited panellists that represent patterns at the household level. The chart in Figure 1 is an illustration of what the research team observed about purchase behaviour of regular soda (i.e., carbonated SSB), diet soda (carbonated artificially-sweetened beverage), and water, as related to the income of the household.

The primary task in understanding how to encourage people to drink more water consisted of the use of marketing segmentation and targeting techniques:<sup>8</sup> first identifying which segments of the population were likely to choose to purchase and consume carbonated sugar-sweetened beverages at much higher levels than other segments were, and once identified, discovering how they could be encouraged to shift their behaviour in favour of drinking more water, whether bottled, filter or tap.

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<sup>8</sup> Kotler, P. T., & Armstrong, G. (2016). *Principles of Marketing* (Global Edition, 16<sup>th</sup> ed.). Harlow, U.K.: Pearson.

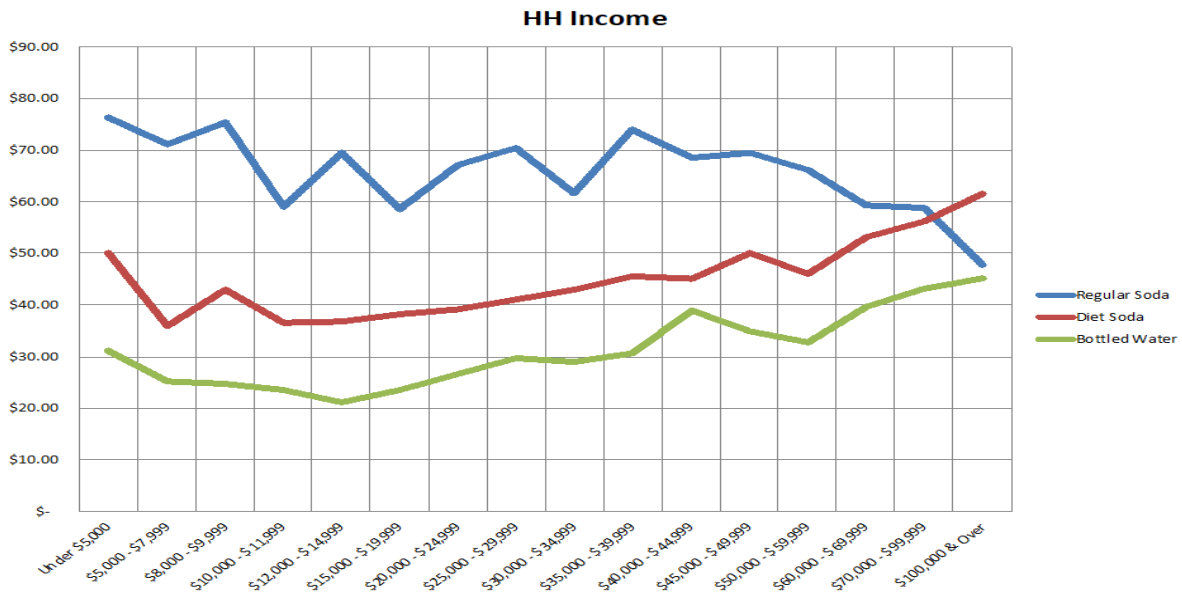


Figure 1. Beverage purchase behaviours based on household income.

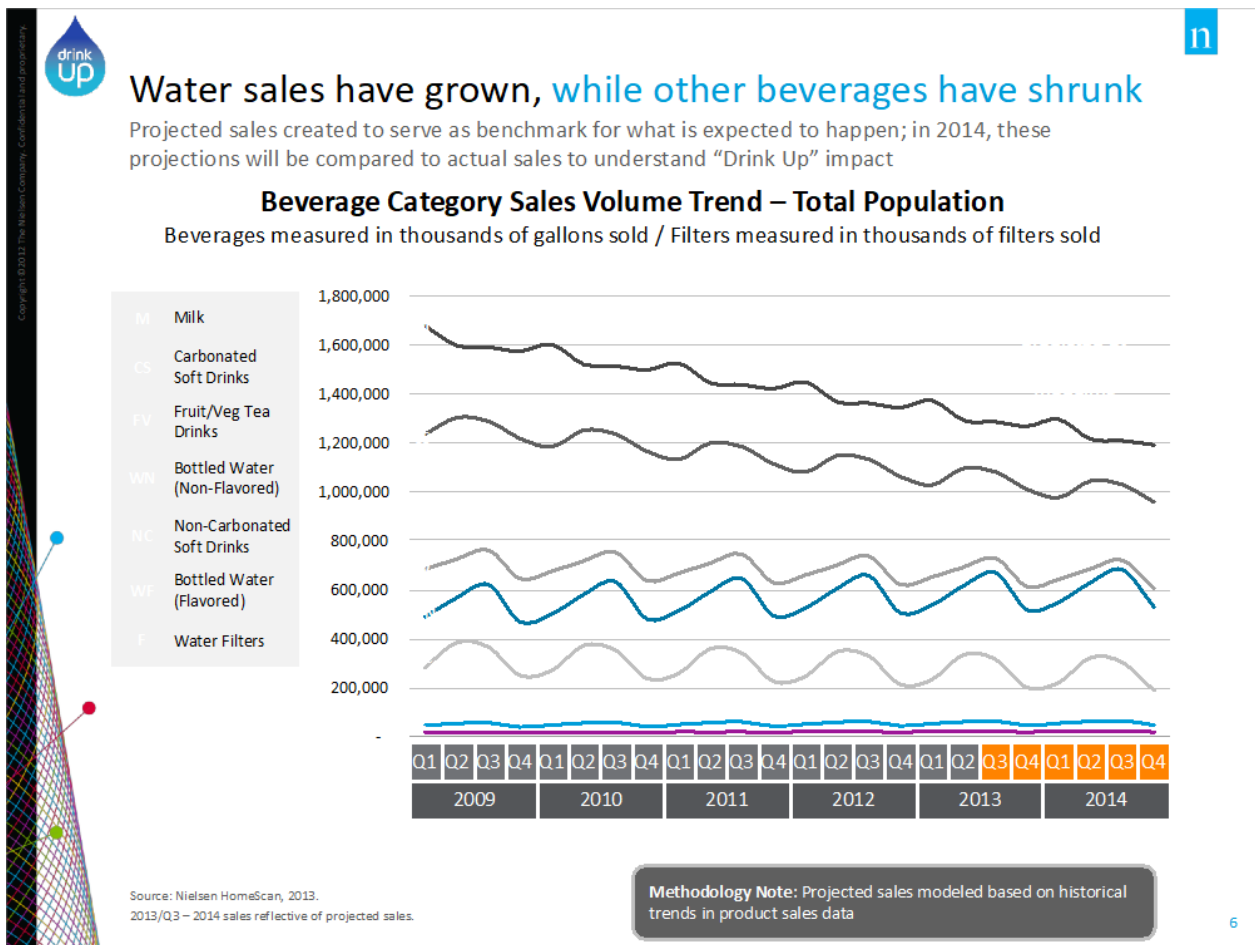


Figure 2. Beverage category sales volume trend: total population.

Importantly, the research team already understood that water sales in stores generally were rising (Figure 2, above). The goal of Drink Up was to accelerate this trend.



The client and researchers established a baseline for not only *observed* behaviour patterns on water consumption, but also *self-perceived* behaviour patterns. A month before the campaign launched, Nielsen conducted an omnibus survey to examine multiple demographic variables in relation to individuals' self-perception of their water consumption behaviours (Figure 3). Another snapshot taken a year later would capture how the self-perception had changed. (This post-campaign snapshot is not included in this case study, but is mentioned in brief.)

RAW BUYER COUNTS								HORIZONTAL DISTRIBUTION BY DEMOGRAPHY						
	Omnibus 0813 - Glasses of Water	Less than one glass a day	One to two glasses a day	Three to five glasses a day	Six to eight glasses a day	Eight or more glasses a day	Not sure/don't know	Total Responses	Less than one glass a day	One to two glasses a day	Three to five glasses a day	Six to eight glasses a day	Eight or more glasses a day	sur
<b>Total Line</b>	16,735	1,001	3,217	6,381	3,602	2,315	219	100%	6%	19%	38%	22%	14%	
<b>Income \$30000 - \$39999</b>	2,145	133	417	852	459	249	35	100%	6%	19%	40%	21%	12%	
<b>Income \$40000 - \$49999</b>	1,976	125	393	758	390	288	22	100%	6%	20%	38%	20%	15%	
<b>Income \$50000 - \$69999</b>	3,134	162	590	1,207	697	452	26	100%	5%	19%	39%	22%	14%	
<b>Income \$70000 - \$99999</b>	3,305	166	602	1,285	767	460	25	100%	5%	18%	39%	23%	14%	
<b>Income \$100000 +</b>	2,549	125	475	984	561	384	20	100%	5%	19%	39%	22%	15%	
<b>1 Member</b>	4,426	278	840	1,681	942	603	82	100%	6%	19%	38%	21%	14%	
<b>2 Members</b>	7,691	464	1,503	3,025	1,652	960	87	100%	6%	20%	39%	21%	12%	
<b>3 to 4 Members</b>	3,775	205	722	1,374	826	603	45	100%	5%	19%	36%	22%	16%	
<b>5 or More Members</b>	843	54	152	301	182	149	5	100%	6%	18%	36%	22%	18%	
<b>Age Under 35</b>	724	39	112	242	185	138	8	100%	5%	15%	33%	26%	19%	
<b>Age 35 to 44</b>	1,788	98	315	634	384	337	20	100%	5%	18%	35%	21%	19%	
<b>Age 45 to 54</b>	3,683	215	644	1,310	836	638	40	100%	6%	17%	36%	23%	17%	
<b>Age 55 and Over</b>	8,843	518	1,785	3,601	1,857	979	103	100%	6%	20%	41%	21%	11%	
<b>Age 55 to 64</b>	4,933	316	952	1,896	1,059	651	59	100%	6%	19%	38%	21%	13%	
<b>Age 65 and Over</b>	3,910	202	833	1,705	798	328	44	100%	5%	21%	44%	20%	8%	
<b>No Female Head Age</b>	1,697	131	361	594	340	223	48	100%	8%	21%	35%	20%	13%	
<b>No Kids Under Age 18</b>	13,917	837	2,697	5,368	2,984	1,835	196	100%	6%	19%	39%	21%	13%	
<b>Kids Under Age 18</b>	2,818	164	520	1,013	618	480	23	100%	6%	18%	36%	22%	17%	

Figure 3. Screenshot of spreadsheet for a Nielsen presentation to PHA in formative research phase of the campaign, identifying potential population targets.

The next and more detailed part of understanding baseline behaviour would be to look at the substantial body of information that could be gathered from *observed* behavioural data reflected in consumption patterns. This included everything from where water was purchased, how much was spent on bottled water, and what share of the household grocery shopping budget it comprised. The metric of sales of bottled water was employed as a proxy for how water consumption patterns were changing as a result of the campaign. The team also wanted to comprehend the choices and substitutions that consumers were making relative to other beverage categories, and which demographic groups were making particular substitutions.

Water is a category of beverage, as is carbonated beverages. These definitions of beverage categories and products within those categories are widely agreed upon within the marketplace and tracking is precise and automated at the store level.

Table 1 displays a partial list of beverage categories within the scope of the Drink Up campaign.





They are of beverages that retail measurement research data suggests act as replacements for water in consumer purchasing behaviours. It is important to note that water filters were also included in this purchasing list, in an effort to capture whether consumers were attempting to drink more filtered tap water. This is especially salient because the campaign message was not about buying more bottled water, but about drinking more water.

**Table 1. Nielsen Product List**

<p>0001 All Modules in Project Module</p> <ul style="list-style-type: none"> <li>beer</li> <li>breakfast drinks - powdered</li> <li>cider</li> <li>coffee - liquid</li> <li>dairy-flavoured milk-refrigerated</li> <li>dairy - milk - refrigerated</li> <li>fresh grapefruit</li> <li>fresh oranges</li> <li>fruit drinks &amp; juices - cranberry</li> <li>fruit drinks &amp; mixes - frozen</li> <li>fruit drinks - orange - frozen</li> <li>fruit drinks - canned</li> <li>fruit drinks - other container</li> <li>fruit juice - apple</li> <li>fruit juice - apple - frozen</li> <li>fruit juice - grape</li> <li>fruit juice - grape - frozen</li> <li>fruit juice - grapefruit - frozen</li> <li>fruit juice - grapefruit - other containers</li> <li>fruit juice - lemon/lime</li> <li>fruit juice - orange - frozen</li> <li>fruit juice - orange - other container</li> <li>fruit juice - pineapple</li> <li>fruit juice - remaining - frozen</li> <li>fruit juice - unconcentrated - frozen</li> <li>fruit juice-grapefruit-canned</li> <li>fruit juice-nectars</li> <li>fruit juice-orange-canned</li> <li>fruit juice-prune</li> <li>fruit juice-remaining</li> <li>fruit punch bases &amp; syrups</li> <li>ground and whole bean coffee</li> <li>light beer (low calorie/alcohol)</li> <li>soft drinks - carbonated</li> <li>soft drinks - low calorie</li> <li>soft drinks - powdered</li> <li>tea - bags</li> <li>tea - herbal - instant</li> <li>tea - herbal bags</li> <li>tea - instant</li> <li>tea - liquid</li> </ul>	<p>0002 Ttl Beverages Linked back to 0001 All Modules in Project Module</p> <ul style="list-style-type: none"> <li>fruit juice - orange - canned</li> <li>fruit juice - orange - frozen</li> <li>fruit juice - grapefruit - other containers</li> <li>fruit juice-grapefruit-canned</li> <li>fruit juice - grapefruit - frozen</li> <li>fruit juice - apple</li> <li>fruit juice - apple - frozen</li> <li>fruit juice - grape</li> <li>fruit juice - grape - frozen</li> <li>fruit juice - pineapple</li> <li>fruit juice-prune</li> <li>breakfast drinks - powdered</li> <li>soft drinks - powdered</li> <li>coffee - liquid</li> <li>tea - liquid</li> <li>soft drinks - carbonated</li> <li>water-bottled</li> <li>soft drinks - low calorie</li> <li>light beer (low calorie/alcohol)</li> <li>beer</li> <li>dairy-flavoured milk-refrigerated</li> <li>dairy-milk-refrigerated</li> <li>fruit punch bases &amp; syrups</li> <li>fruit drinks &amp; juices - cranberry</li> <li>fruit juice – lemon/lime</li> <li>fruit juice – orange – other container</li> <li>fruit drinks-canned</li> <li>fruit drinks-other container</li> <li>fruit juice-remaining</li> <li>fruit juice-nectars</li> <li>fruit juice - unconcentrated – frozen</li> <li>fruit drinks - orange – frozen</li> <li>fruit drinks &amp; mixes – frozen</li> <li>fruit juice - remaining – frozen cider</li> <li>vegetable juice - tomato</li> <li>vegetable juice and drink remaining</li> <li>remaining drinks &amp; shakes-</li> <li>non refrigerated and not Module</li> <li>fruit drinks &amp; mixes – frozen prod mix or</li> </ul>
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<p>tea - mixes          tea - packaged          tea-herbal packaged          vegetable juice - tomato          vegetable juice and drink remaining          water-bottled          coffee - soluble          coffee - soluble flavoured          remaining drinks &amp; shakes-non          refrigerated          water filtration storage container          water conditioner filters and units          or Module          fresh fruit-remaining prod          tangerine</p> <p>0005 Ttl Carb Soft Drinks          Linked back to 0002 Ttl Beverages          Module          soft drinks - carbonated          soft drinks - low calorie          Module          soft drinks - carbonated          soft drinks - low calorie</p>	<p>0006 Ttl Energy Drinks          Linked back to 0005 Ttl Carb Soft Drinks          isonm</p> <p>energy beverage          energy drink          energy fruit juice spritzer          energy juice          energy punch          energy soda          herbal energy juice          hybrid energy soda          sparkling energy drink          sparkling energy fruit drink          sparkling energy water          sports energy drink          energized soft drink</p>
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**Table 1.** Nielsen Product List.

**6.2 Methodology overview**

**6.2.1 Identifying the target audience**

It is a maxim of marketing that understanding and defining the target audience is crucial for the success of your campaign. The foundational research had given the team comprehensive knowledge of which American households consumed SSB quantities disproportionately higher than did the general population. The audience for receiving the message would need to be segmented and profiled according to their attitudes toward their health, because attitudes manifest in behaviours. Segments of the population were identified and then data about their actual or observed behaviour of that segment was compiled. The researchers wanted to identify which consumers were more likely than others to be receptive to the message, which were more likely than others to spread the message among other consumers, and which would be difficult to influence, given their attitudes and awareness.

The Natural Marketing Institute (NMI), a Philadelphia-based company and Nielsen partner, had, for more than a decade, conducted a longitudinal survey of U.S. population attitudes toward health and wellness. The survey segmented the population into psychographic segments with underlying demographic characteristics. Since 2007, the NMI Health and Wellness Segmentation had been appended to the Nielsen Homescan panel of participants. This means that Nielsen’s panel of participants, who were providing Nielsen with detailed data about their purchase patterns as they brought the products into their homes, had also been assigned to the NMI psychographic or attitudinal segmentation. The Homescan panel also had a subset panel called the “Ailment Panel.” The Ailment panel was a self-identified group of households with chronic medical conditions. Their



spending on over-the-counter (OTC) medications was being tracked for commercial clients of Nielsen seeking to understand purchase of OTC medications.

NMI's proprietary study segmented the population into five attitudinal groups. The survey, an annual snapshot, is a reflection of attitudes as they have changed over time. Percentages in any of the segments may shift as trends get adopted and population awareness of health and wellness changes.

The five segments are:

**The Well Beings:** Generally upper-income market leaders and influencers. They have the highest income and education of all of the segments and an average age of 49 years. This segment is proactive in its approach to personal health, consumes supplements, and uses many health modalities to remain healthy. They are also typically influential with other segments of the population.

**The Food Actives:** Mainstream healthy, they desire inherently healthy foods. They have a high level of education and a mean age of 50. They are heavily influenced by the advice of their doctors and sensitive to the price of food and of health-related products.

**The Magic Bullets:** Driven largely by the convenience of food, the people in this segment are heavy prescription users. They would prefer to take a pill to address any health concerns. At 52 years, they are the oldest in terms of their average age, and have a relatively low level of education. They also have a lower income skew and the smallest households. They tend to be divorced or widowed. They manage their health rather than practice prevention. Often, they are non-exercisers.

**The Fence Sitters:** This segment is younger, has the largest household by size, and contains young families (40% of them have children in the home). Their income and education skews higher. They go on fitness kicks because they are striving to be healthy, but have no clear goals. They are actively trying to lose weight but need and want help.

**The Eat, Drink and Be Merrys:** This segment skews the youngest, has the lowest education and the lowest income. They are motivated more by the taste, price, and convenience of food. They are unconcerned about prevention, are least likely to manage weight, and have the highest BMI (body mass index).

In 2013, when the Drink Up campaign undertook to research attitudes, the percentages of the U.S. population belonging to these segments looked like this:

Well Beings	17%
Food Actives	18%
Magic Bullets	19%
Fence Sitters	24%
Eat, Drink and Be Merrys	22%

The research team recommended targeting three of the five segments delineated by NMI: the **Well Beings**, the **Fence Sitters**, and the **Eat, Drink and Be Merrys** (Figure 4). The **Well Beings** were chosen for their influence on the other segments. Generally viewed as thought leaders, this segment would understand the campaign right away and would set an example for others. Many celebrities fall into this segment. The **Fence Sitters** were chosen because experience and research suggested that they are the segment of the population most eager for information about how to be healthier.



Often confused by conflicting information, research suggests that an authoritative campaign would easily influence this segment to change its habits with lasting effect. The **Eat, Drink and Be Merrys** were chosen with the knowledge that any campaign would have the most difficulty influencing this segment, even though it is the segment most in need of the message. The team believed that this public health campaign would have been remiss in not addressing the lowest socioeconomic segment of the population, which is also the most recalcitrant segment.



Figure 4. Summary of priority health and wellness segments.

Each of these segments had a set of life stages attached to their demographics, as well as attitudes about their lives, and health and wellness 'drivers.' For instance, **Fence Sitters**, some of whom are married and have children, are often younger, and they value variety and novelty, tending to be influenced by what is on-trend and what is not (Figure 5).

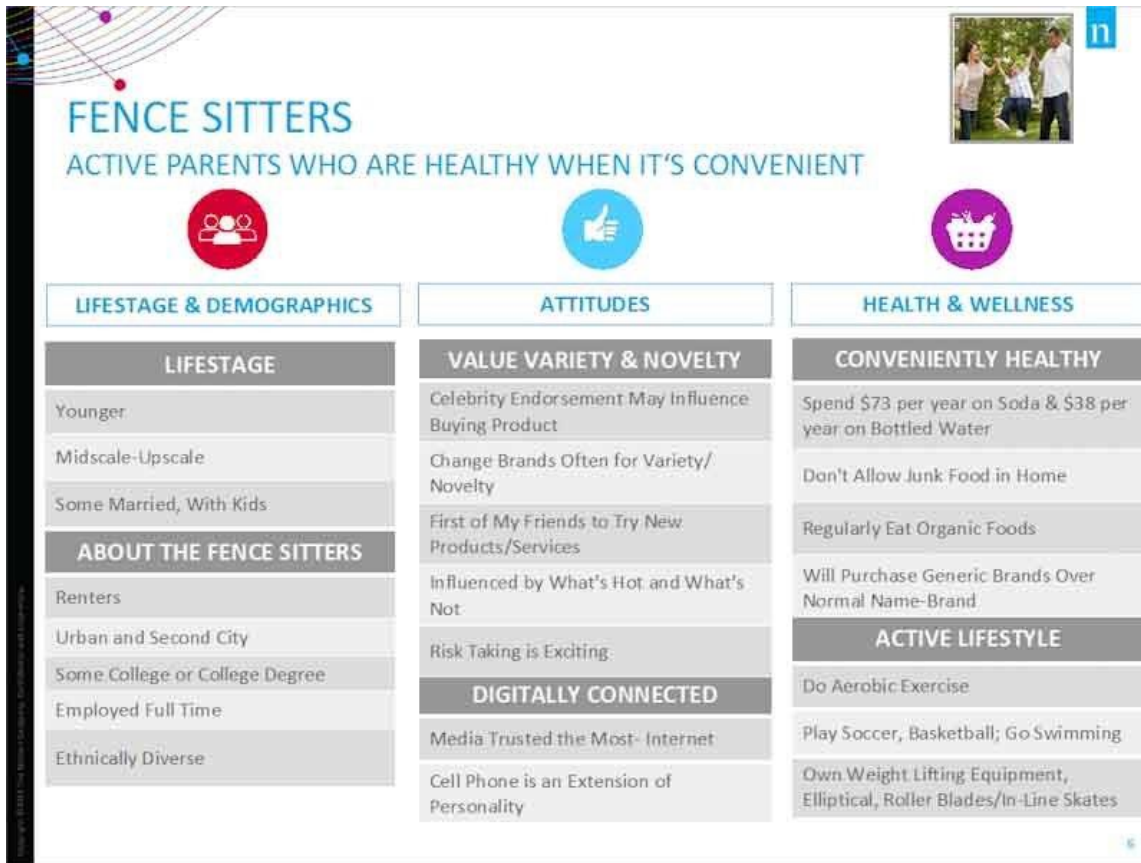


Figure 5. Profile of Fence Sitters as a demographic.

### 6.2.2 Locating the target audience geographically

Defining exactly which household is in which location would become the work of a division of called Nielsen Claritas and its PRIZM categorization tool. PRIZM groups demographic segments by geography and is widely used by companies to help find customers. It combines demographic, consumer behaviour, and geographic data in the United States and assigns the information to 68 (at the time it was 66) consumer segments based on their purchasing preferences. The segments are numbered according to socioeconomic characteristics such as income, education, occupation, and home value. It factors in life stage groups, including presence of children in the household, empty nest, and so on, as well as social groups like urbanicity, suburban, and so forth. Multiple zip codes are included in each of the 68 segments.

A profile of demographic groups by zip codes in the United States provides information about the location of each these segments, within counties, and can be as granular in detail as to describe clusters of households. It is a maxim of marketing that one's geographic location is a valuable predictor of income, education, and many other demographic characteristics. Every postal code also falls within a county, and every county is within a Designated Market Area (DMA).<sup>9</sup> These discrete markets define how the broadcast media in each region is licensed to transmit to its local population and are important to helping advertisers decide where to place advertisements.

<sup>9</sup> Designated Market Area: see note 2 above. It is important to note that DMAs often do not respect state boundary lines; thus, some DMAs traverse state lines.



In order to operationalize our segments, Nielsen matched each with PRIZM<sup>10</sup> codes that shared similar demographics, behaviours, and attitudes. Additionally, Nielsen leveraged purchasing data for a number of beverage and product categories, spanning five years, and delivered an analysis of seasonal trends and fluctuations. These baseline figures were evaluated with post-campaign data for the same product categories to account for changes in sales of water and other beverages as a result of the campaign.

The next phase of the research was to recognize the observed behavioural characteristics for each segment. Nielsen’s retail measurement (RMS) data (data gathered at the store level about how much of a product is sold) would help understand market-basket composition and spending. Channel data, the type of store where products are purchased (i.e., grocery, dollar, warehouse, etc.) would help provide information about the stores in which they preferred to shop. And Homescan panel data would provide knowledge of which homes were purchasing sugar-sweetened beverages in quantities disproportionately higher than the general population was.

Figure 6 illustrates the top 20 geographic locations of the **Fence Sitter** target group of the Drink Up campaign by DMAs, and within each DMA, each zip code (postal zone) where the target Fence Sitter population is located.

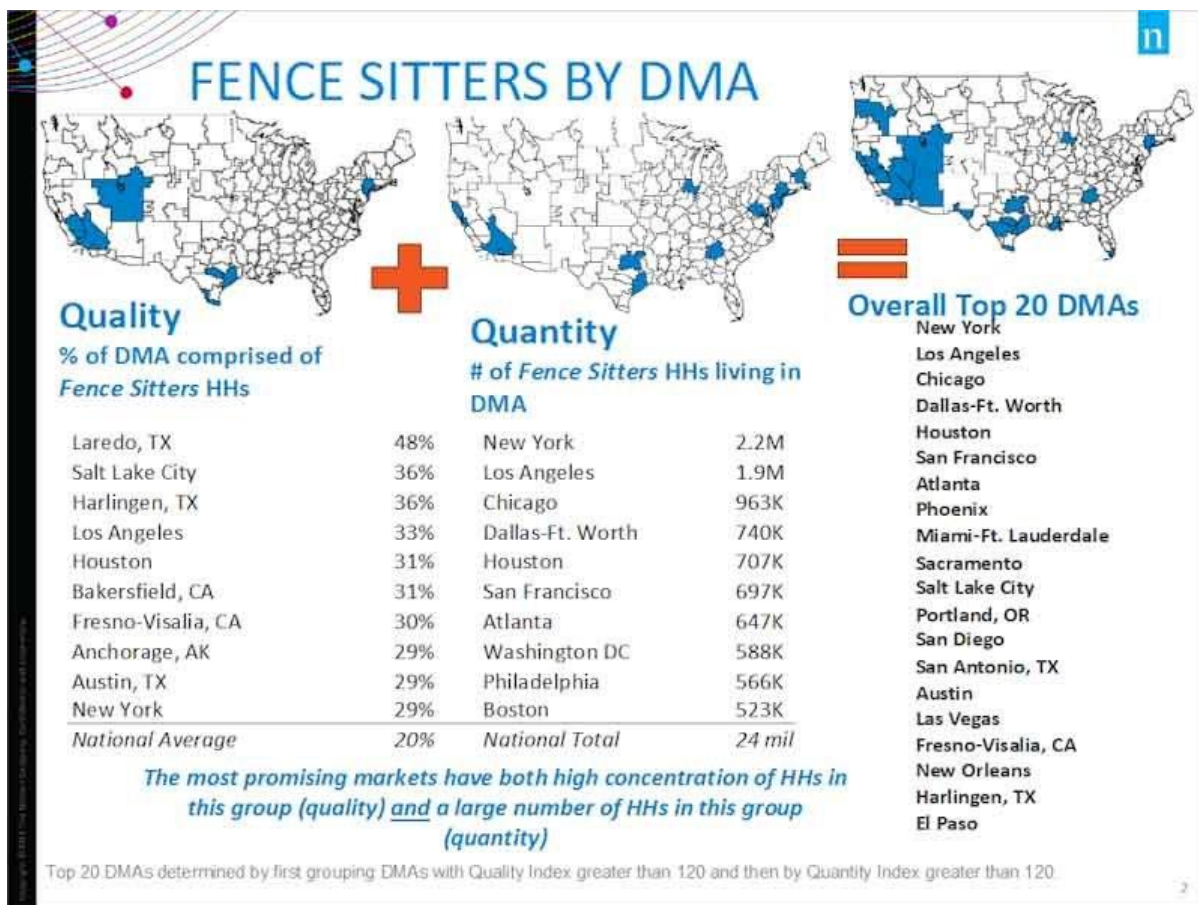


Figure 6. Fence Sitters by Designated Market Area.

<sup>10</sup> Nielsen’s PRIZM stands for Potential Rating Index for Zip Markets. It is a well-established customer segmentation system for marketing that is built around geo-demographic neighbourhood data obtained through the United States Census (<https://www.nielsen.com/content/dam/corporate/us/en/docs/solutions/segmentation/prizm-premier-segments-may-2015.pdf>).



For example, the chart in Figure 7 illustrates by zip code, in the DMA of Chicago, where each of the **Fence Sitters** was located at the time of the campaign.

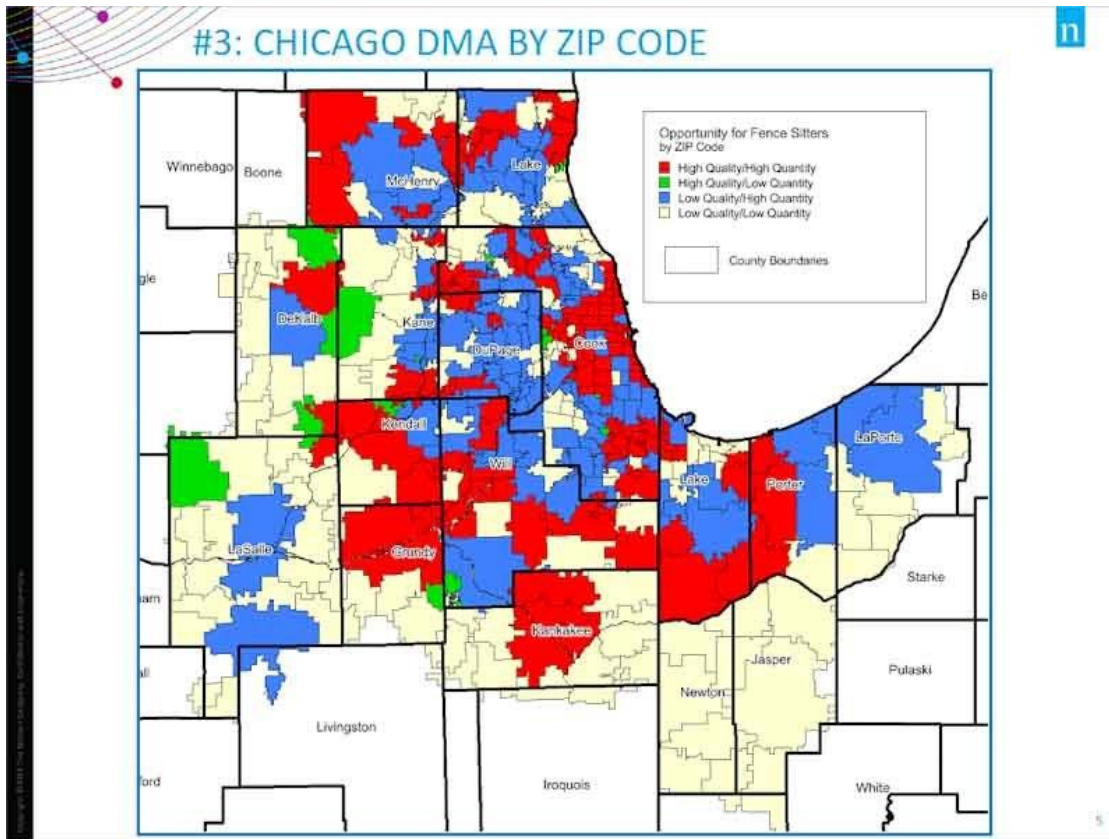


Figure 7. Chicago DMA by zip (postal) code.

### 6.2.3 Understanding what media reaches the target audience

Once geographic data was aligned, another data set was appended: a detailed explanation of media consumption behaviours in DMAs. In addition, on a nation-wide scale, the research was able to ascertain which magazine publications and popular websites would also be influential with the chosen target segments. As an example, the chart in Figure 8 illustrates media behaviours of the Fence Sitters target segment, compiled by identifying and describing their observed behaviour from multiple Nielsen data sets (see Figure 70 in Appendix C).



Figure 8. Media consumption habits of Fence Sitters.

Although Drink Up was for the most part a national campaign, focused on national media, early in the planning stage PHA and the White House had offered the campaign to mayors and their public health officials in cities around the country, providing them with an opportunity to participate by having packages of information about their local areas. These packets would include a written brief profiling their city and their citizenry by zip code, so each official could recognize those residents in their city's population who were likely to drink carbonated sugar-sweetened beverages in quantities disproportionately higher than the general population did, and furthermore, which local media to deploy and how, in order to reach these individuals most effectively.





The information in Table 2 is from a brief created for the mayor of the city of Los Angeles.

**Table 2.** Los Angeles health and well-being profile.

<b>FENCE SITTERS</b>	<b>20% of U.S. Households, 33% of Los Angeles Households</b>
<ul style="list-style-type: none"> <li>• “Wannabe” healthy</li> <li>• Good incomes and education</li> <li>• Younger families, starting out</li> <li>• Lack clear health goals</li> <li>• Managing stress</li> <li>• Exercise when time allows</li> <li>• Price conscious</li> <li>• Receptive to eco-friendly messages</li> <li>• High for TV, internet, mobile, and magazines</li> </ul>	
<b>WELL BEINGS</b>	<b>16% of U.S. Households, 31% of Los Angeles Households</b>
<ul style="list-style-type: none"> <li>• Most health conscious</li> <li>• Influencers and early adopters</li> <li>• High income</li> <li>• Middle aged</li> <li>• Skew urban, suburban</li> <li>• Support worthwhile causes</li> <li>• High for internet, mobile, social media, and print</li> <li>• Busy lives, less time for TV</li> </ul>	
<b>EAT, DRINK &amp; BE MERRYS</b>	<b>23% of U.S. Households, 15% of Los Angeles Households</b>
<ul style="list-style-type: none"> <li>• Least healthy</li> <li>• Eat fast food</li> <li>• Most likely to be obese</li> <li>• Low incomes/education</li> <li>• Youngest</li> <li>• Influenced by taste</li> <li>• Price driven</li> <li>• Above average for TV, internet, and mobile; low for print</li> </ul>	

**Table 2.** Los Angeles health and well-being profile.

## 7. Designing the Creative Visual Elements of the Message

The White House recruited a well-known San Francisco based advertising agency to work pro bono on the campaign creative designs, images, and text intended to excite the consumer’s imagination about the benefits of water. The role of the ad agency was to design the creative narrative and brand identity for the Drink Up campaign. The campaign was set to launch in June at the beginning of the summer of 2013, a time period when research shows water consumption increases in all segments of the population because of rising temperatures.

The original ad agency, as it turned out, had already been conducting some internal research of its own about consumer preferences and attitudes toward water. The agency role was to be aided and



enhanced by the research NNF would conduct into the effectiveness of the logo, the narrative, and the tagline of the campaign.

## 7.1 Creating and testing the campaign message

### 7.1.1 Using the tools of neuromarketing

Neuromarketing is the application of neuroscientific knowledge and insights to make marketing decisions. The knowledge and insights are generated through consumer neuroscience research, which is the application of neuroscientific theories and their associated tools to understand the processes underlying consumer decision making.<sup>11</sup> The inception and growth of consumer neuroscience research and neuromarketing has represented an important breakthrough for marketers in terms of their ability to obtain accurate and reliable information from consumers. Marketers have typically relied heavily on self-report measures obtained via survey questionnaires to determine the thoughts, motivations, and behaviours of their customers.

Although self-report measures can provide good information under certain circumstances, they are often unreliable. At least three reasons for this have been well-documented in cognitive and social psychological research. First, consumers may be reluctant to tell marketing researchers how they really feel about a topic, particularly if the consumers are worried that their true answers will reflect badly on themselves, such as answering honestly about socially undesirable attitudes or behaviours. Instead, consumers may tailor (distort) their answers to appear more socially appropriate, a behaviour known as socially desirable responding.<sup>12</sup>

Second, even if consumers want to honestly convey their thoughts, and they genuinely try to convey their thoughts and motivations, they are often inaccurate. The reason is two-fold. On one hand, consumers are often not consciously privy to their thinking processes, and thus are often poor at retrospective introspection.<sup>13</sup> On the other hand, consumers are easily able to articulate plausible reasons for their behaviour, and thus they may provide inaccurate data to marketing researchers even when they are motivated to be accurate.

Third, even if consumers want to provide accurate information, and they are aware of their feelings and emotions, these emotions are often difficult to articulate. Neuroscience methods are particularly useful for identifying these difficult-to-articulate emotions. For example, consumers can be exposed to particular stimuli, such as words or images; methods such as fMRI can be used to determine which areas of the brain respond, and these areas of response can be matched to known emotional responses (e.g., anger, sadness, happiness, etc.).<sup>14</sup>

In general, neuroscience measures can provide more accurate information than traditional self-report measures in three broad areas: emotional engagement, memory, and attention. Further, neuroscience can also address how these affective and cognitive functions combine to embed the message and the associated visuals into the unconscious of the consumer. Neuroscience has

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<sup>11</sup> Hubert, M., & Kenning, P. (2008). A current overview of consumer neuroscience. *Journal of Consumer Behaviour*, 7(4–5), 272–292; Shaw, S. D., & Bagozzi, R. P. (2018). The neuropsychology of consumer behavior and marketing. *Consumer Psychology Review*, 2018(1), 22-40; Plassmann, H., Venkatraman, V., Huettel, S., & Yoon, C. (2015). Consumer neuroscience: Applications, challenges, and possible solutions. *Journal of Marketing*, 52(4), 427–435.

<sup>12</sup> Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 963–968; Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson & P. R. Shaver (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). San Diego: Academic Press.

<sup>13</sup> Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84(3), 231–259.

<sup>14</sup> Shaw, S. D., & Bagozzi, R. P. (2018). The neuropsychology of consumer behavior and marketing. *Consumer Psychology Review*, 2018(1), 22-40; Plassmann, H., Venkatraman, V., Huettel, S., & Yoon, C. (2015). Consumer neuroscience: Applications, challenges, and possible solutions. *Journal of Marketing*, 52(4), 427–435.



revealed that these three factors possess the potential to propel a person to action when that memory and its associations are activated by the visual triggers and prompts created by logos, taglines, and specific narratives.

The next step in the process for the Drink Up research team was for the agency to create several narratives to be tested by the division. The campaign up until that time had been given a working title: “the Water Project”; it was not named “the Drink Up campaign” until the testing of consumer responses yielded results that indicated “Drink Up” would be a tagline with strong resonance in the consumer’s unconscious. The pilot study conducted by NNF for Drink Up tested 80 respondents (40 men and 40 women), in three study legs. Sensors were attached to each participant and measured reaction 500 times per second in all regions of the brain. In addition, tracking eye movement allowed researchers to pinpoint exactly what the participants were reacting to at any given millisecond. This study size is quantitative for neuroscience methods using EEG and enabled statistical comparisons across options at a 95 percent level.

Many of the most sophisticated advertisers around the world use neuroscience to enhance the effectiveness of their ads, packaging, in-store advertising, and media campaigns. Currently, NNF (which has expanded since the Drink Up campaign) uses self-reports, electroencephalogram (EEG), functional magnetic resonance imaging (fMRI), implicit testing (which measures underlying responses of which we are not fully conscious),<sup>15</sup> biometrics, measurement of physical response (e.g., heart rate variability, skin conductance, eye tracking, and facial coding) to get second-by-second feedback on both verbal and visual content. All of these techniques are employed in order to measure the effects on those receiving the message; this is done with the aim of creating desire for the product (Figures 9 and 10).

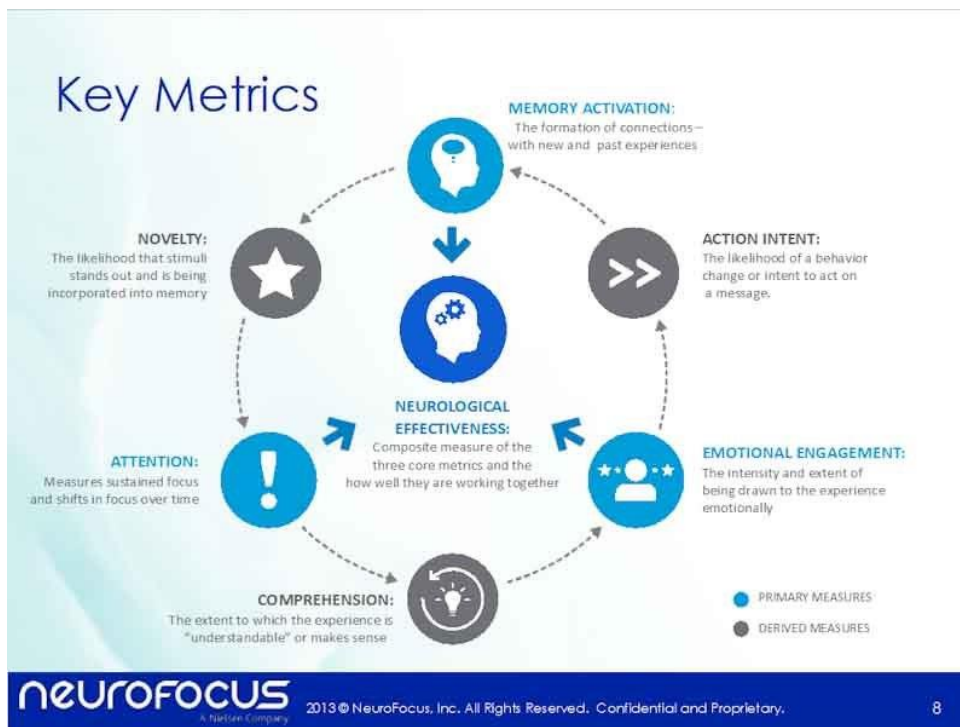


Figure 9. Key metrics for neurological effectiveness.

<sup>15</sup> <https://www.conversion-uplift.co.uk/implicit-techniques-in-market-research/>

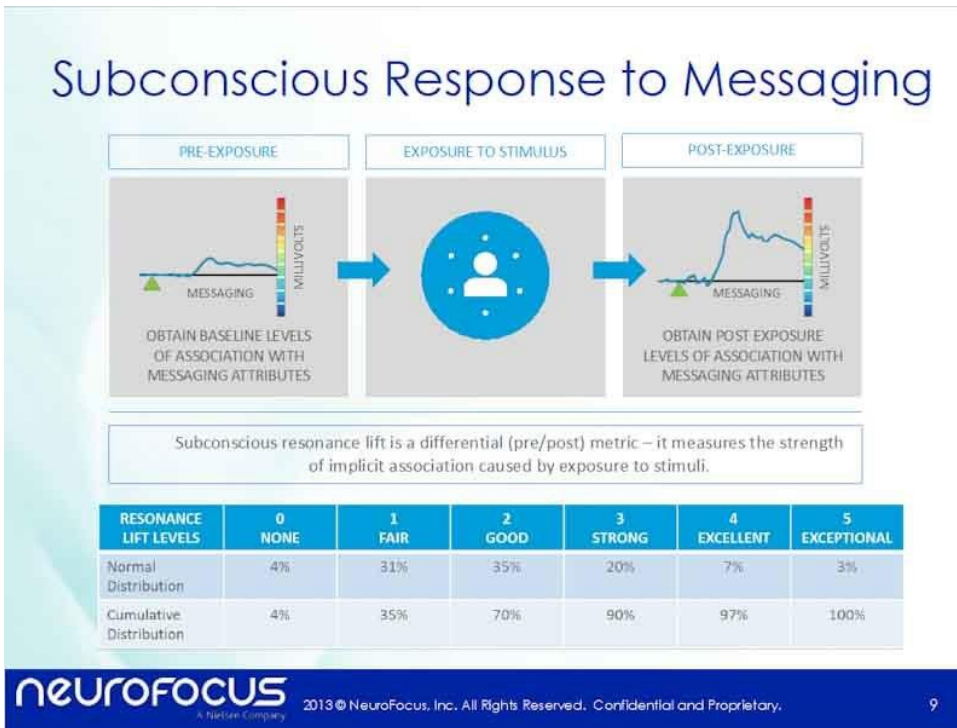


Figure 10. Subconscious response to messaging.

NNF proposed an analysis of narratives and visual cues provided by the initial advertising agency in order to improve the team’s goal of creating more effective demand for choosing water over other beverages and increase overall water consumption. The work would provide direction on how to construct the most “simple, actionable, and positive message” to which consumers would respond based on this research.

Nielsen tested three narratives and eight taglines in order to understand consumer response to the manifesto options as a whole, and to simple taglines which would represent the idea. Consumers were exposed visually and auditorily to the narratives as simple paragraphs, phrase by phrase. The exposure to the taglines was in the context of a glass of water: that is, each narrative consisted of a different combination of multiple taglines and words affixed to images of water glasses.

In its presentation to the client, NNF explained that the requirements for effective messaging would be to:

1. Make sense to people, persuade them, be intuitive, and be politically neutral.
2. Get the public behind the message such that it is widely disseminated and accepted– without hesitation – in order to produce behaviour change.

Though NNF currently uses all the techniques stated above, the study conducted for the Drink Up campaign used only EEG, a non-invasive method of reading electrical brain activity; those readings are indicative of panellists’ reactions to visual and auditory stimulus.

The approach to the study was to assess participants’ responses to different taglines and message framings. The EEG measured automatic and implicit neurological response, enabling an understanding of how each framing would impact the viewer/listener (see Figure 11). The sensors are able to uncover whether the participant feels that the message makes sense, is easy to process, and relevant to them, and more importantly, whether it will propel them to action toward the brand category of water (i.e., it leads to message adoption and behavioural intention).

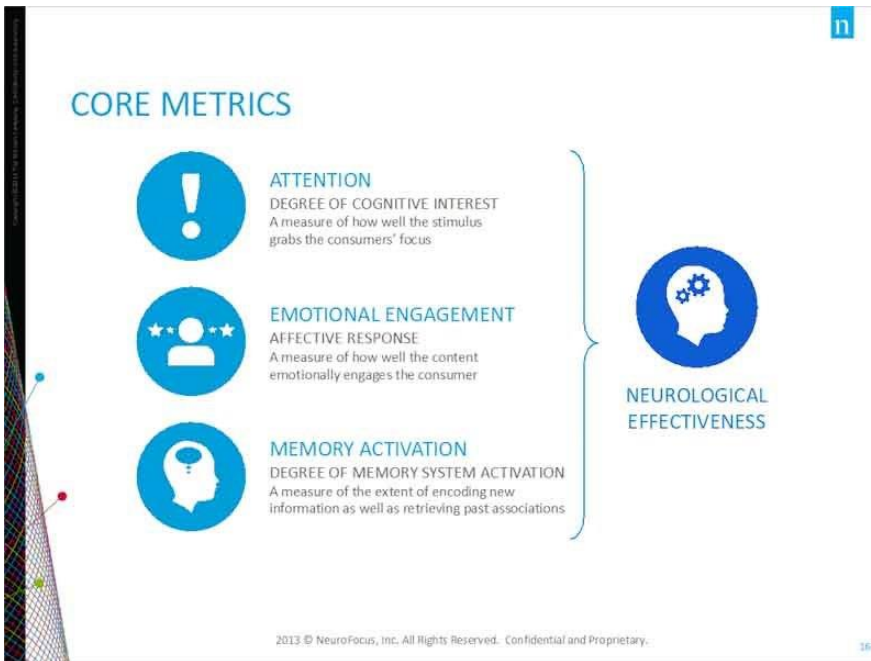


Figure 11. Core metrics for neurological effectiveness.

By testing the message narratives the researchers were able to gain insight into strengths which should be leveraged in the coming campaign (Figure 12).

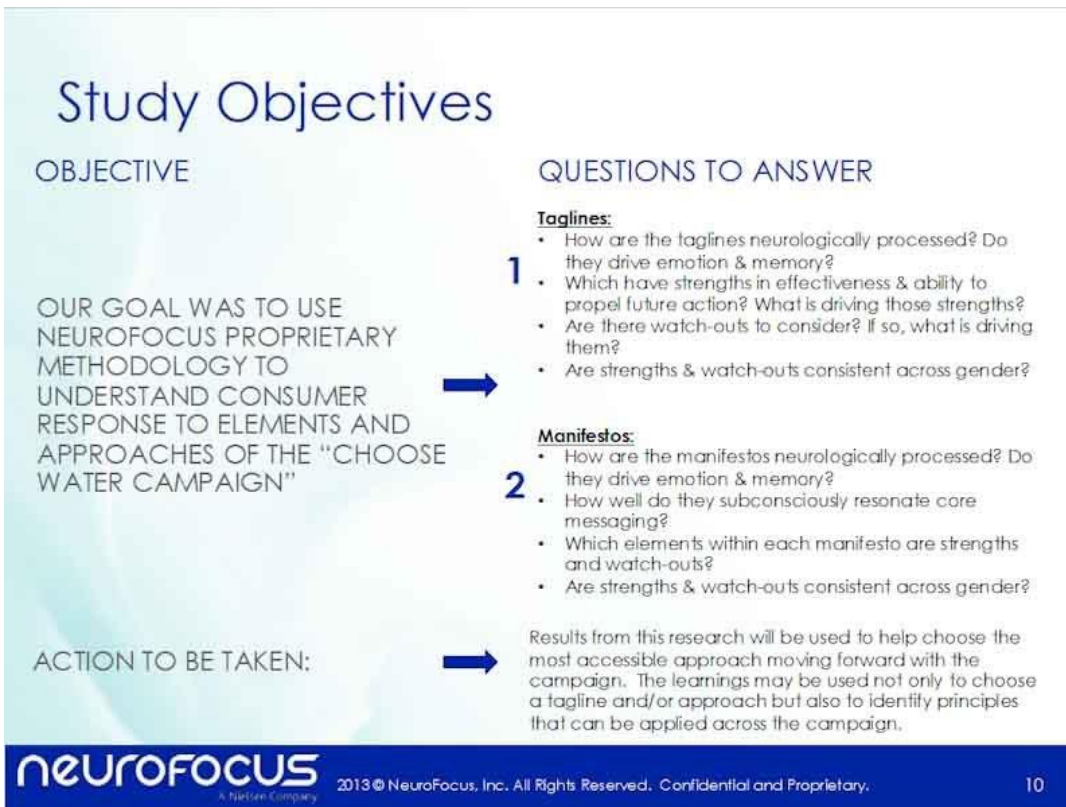


Figure 12. Consumer neuroscience: understanding consumer response.



The team tested three narratives (the first of which is graphed in Figure 13), all provided by the original ad agency:

### **1. The Original**

*Before the term “maximum strength” even existed. Before there was “fast acting” anything, or supplements with “hours of long-lasting energy,” there was water. It’s the original energy drink, the original pain reliever. The original acne medication, diabetes prevention, and diet pill. And it’s free. So, you might even say it’s the original universal health care. So what gives, America? It’s time to get back to the basics and go for the original solution to some of our most basic needs. Because at the end of the day, this isn’t another campaign about saving water. This is a campaign about water saving you.*

NOTE: The political and marketplace context of this first narrative is particularly important. While it is more popular at the writing of this case study, “Obamacare,” also known by its official designation as the Patient Protection and Affordable Care Act, signed into law by President Obama in March of 2010, was controversial at the time of the Drink Up testing and the unconscious reactions of some participants were clearly reflected in the results of the reaction to this particular narrative.

### **2. The Glass Half-Full Project**

*There are a few too many “glass half empty” kind of people in the world today. The kind of people that believe water won’t help their declining health or expanding waistlines. But you know what? It can. Water can work wonders, if only we would give it a chance. It’s the world’s only free, portable, and accessible way to stay healthier and happier in every single way. So, what we need now is to see the world with the glass half-full. To bring a little optimism to the table and experience the potential that water can bring. Let’s be a glass half full kind of country.*

### **3. Drink Up**

*Up to more energy so you can do more. Up to more stamina so you can keep doing more. Up to more feeling good and less wishing you did. Up above additives and unneeded preservatives. Up above sugar crashes and caffeine collapses. Up to more what you want and less just whatever. Up to more life and up to more living it. You’re going to drink something, and what you drink is up to you. But when you drink water, you drink up.*

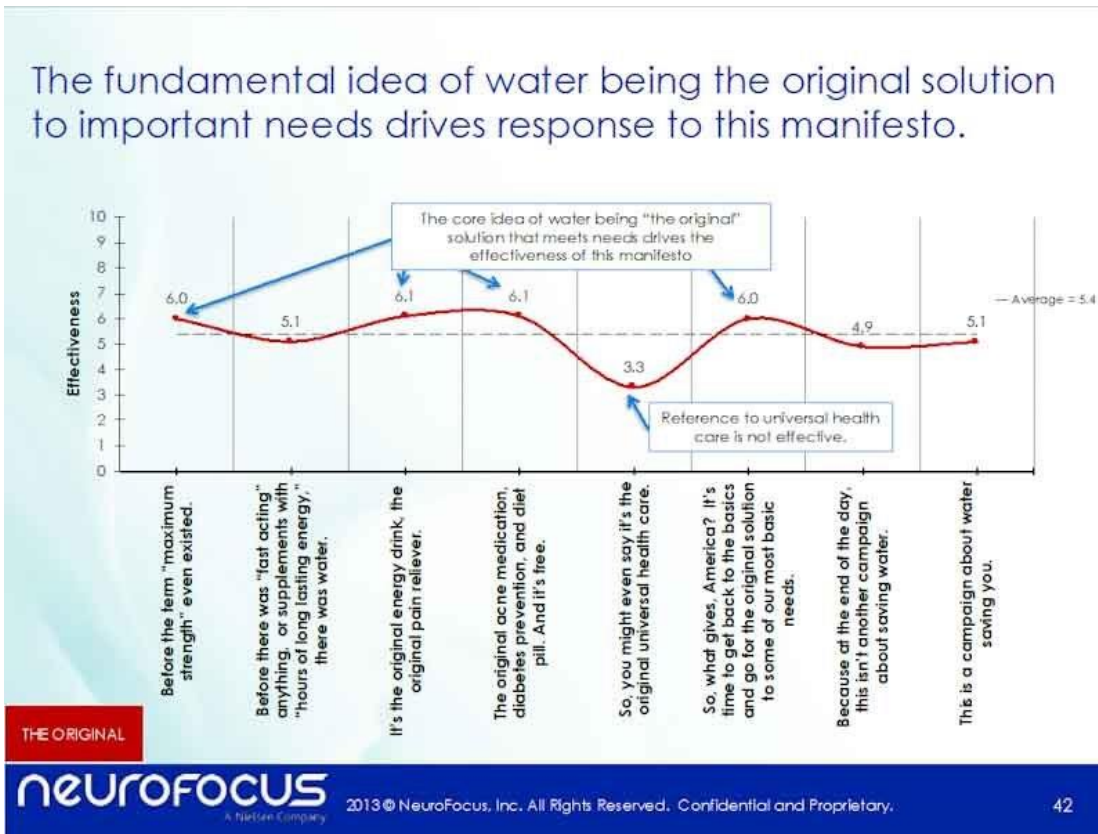


Figure 13. Responses to messaging for "The Original" narrative.

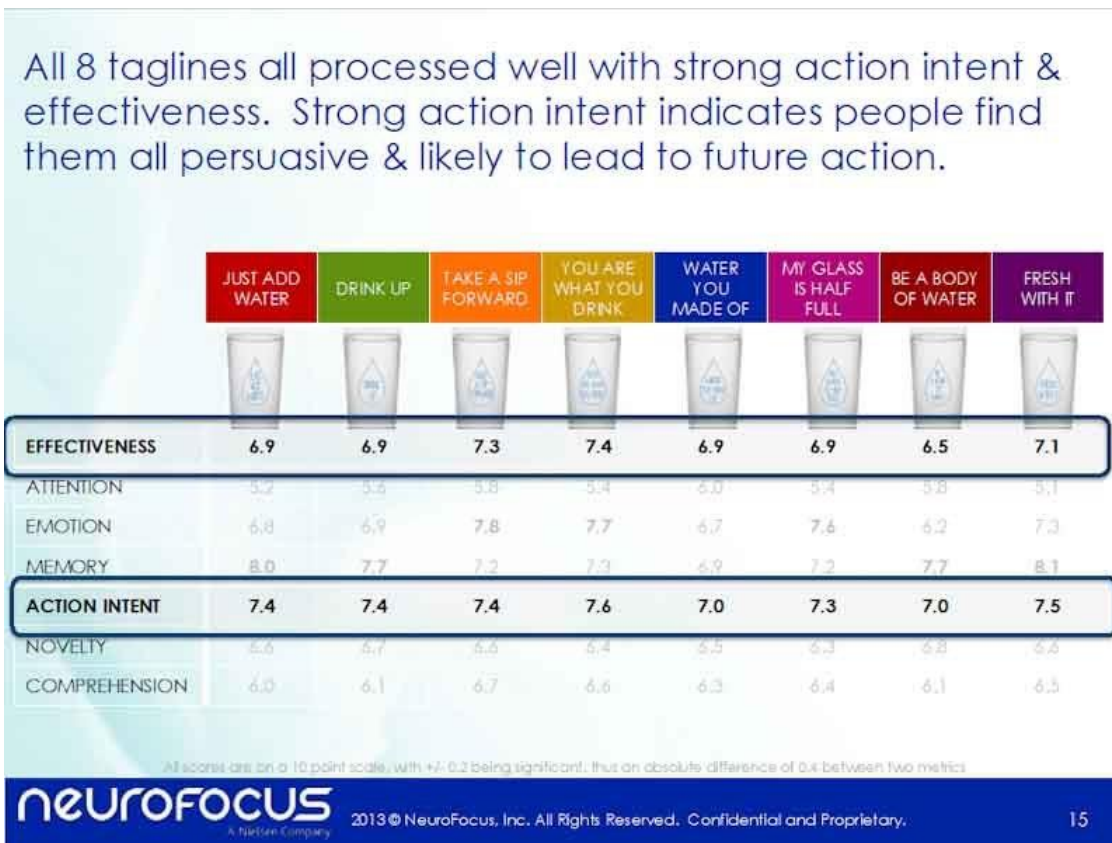


Figure 14. Activation of effectiveness and action intent for 8 taglines.



Eight taglines (Figures 14 and 15) were also tested, superimposed on a visual representation of a glass of water:

*Just Add Water*

*Drink UP*

*Take a Sip Forward*

*You Are What You Drink*

*Water You Made Of*

*My Glass is Half Full*

*Be a Body of Water*

*Fresh With It*

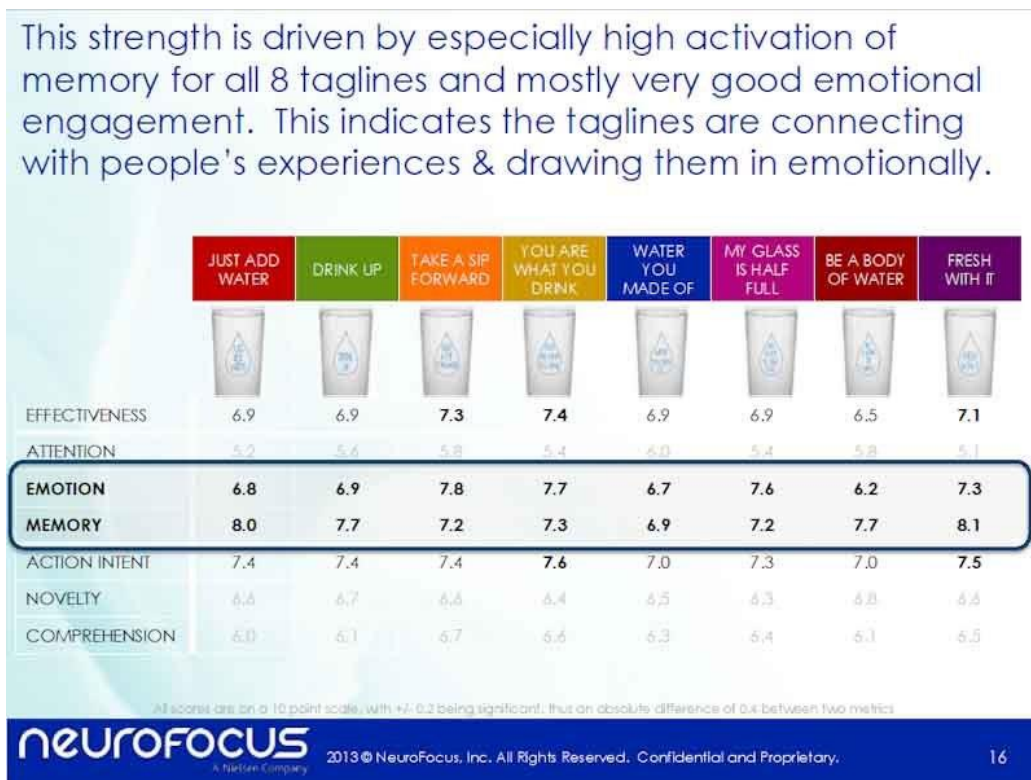


Figure 15. Activation of emotion and memory for 8 taglines.

The Drink Up Narrative performed most strongly both in terms of action intent – the measure most correlated with behaviour change and in implicitly strengthening the implicit equities of strengthening of protects, natural and available. Notably, this manifesto performed well in both women and men. The most powerful part of this manifesto was the idea of having energy to do more.

“You are what you drink” was the tagline that rose to the top with both men and women, driven especially by a strong emotional response. This led to the recommendation by NNF that one powerful way to move forward was the name and approach of Drink Up, with a tag line, “You are what you drink.”





Over the course of the pre-campaign activities a political consultant and two ad agencies were recruited. In the spring, the original ad agency withdrew from the project due to a perceived “conflict of interest,” believing that agency work on a water campaign with Mrs. Obama would be viewed as a conflict with another client. The withdrawal necessitated a delay in the launch of the campaign; it had to be postponed from June to September. However, the agency’s research narratives and work product, up to the point of its withdrawal, were used in the campaign. A new agency, Y&R (formerly Young and Rubicam), picked up the work and was the pro bono agency working with the team at the time of the launch.

### 7.1.2 Creating the brand guidelines for discipline and uniformity

Once the taglines, visuals, and narrative were in place, the ad agency Y&R began working on the “brand book” or brand guidelines. The guidelines are the look and feel of the brand image that will be public facing; this includes details about the size and colour of the fonts, the ways in which the logo may and may not be used, and the rules by which all participants using the logo for the campaign must abide (see Figure 16).



Figure 16. Brand hierarchy for Drink Up campaign.

The brand guidelines are critical. Each and any of the private, public, and NGO participants of the campaign—all of the stakeholders—would have to agree to the brand guidelines in order to be involved in the campaign. No participant in the campaign would be allowed to violate the guidelines and remain as a participant. This assured a set of rules that gave the campaign a cohesive look and addressed issues that included multiple marketplace competitors and public health policy participants who had rules of their own about their involvement with industry.

Importantly, because so many competing companies would be involved in this campaign, some important guidelines set out by PHA were that no participating company could disparage another’s water product, no company participating could say that “their” water was better than any other



beverage, and no company putting its logo on the campaign website could link to any product other than water. The definition of “water” also had to be determined: flavoured waters were not included in the campaign; artificially sweetened waters were also excluded.

In the meantime, the Let’s Move office, which operated from the White House, externalized the campaign by turning it over to PHA. PHA thus became the administrator of the project and the new point of contact for the research team.

With the guidelines and the narrative in hand, the client set about to simultaneously begin to recruit multiple stakeholders to the campaign, build the website, and buy website domains containing the Drink Up name. It also appropriated numerous Twitter hashtags, including “You are what you drink.” An exhaustive list was drawn up, consisting of search terms and Twitter hashtags which could be variants of the main terms and tags, so that any possible variants, even misspellings, would appear in search engines.

To determine which companies might be problematic from a brand use point of view, PHA conducted a trademark search. Two exhaustive charts of tagged records were prepared, showing every organization using “Drink Up” and “You are what you drink” as taglines, whether for purposes of promoting a health campaign or for other reasons. Many of those companies were contacted in advance and asked to cooperate by allowing PHA to pursue the tagline.

An animation house, Buck, volunteered to create an animated PSA that would later air on the Disney Channel, Cartoon Network, and Nickelodeon, three popular networks for children’s media in the United States. The PSAs would also be distributed on the DrinkUp.org website. Mrs. Obama narrated the animation and appeared live in the last moments of the video. The music and audio accompanying the video were created by a separate agency called Antfood. The soundtrack of the PSA was as important to creating movement as the visual message. A Spanish-language version of the PSA was created some months later.

The complete English-language version of the Drink Up PSA video can be viewed here:

**[https://www.youtube.com/watch?v=bzJKRKEU-dw&index=1&list=PLaUKk\\_NTT01pDsKiG1sD2KcnIGVwUfh0y](https://www.youtube.com/watch?v=bzJKRKEU-dw&index=1&list=PLaUKk_NTT01pDsKiG1sD2KcnIGVwUfh0y)**

The complete Spanish-language version of the Drink Up PSA video can be viewed here:

**[https://www.youtube.com/watch?v=aO\\_nAHiGYRQ&t=0s&list=PLaUKk\\_NTT01pDsKiG1sD2KcnIGVwUfh0y&index=12](https://www.youtube.com/watch?v=aO_nAHiGYRQ&t=0s&list=PLaUKk_NTT01pDsKiG1sD2KcnIGVwUfh0y&index=12)**

The narration drew from several different themes found in the three test narratives above that had tested well, and the animation sequence<sup>16</sup> is briefly described as follows:

Over images of (first) a glass of water being poured into a glass and (then) a person diving into a pool of water, the 31-second narrative read: *“Your body contains over 70 percent water. It’s what you run on; so when you feel like you’re running low, have a glass. And recharge your body. You’re gonna drink something, and what you drink is up to you. When you drink water, you drink UP.”* In the last line, the animation dissolved to Mrs. Obama, making a ‘thumbs up’ gesture. The ending shot dissolves back to an animated static shot of the Drink Up logo next to the tagline “You are what you drink.”

There was an underlying approach in the narrative message that the neuro-research indicated would make an impression on the PSA viewer, and that approach applied to the campaign generally: The

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<sup>16</sup> The animation can be found on YouTube at this link: <https://www.youtube.com/watch?v=bzJKRKEU-dw>



video and all its related messaging suggested a specific and *achievable* goal to the consumer with a strategy for drinking more water. The message was, “Drink just one more glass of water a day than you are currently drinking.” This reinforced the consumer’s ability to make an affirmative choice for themselves. The visuals of the animation communicated a sense of fun in the choice. It was also simple.

PHA and Let’s Move also began the process of recruiting celebrity influencers to the campaign who would record messages to their fans and followers; these messages carefully followed a narrative close to the message in the animated video and on all of the earned media pre-taped launch videos. For this purpose, PHA engaged the Global Philanthropy Group, an organization providing philanthropic services for high net-worth individuals, including celebrities, seeking to support worthy causes.

Celebrities in fields of sports, music, television, and film are valuable in establishing role models for what is current, exciting, and ‘cool’ in behaviour and choice. Their role would provide an important but unmeasurable influence on the three demographic target groups chosen at the start of the campaign. Each of the Drink Up campaign celebrity influencers was carefully chosen for the popular following they had, but each was also carefully vetted for their wholesome personal reputations. An association with FLOTUS required a scandal-free reputation.

Once recruited, influencers were given a menu of suggested ways they could be engaged with the campaign; these included: an overarching engagement, a social media play and volunteer opportunities. As an example, an overarching engagement might mean a celebrity would carry water with them as often as possible and, specifically, be seen drinking from a bottle with the Drink Up logo or promoting the participation in the initiative to others in their industry/field, to the media, or to local leaders. The social media option would include influencers using their personal social media to highlight the initiative and drive traffic toward the Drink Up website, and share with their fans, followers, and constituents in other ways that encouraged followers to keep track of the way the followers were making healthy choices for water. A celebrity choosing a volunteer activity might mean that they work with either faith-based or other local community leaders or national organizations to create awareness, discuss the initiative, or otherwise leverage their other volunteer opportunities to highlight the campaign.

## **8. Defining Measurements for Reach, Resonance, and Reaction of the Audience**

The goal of this campaign, as with any campaign is to *reach* the intended target, *resonate* with the audience, and have the audience *react* in the intended way (Figure 17). The resonance of an ad is defined by Nielsen as the ability of the campaign to be remembered and liked, and to motivate the viewer to purchase water. The innovation of the campaign for public awareness/health would be the ability to track reach, resonance, and reaction in almost real time and to potentially correct course if any one strategy was missing its mark.

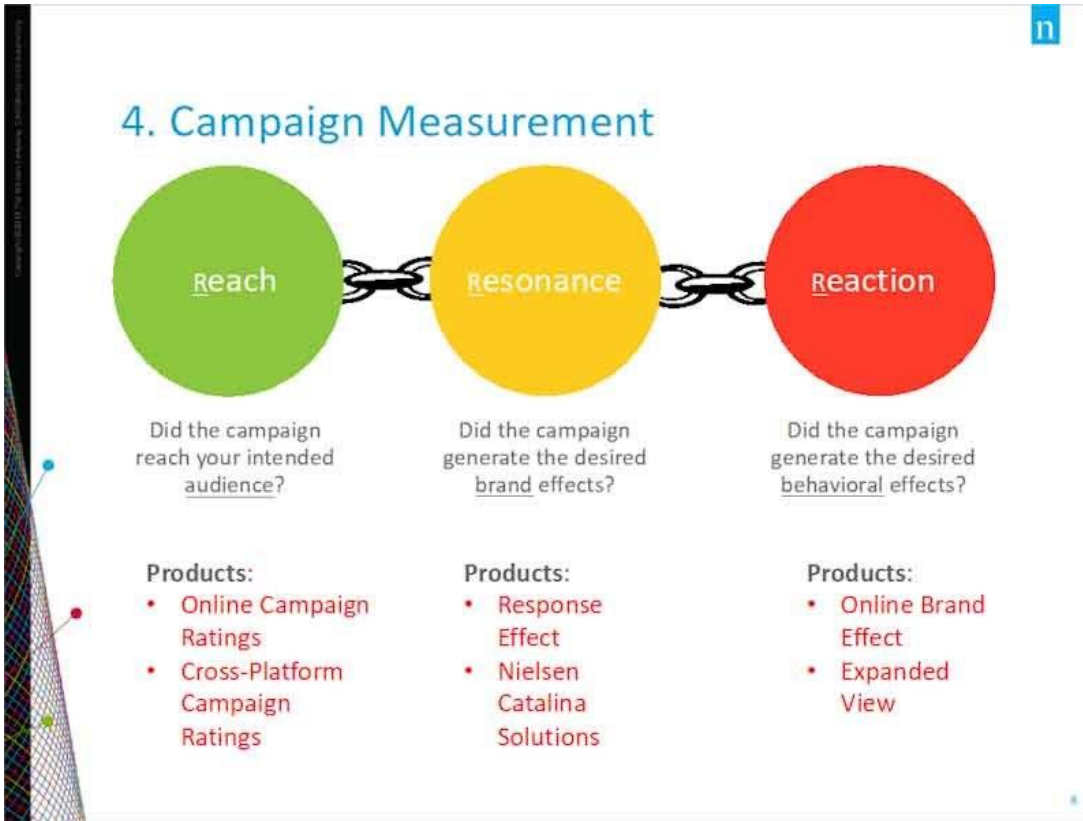


Figure 17. Campaign measurement: reach, resonance, reaction.

## 8.1 Media measurement methods

### 8.1.1 Television media measurement

The prohibitive cost (both for the production and placement) of television and radio advertising dictated a strategy that would consist largely of online or web advertising. Thus, the earned television media and the ratings accompanying that media were critical components of the launch, as it ensured the ability to create awareness. Television is still the most widely viewed and influential medium of advertising, especially for creating awareness in a broad audience. Moreover, television content has migrated to multiple platforms and devices. Mrs. Obama’s popularity and the ability to launch the message in a concentrated time period on broadcasts in every ‘day part’ of the 24-hour television programming schedule (morning, midday and late night), enabled the campaign to touch a broad viewership.

### 8.1.2 Online media measurement

Nielsen’s Online Campaign Ratings service OCR would provide reports on the reach and frequency of the campaign and those reports would be paired with estimates of campaign awareness as the campaign progressed over the last quarter of 2013. The measurement instrument within OCR would be Nielsen BrandLift: a report that would pop up a simple awareness or intent question (a one-question survey) to both known-exposed and control groups (Figure 18).

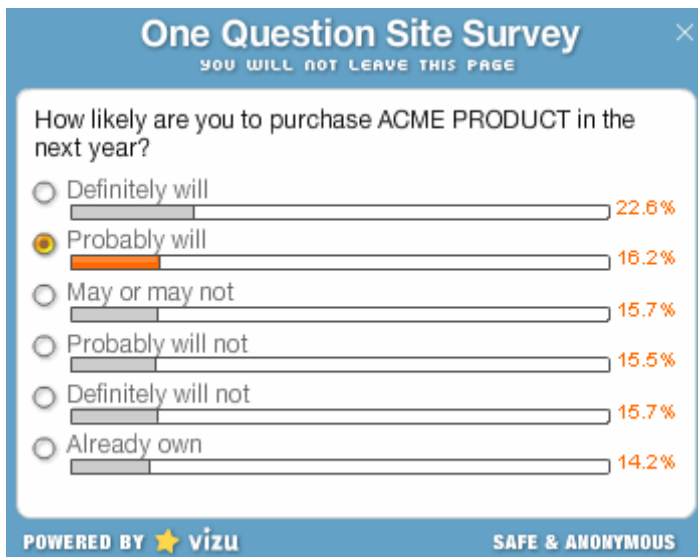


Figure 18. Sample one-question site survey.

Nielsen Expanded View, another product of Online Campaign Ratings, would re-contact exposed respondents to collect a wide variety of campaign related insights, including awareness, favourability, recommendation, purchase consideration, perception, message association, overall opinion, ad descriptor, perception, and message communication—all encoded by PRIZM code.

### 8.1.3 Social media exposure and search patterns

Search would be measured on Google and compared with a pre-campaign baseline. Search related to water keywords would be plotted along with campaign reach and total impression served, as measured through OCR.

Social was measured through a Nielsen proprietary software that compared growth in tweets around keywords related to the project. Those keywords would also be geographically mapped to the PRIZM clusters, allowing linkage of these responses to other components of the measurement plan.

### 8.1.4 Digital out-of-home (DOOH)

Exposure to traditional and Digital out-of-home advertising, also known as place-based advertisements, would be measured by a geo-fencing solution. DOOH are billboards, whether traditional or electronic, that display a static or video advertising message. Measurement of exposure to this medium employed a mobile panel—a nationally representative sample of people who agreed to be tracked via their cell phones. A virtual fence is created around the ad placements, and as panellist find themselves near the fence, an event is triggered which prompts a survey of their ad experience.

### 8.1.5 Understanding reaction through purchase behaviour patterns

It was important that the campaign message be about *drinking* more water, not about *buying* more water. Government ethics guidelines strictly prohibit officials from endorsing products, but potable water was generally widely available in the United States. Conversely, bottled water is a product widely produced by every major beverage manufacturer, and many retail establishments also have



their own 'white label' or generic brands of water, so the choice of water for a campaign presented a win-win for government, public health advocates, and industry.

The increased consumption of tap water, however, would be difficult to measure, so a quantitative measurement of the impact of the campaign would revolve mostly around the sales of bottled water as a proxy for changed water consumption patterns overall. Because bottled water sold in stores has a universal product code (UPC), it can be tracked. UPCs are an identifier by which the consumer packaged goods (CPG) industry measures the sales and inventory of food products. UPCs of Brita products were also tracked.

When a consumer walks into a grocery, convenience, big-box, or dollar store, a surprisingly high percentage of their purchase decisions are made in that environment, with estimates ranging from 60-90 percent.<sup>17</sup> A combination of shelf signage, placement on the shelf, layout of the store, incentives outlined by circulars, coupons and discounts provided by the store either in store either in advance or at the time of shopping, all have an impact on the un pre-planned purchases. The packaging at point of sale would be an important reminder of the message to buy water.

Thus, the ultimate measurement of success of the Drink Up campaign would be an examination of the sales of bottled water in stores (offline sales behaviour). The purchase behaviour analysis included in this case study does not look specifically at whether bottled water imprinted with the Drink Up logo performed better than bottles without the logo. The message of the campaign was "Drink more water," and the participants wanted to implement that goal, regardless whether a bottle carried the logo or not. Furthermore, the measurement of sales was, the researchers believed, the only statistically reliable way to understand whether the campaign was working. Purchase behaviour would stand as a proxy for discovering whether water drinking habits were changing in response to the heightened awareness generated in the broader population and, specifically, among the targeted segments.

Catalina is a company with 30 years' experience helping retailers, CPG manufacturers, and advertisers understand purchase behaviour in stores. Catalina does this by analysing shopper loyalty cards that incentivize consumers with coupons and other discounts on store receipts at register checkout. The joint venture between Nielsen and Catalina is a separately held, owned, and operated company called Nielsen Catalina Solutions (NCS). It currently cross-references the shopper loyalty card data of 90 million customers with their tracked media exposure.

Specifically for the Drink Up campaign, NCS was tasked with tracking the online advertising exposure to the campaign and subsequent purchase behaviour among the target segments. For this purpose NCS used a tool called Sales Effect. The methodology for Sales Effect was to match duplicated data from 70 million U.S. households that calibrated Catalina loyalty card data with Nielsen Company's Homescan panel and RMS data, to gauge the advertising exposure of the panel to the Drink Up message. That is, two subsets of panellists were matched according to their demographic characteristics and habits: one panel became a control panel, and the other was the panel exposed to the advertising. The online ads were "tagged"—encoded with an identifier so that exposure could be tracked by the individual Internet Protocol address, or IP identifier, of each participant enrolled in the panel of participants who had agreed to allow their online behaviours be tracked by Nielsen. Both the exposed panel and the control panel loyalty shopper card purchases were tracked so that differences in purchase patterns could be identified and analysed.

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<sup>17</sup> Zaltman, G. (2003). *How customers think: Essential insights into the mind of the markets*. Boston: Harvard Business.



NCS identified the **exposed** group and the **control** group for characteristics that matched each of the groups by geographic location, age, income, race, presence of children, and many other (proprietary) characteristics. (The number of total characteristics on which the test and control households are matched exceeded 100.) A one-year history was recorded, in total and month-by-month, of pre-period purchasing of the reporting item and category, including basket size and how many dollars were spent, units purchased, and trips to the store completed (Figures 19, 20, & 21). NCS also identified all of these same characteristics in the pre-advertising period for the purchase of competitive items (within the category), as well as the purchase of items in the category on 'deal' (meaning promotion, coupon, or discounted sales) in the store.

## Methodology



Figure 19. Campaign methodology summarized.



HHs are matched based on a variety of criteria in order to isolate the impact of advertising.



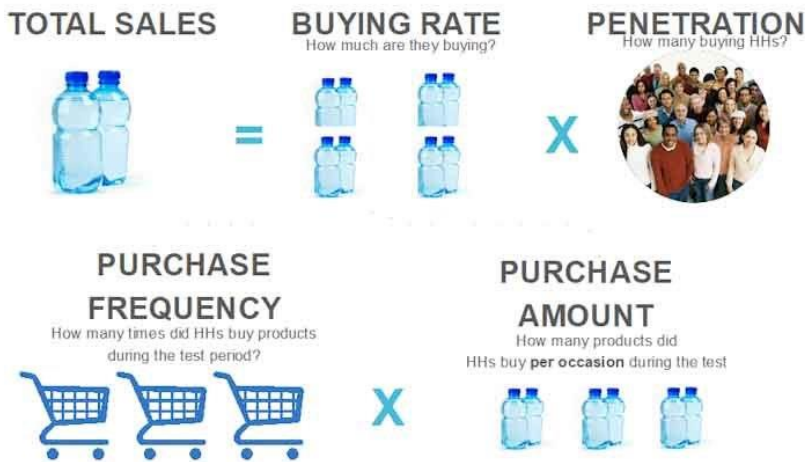
**Matched Household Pair**

**Matched on Similar:**

- Brand and Category Penetration
- Total Pre Period Brand Dollars/Volume/Units
- Total Pre Period Category Dollars/Volume/Units
- Trips by Retailer
- Household Demographics
- Geographic Location
- Lapsed Time since purchase

Figure 20. Criteria for matching of household pairs.

### How Do We Calculate Sales?



**TOTAL SALES:** Determined by a combination of lift in Penetration and Dollar Buying Rate between Exposed and Unexposed HHs.  
**BUYING RATE:** Determined by Purchase Frequency X Purchase Size

Figure 21. Formula for calculation of sales.





## 9. Multi-stakeholder activation

A late stage activity of the campaign was to recruit additional industry stakeholders. The campaign successfully enlisted trade organizations (e.g., American Beverage Association; International Bottled Water Association) and industrial leaders of both established (e.g., Nestlé, Coca-Cola, PepsiCo) and emerging brands (e.g., WAT-AAH, Voss, Hint, 90H2O) of bottled water. Many of the brands participating in the campaign were represented by their water divisions. Each stakeholder in the campaign agreed to abide by “brand guidelines” for the message, resulting in consistent stakeholder messaging for maximum message impact on consumers.

Partnerships were also formed with manufacturers of water-related products. GlobalTap, a company that installs public drinking stations, introduced a special bottle and filling station for public locations featuring the campaign creative. For every tap station installed, GlobalTap agreed to donate a Drink Up station to a local school. Another crucial partnership was forged with Brita, the well-known manufacturer of household and personal water filters and reusable bottles. All industry partners agreed to integrate the campaign logo and tagline into the labels of their water-related merchandise, as well as to ideate point-of-sale (POS) strategies in order to deliver the campaign message in connection with their products more effectively.

The final visual reinforcement of the message would take place at the point of purchase, also known as point of sale, through tens of millions of bottled water and filtered water containers. For those not *purchasing* water, but still receiving a reinforcement triggered by the Drink Up logo, that reinforcement would happen at point of consumption: at water fountains and when buying reusable personal containers imprinted with the Drink Up logo. The commitment by participating companies such as Nestlé, PepsiCo, Coca-Cola and Brita to print the Drink Up logo on bottles, packaging, and even delivery trucks was essential to reinforcing the advertising campaign—and the practice continues at this writing.

Central to the sustainability of the campaign was PHA’s need to demonstrate whether the efforts had made a measurable difference in the population it aimed to reach. The ability to continue to recruit additional stakeholders, and to retain the involvement of those already engaged, would mean the campaign could continue to grow its impact with added resources from the stakeholders involved. These were stakeholders who had written checks specifically designated for the campaign and had made commitments to donate in-kind resources, which were in many cases equally as important, and either equivalent to or more valuable than, the monetary donations. The bottled water manufacturers for instance, agreed to place the logo on tens of millions of bottles of products that would be placed on store shelves.

### 9.1 An aside about product placement: The role of cultural influencers in modelling norms

Product placements are also measured by commercial market researchers but were not measured for the purposes of this case study or as part of the analysis of this campaign, except in limited instances.

The public often takes its cues for how to behave from the influence of figures admired in popular culture and entertainment, including sports icons, movie and television actors, musicians and other celebrities.<sup>18</sup> The subtle and sometimes not so subtle role that popular culture plays in establishing norms should not be undervalued or underestimated. Commercial advertisers spend tens of millions of dollars signing celebrities to endorsement deals that require them to advertise a product, both

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<sup>18</sup> McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process, *Journal of Consumer Research*, 16(3), 310–321.



overtly and through product placements. This includes requirements to wear, carry, mention, and otherwise associate themselves with a product over the course of the length of the contract to which they are signed. These product placements and associations are likely the most significant and least transparent tactics of influencing an audience to favour or consume their product. The placements and use of the product confer the same associations that the audience has with the cultural content itself, and are almost always a result of being written into the storyline of a movie or television script, a song, or a videogame. The audience often does not recognize the placement as an advertisement but believes it to be integral and often coincidental to the cultural content. This kind of product placement advertising is found in content that is both fictional and non-fictional.<sup>19</sup>

Case Study #1: Usain Bolt. A good example of product placement is found in the content featuring Usain Bolt, 12-gold medal Olympian (2008, 2012, 2016) from Jamaica. Bolt, who is commonly referred to as the fastest man in the world, entered into an endorsement deal with Gatorade™, an SSB that contains electrolytes and is manufactured and sold by PepsiCo.

In 2012 Gatorade released “Bolt!”, a video game that was designed to inspire kids to be their best and remain dedicated, much in the same way Usain Bolt had done as a determined athlete. According to its creators, video game designers Manning Gottlieb (OMD), the game was a tremendous success. The company claimed there had been 2.3 million downloads by 2013 with 4 million online users and 87 million plays. It even won a bronze medal for mobile advertising, from an industry organization, the IAB.

According to a news report by Gizmodo<sup>20</sup>, the object of the game was for Bolt “to run through increasingly difficult levels and grab some Gatorade to keep him fuelled while avoiding the dangerous water that might compromise his performance” as a runner. In other words, water was the enemy of athletic performance (see Figure 22).

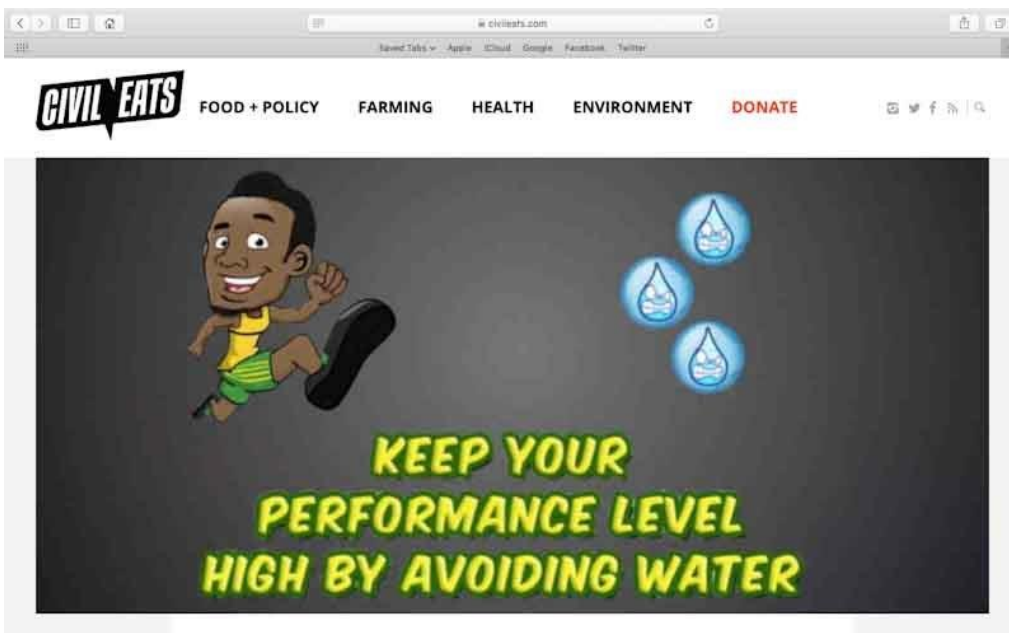


Figure 22. Screenshot of Gatorade anti-water video game featuring Usain Bolt.

<sup>19</sup> Shrum, L. J. (Ed.). (2012). *The psychology of entertainment media: Blurring the lines between entertainment and persuasion* (2<sup>nd</sup> ed.). New York, NY: Routledge; Lowrey, T. M., Shrum, L. J., & McCarty, J. A. (2005). The future of television advertising. In A. J. Kimmel (Ed.), *Marketing communication: emerging trends and developments* (pp. 113–132). New York, NY: Oxford; McCarty, J. A. (2004). Product placement: The nature of the practice and potential avenues of inquiry. In L. J. Shrum (Ed.), *The psychology of entertainment media: Blurring the lines between entertainment and persuasion* (pp. 45–61). Mahwah, NJ: Erlbaum.

<sup>20</sup> <https://gizmodo.com/gatorade-to-pay-300-000-for-using-usain-bolt-game-to-t-1818656349>



In a broader context, the relationship between promoting drinking water and advertising Gatorade as a competitor to water would become an issue for two United States Attorneys General, one in New York in 2014 and another in California in 2017, who sued the maker of Gatorade over its advertising to children that positioned water as the inferior competitor to their sweetened beverage. (These were online video game advertisements aimed specifically at children; for details, see the next section of this case study and the sources in the Notes for this section.<sup>21</sup>)

In September 2017, the Gatorade Company agreed in a settlement with the State Attorney General of California to pay a \$300,000 settlement for promoting misleading and disparaging statements about water. According to a CNN news report<sup>22</sup> at the time:

In addition to governing how the company depicts water, the settlement requires Gatorade to disclose endorser relationships in any social media posts. It will prohibit the company from advertising its products in the media when children under 12 make up more than 35% of the audience.

Gatorade must pay \$300,000 to the California Attorney General's Office, \$120,000 of which will be used to fund research or education about the importance of drinking water and proper nutrition in kids and teenagers.

CNN reported that according to the terms of the settlement, the company is prohibited from generating the following misleading impressions in its advertising:

- (a) Water will hinder and/or adversely affect athletic performance;
- (b) Consuming water in general is to be avoided in favour of consuming Gatorade;
- (c) Athletes consume Gatorade and avoid all water consumption; and
- (d) Water consumption in general should be avoided.

As Gizmodo reported:

When it was riding high on its success, OMD framed the game as “an entertaining and competitive way to reinforce to teens that consuming Gatorade would help them perform better [...] and that water was the enemy of performance.” But the reality is that the medical community recommends that water be a kid’s “initial beverage of choice as long as daily dietary caloric and other nutrient (e.g., calcium, vitamins) needs are being met.” Only in rare circumstances would a sports drink be preferable to water and the American Association of Pediatrics says that “water is also generally the appropriate first choice for hydration before, during, and after most exercise regimens.” But you [the Gizmodo reader] probably knew that, because you’re not a naive, impressionable kid that idolizes Usain Bolt.

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<sup>21</sup> For details, see these news reports: <https://oag.ca.gov/news/press-releases/attorney-general-becerra-announces-settlement-gatorade-over-allegedly-misleading>; [http://www.huffingtonpost.com/nancy-huehnergath/gatorades-war-on-water-da\\_b\\_6055884.html](http://www.huffingtonpost.com/nancy-huehnergath/gatorades-war-on-water-da_b_6055884.html); <https://civileats.com/2014/10/23/update-gatorades-war-on-water-dampened-by-ny-attorney-general/>; <https://www.theverge.com/2014/1/20/5327072/gatorade-bolt-game-food-marketing-mobile-apps>; <https://oag.ca.gov/news/press-releases/attorney-general-becerra-announces-settlement-gatorade-over-allegedly-misleading>

<sup>22</sup> <https://www.cnn.com/2017/09/21/health/gatorade-settlement-bolt-california/index.html>



Over a third of the money that The Gatorade Company, a subsidiary of PepsiCo, will pay out is going to “advancing youth nutrition in California,” according to [CBS News](#). Since the 1970s, obesity rates in children have doubled, and in adolescents, they’ve quadrupled, according to a 2017 [study](#) published in the *Journal of Public Health Dentistry*. The primary culprit from the obesity explosion was found to be the consumption of sugar-containing beverages.

We [Gizmodo] reached out to The Gatorade Company for comment on the settlement and here’s what a spokesperson had to say:

*The mobile game, Bolt!, was designed to highlight the unique role and benefits of sports drinks in supporting athletic performance. We recognize the role water plays in overall health and wellness, and offer our consumers great options ranging from Aquafina purified water to premium and enhanced options such as Propel and Lifewtr. Through these brands and continued innovation, PepsiCo will always strive to provide consumers with choices appropriate for any occasion.*

“Making misleading statements is a violation of California law,” California Attorney General Xavier Becerra said in a [statement](#). “But making misleading statements aimed at our children is beyond unlawful, it’s morally wrong and a betrayal of trust.” ([Attorney General of California via CBS News](#))<sup>2324</sup>

Three years earlier, in October 2014, The New York State Attorney General’s office reached a “letter agreement” with PepsiCo, in which the company would neither admit nor deny any wrong doing with the Bolt! app, but would agree to no longer make it available for download, and they would also donate \$100,000 to PHA, specifically for the Drink Up campaign. As reported by Civil Eats, a publication covering the food industry. The letter agreement read in part:

*The Attorney General believes that the Bolt! App, which was promoted in social media outlets by professional athletes, including the Olympic athlete Usain Bolt, was misleading in a number of ways, particularly to children and adolescents. The Attorney General believes that the marketing of the App and the App itself created the misleading impression that (a) drinking water will hinder and/or adversely affect athletic performance; (b) drinking water is to be avoided in favor of drinking Gatorade; (c) athletes drink Gatorade and avoid water consumption; and (d) water consumption in general should be avoided.<sup>25</sup>*

In 2016, Gatorade sponsored a three-dimensional animated film called “The Boy Who Learned to Fly” (Figure 23);\_it is a four-part series for YouTube, also aimed at young audiences, featuring a cartoon image of Mr. Bolt. The filmmakers describe the animation as telling the story “based on true events” of Bolt’s rise from humble beginnings as a young athlete in Jamaica to his spectacular career as a gold medallist. The filmmakers worked in collaboration with Gatorade’s advertising agency, Chiat Day.

<sup>23</sup> <https://sanfrancisco.cbslocal.com/2017/09/21/gatorade-pay-california-water-usain-bolt-advergame/>

<sup>24</sup> <https://oag.ca.gov/news/press-releases/attorney-general-becerra-announces-settlement-gatorade-over-allegedly-misleading>

<sup>25</sup> <https://civileats.com/2014/10/23/update-gatorades-war-on-water-dampened-by-ny-attorney-general/>



Figure 23. Screen grab from Gatorade-sponsored film about Usain Bolt.

A 2017 documentary about the life and achievements of Usain Bolt, called “I Am Bolt,” on the video streaming service Netflix, contains no fewer than nine product placements of Gatorade in the narrative.<sup>26</sup>

Case Study #2: Stephen Curry. During the Drink Up Campaign, basketball star Stephen Curry opted to go a different direction with his endorsement decisions. As a celebrity recruited by PHA, Curry had been involved with the Drink Up campaign from the time of the launch (Figure 24).



Figure 24. Promotional competition featuring NBA star Stephen Curry.

<sup>26</sup> <https://gizmodo.com/gatorade-to-pay-300-000-for-using-usain-bolt-game-to-t-1818656349>; <http://time.com/money/4459824/2016-rio-olympics-endorsement-deals/>; <https://www.forbes.com/profile/usain-bolt/#a0a220bc805c>



In 2015, the third year of the Drink Up campaign, Curry signed a three-year deal to represent Brita, which sells home water filter pitchers and is owned by the Clorox company. Clorox too had participated in the Drink Up campaign from its inception. In press reports at the time of the announcement, Curry was quoted talking about the benefits of water to his performance as an athlete: "I have learned more and more about the benefits of water, and I try to drink plenty throughout the day," Curry said, "Being hydrated for games and training is key for me."

The media noted that the signing of a celebrity was an interesting one for Brita, which had never had a celebrity endorse its product before. ESPN reported:

The move is an interesting one for Brita, which has never had a celebrity endorse its product. The filtration company -- which pitches consumers on delivering better tasting water out of the tap in a more economic fashion while reducing plastic waste from use of water bottles -- has been the market leader in the space for more than two decades but has been relatively steady at between \$300 million and \$400 million in sales for the last five years.

Curry's agent, Jeff Austin, remarked on Curry's awareness of himself as a role model to children: "Steph realizes the responsibility he has, and he isn't going to push something that he wouldn't recommend to his own kids," Austin said. "When Brita approached us and made the pitch, it was very appealing to Steph. He wants to send the message to make good, healthy choices in life."<sup>27</sup>

Although the following aspect was not part of the study tracking or data, this is the author's own conjecture: Curry's influence as a celebrity is largely confined to the United States and he does not rival the star power of Usain Bolt, but the regular appearance of Curry in commercials both on television and online, over time, especially with the demographic that follows American basketball, may rival the impact of the Bolt! message in promoting water as an important choice for the qualities that Curry represents as an athlete and celebrity (Figure 25).



*Figure 25. Stephen Curry promoting drinking water.*

<sup>27</sup> [http://www.espn.com/nba/story/\\_/id/14382337/stephen-curry-golden-state-warriors-signs-endorsement-deal-brita](http://www.espn.com/nba/story/_/id/14382337/stephen-curry-golden-state-warriors-signs-endorsement-deal-brita)



## 10. Execution and Launch of the Campaign

The evening before the campaign, Mrs. Obama issued a press release about the launch to take place the following day in Watertown, Wisconsin:

### **First Lady Michelle Obama to Ask Everyone to “Drink Up” with More Water**

#### ***Mrs. Obama will join the Partnership for a Healthier America and more than a dozen organizations to announce new effort to promote drinking more water***

Washington, DC – Today, First Lady Michelle Obama will join the Partnership for a Healthier America (PHA) and actress Eva Longoria in Watertown, Wisconsin to announce PHA’s new effort to encourage everyone to drink more water, an easy choice to improve health and well-being every day. The effort brings together more than a dozen organizations committed to encouraging everyone to drink more water more often. According to the CDC, approximately one fourth of children do not drink any water on a given day. This new effort will remind people that drinking more water helps you have more energy to do more, longer and with better focus.

“Since we started the *Let’s Move!* initiative, I’ve been looking for as many ways as possible to help families and kids lead healthier lives. I’ve come to realize that if we were going to take just one step to make ourselves and our families healthier, probably the single best thing we could do is to simply drink more water,” said First Lady Michelle Obama. “That’s it – it’s really that simple. Drink just one more glass of water a day and you can make a real difference for your health, your energy, and the way you feel. So Drink Up and see for yourself.”

To remind families of the importance of drinking water, supporters of PHA’s effort will carry the Drink Up logo on nearly 300 million packs of bottled water; more than half a billion bottles of water; 200,000 packages of reusable bottles; and more than 10,000 reusable bottles in the next year. Additionally, more than 10,000 outdoor public taps are expected to carry the brand over the next few years. Cities will also be utilizing the logo to encourage people to drink more tap water. And hosts on a dozen TV shows are participating in an around the clock, cross-network, bilingual day of drinking water and encouraging their audience to Drink Up.

“PHA was launched a few short years ago to engage the private sector in helping make the healthy choice the easy choice for busy parents and families. Drinking more water is an easy choice that nearly every one of us—regardless of where we live, what we do, or how busy we are—can make every day,” said PHA CEO Lawrence A. Soler. “We applaud the efforts of the supporters who have joined us today, and we thank them for their contributions to an effort that we hope will serve as a continual reminder that you are what you drink, and when you drink water, you Drink Up.”

PHA will be asking people across the country to visit [www.youarewhatyoudrink.org](http://www.youarewhatyoudrink.org) to upload pictures of themselves drinking water, or find the campaign on Instagram ([www.instagram.com/urH2O](http://www.instagram.com/urH2O)), tagging their pictures #drinkH2O. During the event, the First Lady will lead 2,000 Watertown High School students and community members in a “Drink Up” toast, and then participate in festival-like water games alongside students.

“Lots of people want to live healthier, but life gets busy and sometimes making the healthier choice can seem difficult,” said actress Eva Longoria. “Drinking more water



is a simple, easy choice that most people can make every day. I'm thrilled that so many organizations have come together today to help remind people that you are what you drink, and drinking water is you at your best.”

Organizations that have committed to encourage everyone to drink more water more often include:

**Marketing, Research and Creative:** To encourage and remind people to Drink Up, PHA brought together research, marketing, and creative talents to help create and promote its message, including Young & Rubicam, Buck, Antfood, Nielsen, Proclivity Media, VML, and Core Strategies.

**Water filter and reusable water bottle companies:** BRITA is adding the Drink Up logo to packages that contain its re-usable filtering bottles. Through a partnership with NBC's The Biggest Loser, BRITA is also promoting the Drink Up message on one of the most popular TV shows on air. SOMA will help promote the effort through social and digital publicity. S'Well Bottle will promote Drink Up digitally and will add the logo to bottles.

**Municipalities:** Los Angeles County, Chicago, Houston and Watertown, Wisconsin will use the PHA creative in numerous ways to inspire their residents to drink more water. They will place the logo and PSAs on busses and bus stops, in municipal buildings and other places to encourage people to drink more water.

**Public drinking stations:** GLOBALTAP will launch a specially designed bottle and filling station for schools and public locations featuring the Drink Up colors and logos. For every public tap station GLOBALTAP installs, one Drink Up tap station will be donated by GLOBALTAP at no charge to a local school. GLOBALTAP plans to have more than 10,000 taps in public locations, and schools within the next few years. Smart Tap will use a unique form of out-of-home marketing by adding the Drink Up logo to its taps, as well as promoting Drink Up messages through social media and other efforts.

**Bottled water brands:** Aquafina, BEVERLY HILLS 9OH2O, DASANI, EVIAN Natural Spring Water, Hint, Voss, WAT-AAH!, and Nestlé Waters brands (North America's Arrowhead, Deer Park, Ice Mountain, Nestlé Pure Life, Ozarka, Poland Spring, resource and Zephyrhills) will be promoting the Drink Up message on products, through public events, via digital, print, social and out of home media efforts and other publicity.

**Industry groups, foundations, nonprofits and media companies:** The American Beverage Association and International Bottled Water Association are promoting the effort, while the California Endowment and PVBLIC Foundation are providing financial support for the PHA initiative. Additionally, Food Corps will incorporate messaging from this effort into schools nationwide. Unite4:Good, Cooking Light, MyRecipes, BlogHer, Inc., Disney and Nickelodeon will also promote drinking more water.

For complete information about the PHA effort, visit

**[www.youarewhatyoudrink.org](http://www.youarewhatyoudrink.org)**<sup>28</sup>

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<sup>28</sup> <https://obamawhitehouse.archives.gov/the-press-office/2013/09/12/first-lady-michelle-obama-ask-everyone-drink-more-water>





For maximum impact and visibility, the campaign launch was orchestrated by the Mrs. Obama's event team at the White House working with PHA. As described in the press release above, the event included the actress Eva Longoria, and took place at a high school with 2000 students in Watertown, Wisconsin. Watertown was chosen to be the launch site because of its name, which has an obvious connection to the campaign message.

National and local media were in strong attendance, and 300 invited guests were in the audience for the announcement. On the stage where Mrs. Obama announced the launch of the campaign, representatives from each of the stakeholders engaged in the campaign were thanked for their participation and their important contribution to this public awareness campaign. Included in that thanks were senior executives from the water divisions of Coca-Cola, PepsiCo, Nestlé and executives from two of their industry associations, the American Beverage Association and the International Bottled Water Association. Smaller emerging brands, Voss, Hint, WAT-AAH, 90H20, and others were also on stage. Representatives from the research team, the creative team, foundation supporters of the campaign, and a number of stakeholders, such as representatives from municipal water authorities, companies that install public drinking stations, and the bottled water filter company Brita, were also included.

Multiple federal government agencies were also participants in the campaign, including the CDC and the EPA, who had been involved to address issues related not only to the benefits of water but also to water safety, access, and consumption rates. There were also some unlikely participants among the multiple stakeholders included in Mrs. Obama's thanks: fashion designers Donna Karan, Diane von Furstenberg and J. Crew had all been engaged to design limited-edition T-shirts featuring creative interpretations of the official campaign logo and tagline.

The day of the campaign also included pre-taped appearances by Mrs. Obama on all of the breakfast morning news shows, as well as the midday and late-night programs. The individually scripted and pre-taped message was slightly different for each show, but generally it announced the launch of the campaign and included having pre-placed Drink Up water glasses with the Drink Up logo, which each of the hosts and co-hosts held as part of their participation in a theme of drinking water. These water glasses were specifically created and manufactured for the campaign. In following days and weeks, Mrs. Obama also appeared in person on many of the daytime and late-night shows to discuss the campaign, either in serious or playful tones.

The narrative for the taped morning messages closely followed the narrative of the animated video. Here is an example of the narrative from the NBC morning program the *TODAY* show: *"Today I'm working to inspire Americans from all across the country to drink more water," Obama said. "That's why I've stolen Matt and Savannah's mugs and exchanged them with water glasses. Water is the best and easiest choice we can make to feel energized, focused, healthy and refreshed. You are what you drink, and when you drink water, you're at your best, so drink up."*<sup>29</sup>

In advance of Mrs. Obama's taped appearance, on the previous day, the staff director of Let's Move, Sam Kass, had briefed reporters on the motivation for the campaign, citing data from the CDC that one in four children do not drink water on a daily basis and that 43 percent of Americans drink fewer than four cups of water a day. He also noted that the campaign was seeking to accentuate the positives of water consumption for overall health. He said, "We think people respond really well to

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<sup>29</sup> <https://www.today.com/news/michelle-obama-today-drink-more-water-america-8C11137698>



positive messages,” and “water is the simplest, most accessible choice people can make if they are trying to make a healthy choice. Encouraging that is the most effective strategy.”<sup>30</sup>

The Drink Up website and related social media campaigns also launched the day of the campaign. To increase engagement with the website, the campaign asked that people take a photo of themselves with water, showing the way they like to drink it, and post it to the social media site Instagram under a designated hashtag. This technique is a variation of a method developed by Gerald Zaltman, called the Zaltman Metaphor Elicitation Technique (ZMET), which has consumers use pictures to describe difficult-to-express thoughts and feelings about products.<sup>31</sup>

The campaign also had a Facebook and Twitter account all linked together by the tag “You Are What You Drink.” Each of the companies, NGOs, and municipalities that had signed on to the Drink Up campaign also had a presence on the official website with their logos and links to their own websites included.

## 11. Campaign results

Recall that the three-part aim of this campaign was to achieve and then track *reach*, *resonance*, and *reaction*. The innovation in the Nielsen measurement centred largely on an understanding of the relationship between the television and social media amplification generated by the earned media. It is important to remember that Drink Up was essentially an ‘advertisement’ or awareness campaign for a brand category, not for a specific product. As a category, water is very broad, and there already existed a high level of public awareness.

The main avenues for reaching the audience were television, online advertising, place-based advertising, and social media. Each of these mediums would act as reinforcement for the other, creating a general ‘surround sound’ or ‘echo chamber’ of the message. In addition, there were other, less traditional purveyors of the message: a nationally traveling street art campaign, a pop-up concert the summer after the campaign launched, and multiple YouTube videos with hip-hop or other popular artists.

Initial campaign measurement, for which there are the robust data summarized in this case study, took place between September 12, 2013 and December 31, 2014.

### 11.1 Television reach combined with social media

Media market researchers have seen a substantial change in the way people view television over the last ten years. Often, we are watching television while at the same time looking at least one other screen, our computer, tablet or phone. And we are commenting in real time. Nielsen worked to capture the role that the earned media appearances of Mrs. Obama would have on the social discussion of the Drink Up campaign. It was an innovation of the campaign to measure the amount of social media, via Twitter, generated by the First Lady’s appearance.

The campaign’s television debut in that third quarter of 2013 had the cumulative impact of reaching 61 million people, most of them between the ages of 35 and 64 (Figure 26). Overall, the social media ‘buzz’ about Drink Up was very small. Less than 1 percent of viewers of most of the programs

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<sup>30</sup> <https://abcnews.go.com/GMA/video/drink-michelle-obama-gma-20242423>

<sup>31</sup> Zaltman, G., & Zaltman, L. (2008). *Marketing metaphoria: What deep metaphors reveal about the minds of consumers*. Boston, MA: Harvard Business; Coulter, R. A., Zaltman, G., and Coulter, K. S. (2001), Interpreting consumer perceptions of advertising: An application of the Zaltman Metaphor Elicitation Technique. *Journal of Advertising*, 30(4), 1-21.



tweeted about the campaign. The appearances on the daytime programs (those programs airing in the middle of the day), generated the highest rate of social media reaction (Figure 27).

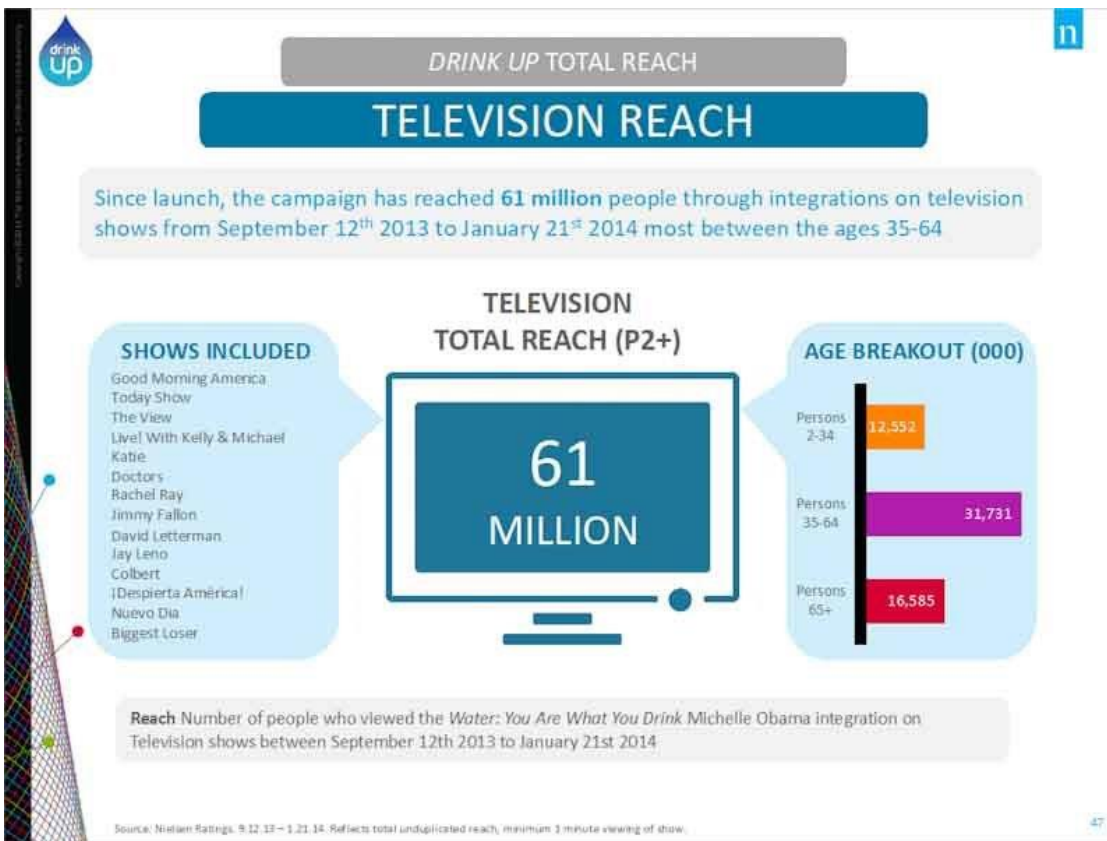


Figure 26. Total campaign reach with television audience.

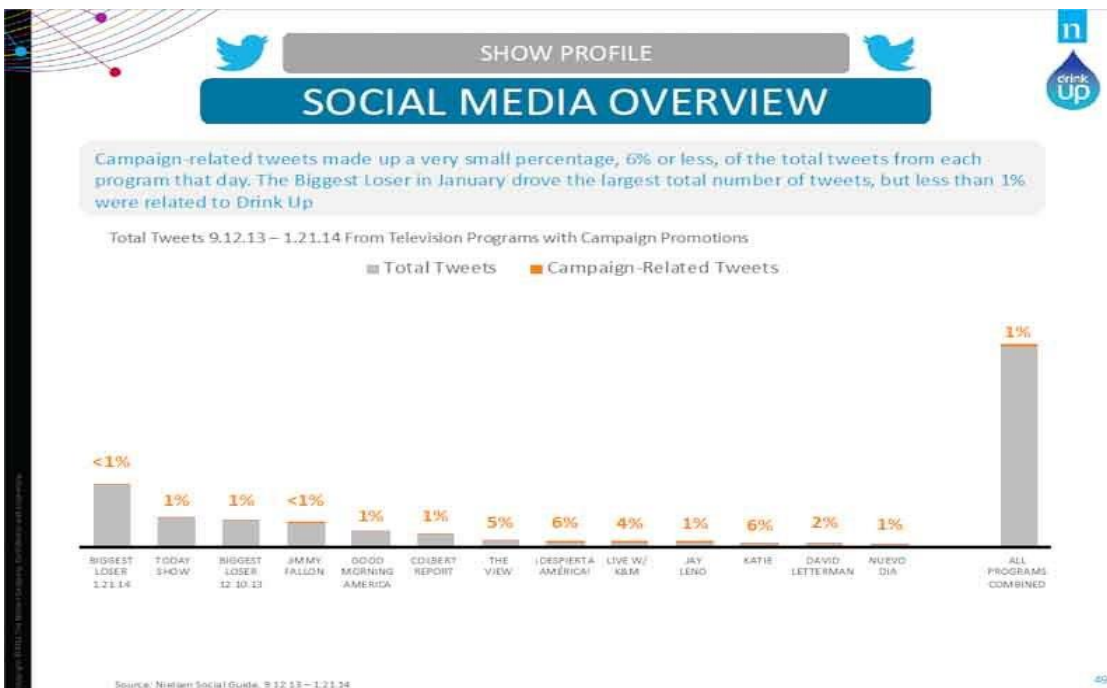


Figure 27. Show profile: campaign reach with social media audience.

The content of the tweets was neutral for the most part, except on late-night television programming, where the campaign analyst discovered that the humour and sarcasm of the late-night television



genre was often misinterpreted or misunderstood by the audiences, thus distorting the campaign’s intended message.

One of the most successful donated media placements for the campaign occurred when the FLOTUS staff, in conjunction with the PHA marketing team, arranged to have the Drink Up messaging appear embedded as part of very popular ‘prime time’<sup>32</sup> television program called *The Biggest Loser*. *The Biggest Loser* was a reality television show in which overweight or obese people competed with each other to try to lose the most weight. Each contestant was coached by nutritionists and exercise coaches, and the program followed their progress over the course of a 13-week season.

The Drink Up campaign appeared twice on this popular national television program, once on December 10, 2013 and again on January 21, 2014. In the first appearance, the host of the program announced that *The Biggest Loser* had teamed up with PHA to encourage people to drink more water; a video clip of Mrs. Obama promoting the campaign was shown. In the second appearance, the host of the program announced that Eva Longoria, the popular American actress who had also participated in the launch in Watertown, had designed a limited-edition Brita bottle with the Drink Up logo. Contestants on *The Biggest Loser* were filmed drinking water from their Drink Up bottle during their makeovers, and a stylist for the program posed with a bottle in a photo displayed during the show. With the pre-taped appearance of Michelle Obama, the December 10 episode of *The Biggest Loser* had the second highest viewership and drove a significant number of campaign-related tweets on Twitter (Figure 28).

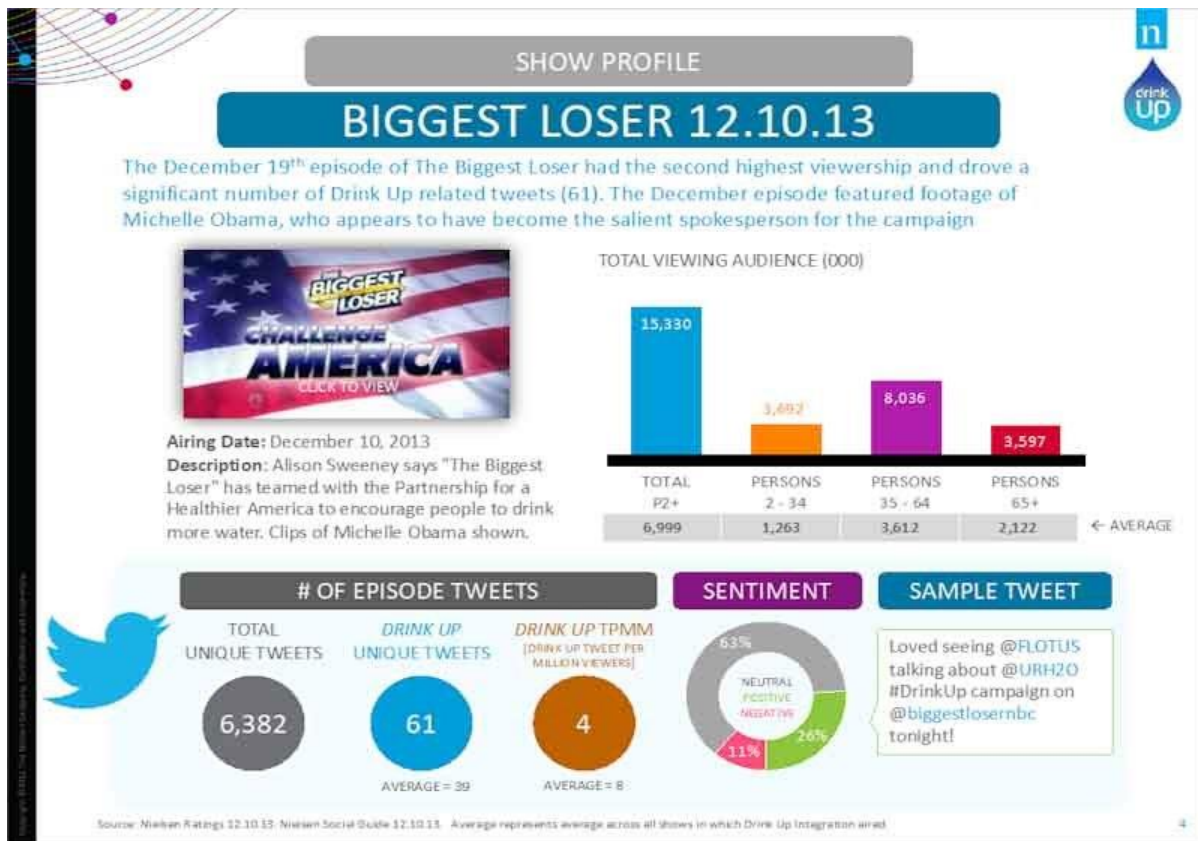


Figure 28. Show profile: *Biggest Loser* episode featuring Michelle Obama for Drink Up.

<sup>32</sup> Prime time refers to evening television programming airing between 8 pm and 11 pm.



A subsequent episode of *The Biggest Loser* in which Drink Up was promoted, on January 21, had an even higher viewership, but content in the show, featuring a makeover of contestants, drove the majority of social media discussion around the program and tweets about Drink Up were fewer than in the earlier show (Figure 29).

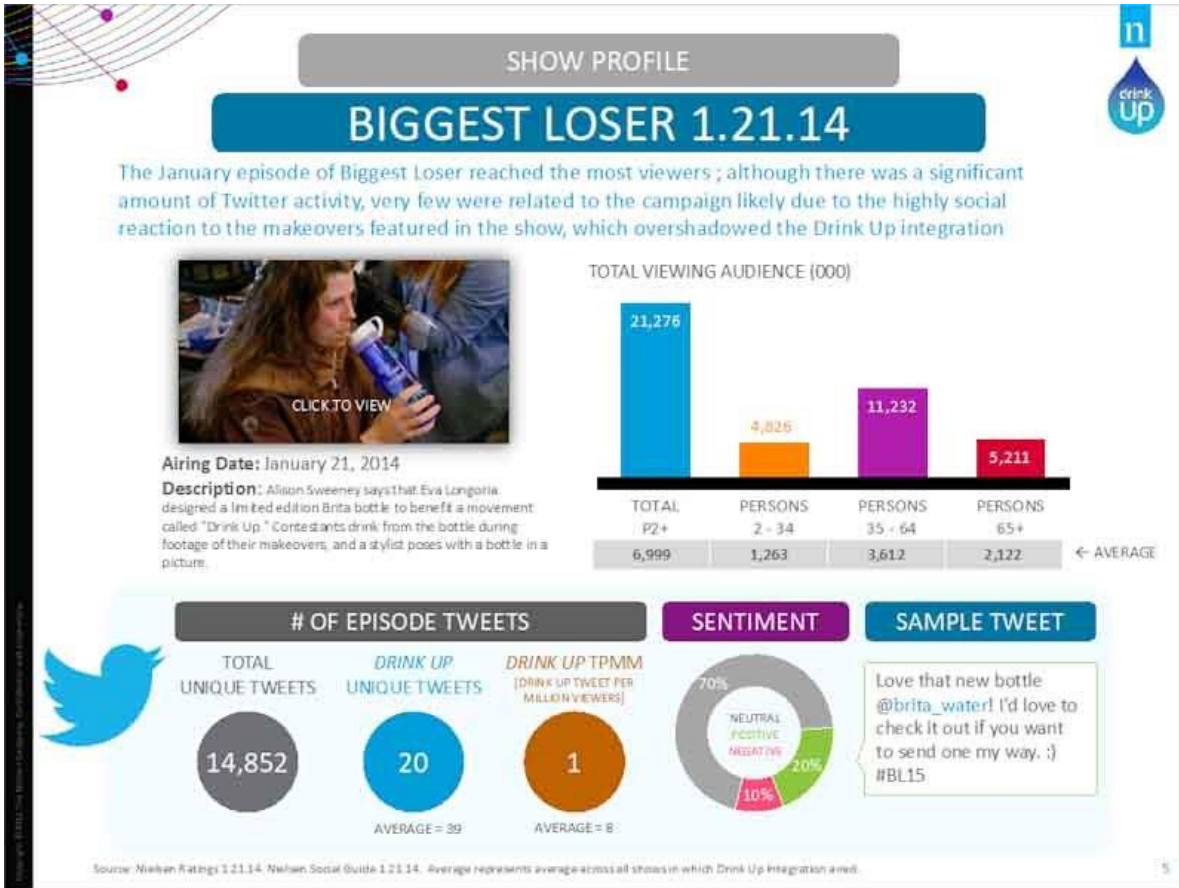


Figure 29. Show profile: January 2014 episode of Biggest Loser featuring Drink Up.

## 11.2 Online advertising: Reach and frequency

The initial Drink Up online advertisements created by Y&R (known in the industry as 'creatives') were of the type called banner ads.

Advertising effectiveness (as with television ad effectiveness) is measured by the number of impressions delivered to the audience it seeks to *reach*, and the *frequency* with which that audience has viewed the ad. Nielsen's online metrics have been designed to find a measurement that has comparability to television ratings in order to give advertisers an understanding of the differences and similarities of the two mediums, and also to measure unduplicated reach of audiences. This has been especially important as video viewing has migrated from the traditional television appliance to mobile devices, personal computers, tablets, and phones.

The measurement of the online audience also has the advantage of providing a very granular analysis of the extent to which those ad exposures created resonance; as a result, the client can answer the most salient question of whether those ads are leading to online search and purchase activity.

As mentioned earlier, *resonance* is the measure of qualitative impact, including recall and intent and a host of other measurements, including the ability of the campaign to be remembered and liked, as



well as to motivate the viewer to purchase water. Resonance was measured so that the team could get an early understanding of whether the creative visuals were having the intended impact on the target audience. The target age range was 13-49 years in the target segments outlined earlier.

Nielsen’s partner Proclivity Media, working with PHA, identified publishers who would in turn identify sites that would be willing to donate banner ad space for the creative visuals of the campaign. The advertising space was scheduled to appear on sites where the target audience could most likely be expected to visit. Drink Up campaign ads were created in three separate sizes with slightly different wording in some of the ads. The sizes were: 300 x 250, 160 x 600, and 728 x 90 pixels, and were placed with four publishers: BlogHer, ValueClick, My Recipes, and Proclivity Media, which in addition to working with the others, also operated its own publishing site. Each of these sites was tasked with finding target audiences within the target segments across the Internet.

The reach and frequency of the campaign grew steadily from the time of campaign launch, but publishers had differing levels of effectiveness in reaching the intended audience. Nielsen’s OCR report outlined the impact of the campaign from the September 13, 2013 launch to December 31, 2013, when online tracking was discontinued. At the time the campaign was launched, 50 percent of the population of the United States was in the target age range, 13-49 years old. The campaign delivered 18 million impressions (Figure 30). This means that 18 million people saw the campaign, with 13.6 million of those impressions reaching the target demographic (13-49 y.o.).

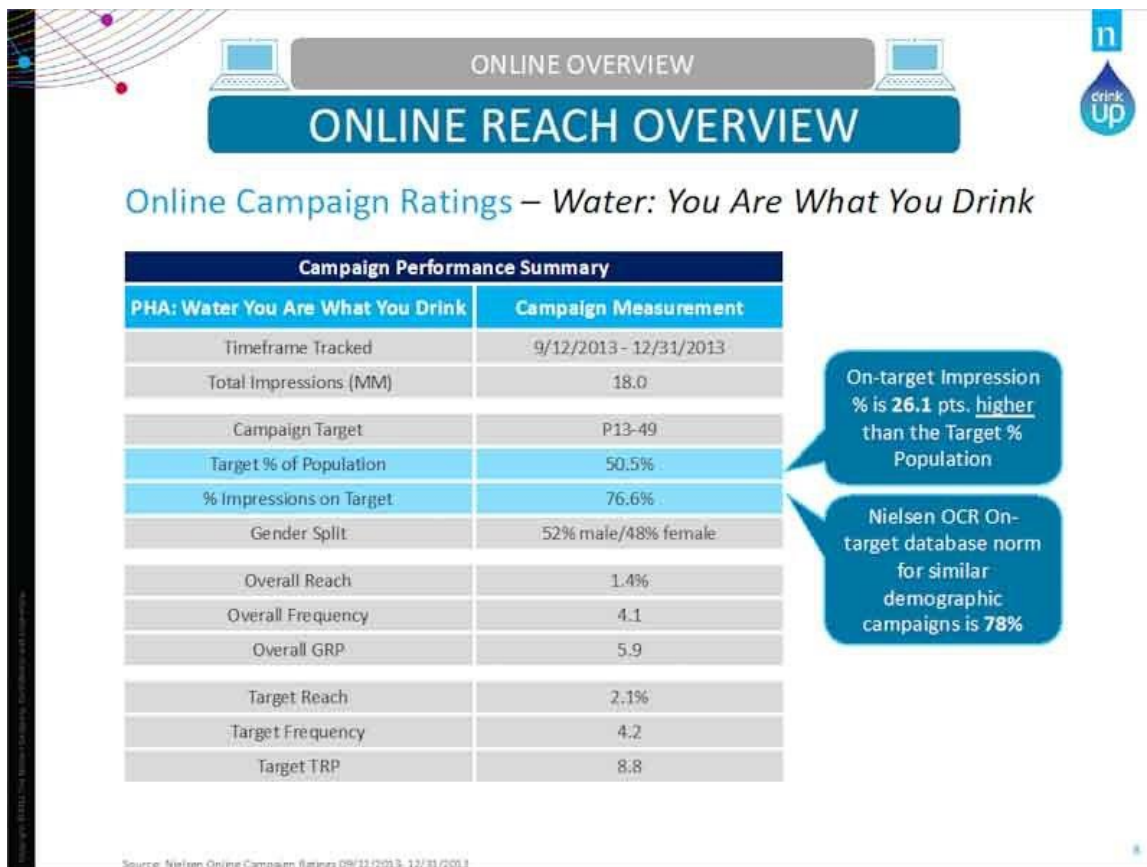


Figure 30. Online overview: data on campaign reach with online audience.



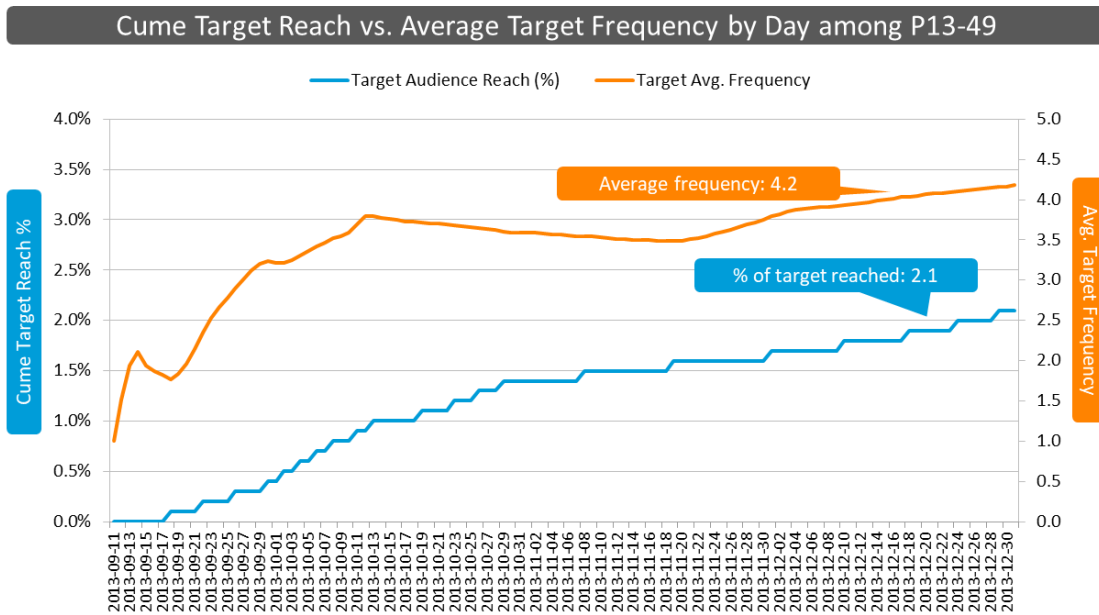
The Drink Up campaign ads reached 76 percent of its target population. The on-target norm for similarly targeted campaigns was 78 percent. The reach of the campaign means that 2.1 percent of all Americans saw the campaign. Persons in the target group saw the ad an average of 4.2 times. Men received a slightly higher number of impressions than women, and 18-34-year-old men viewed the ad with more frequency (Figure 31).

## ONLINE OVERVIEW

# ONLINE REACH + FREQUENCY



Reach has grown steadily throughout the campaign; average frequency has remained fairly consistent around 4 since mid-October



Source: Nielsen Online Campaign Ratings 09/11/2013-12/31/2013

Figure 31. Online reach and frequency: target vs actual.

The location of banner ads on the page as it loaded on to a website’s page on the computer, mobile phone or tablet device, was essential to the viewer’s experience of the ad, and how it would register and create awareness. In order to register, the ad must be ‘in view.’ In other words in order to register, the ads must be viewable, but with some sites and formats, this is not always the case.

Of the four publishers, while Proclivity best reached the target audience with 82 percent of ads on target, it reached the same viewers multiple times and had many ads that were unseen as the page loaded. On the other hand, MyRecipes.com, which at 65 percent was farthest from the goal for reaching its target audience, managed to deliver the most in-view ads when the page loaded on the device (Figure 32).

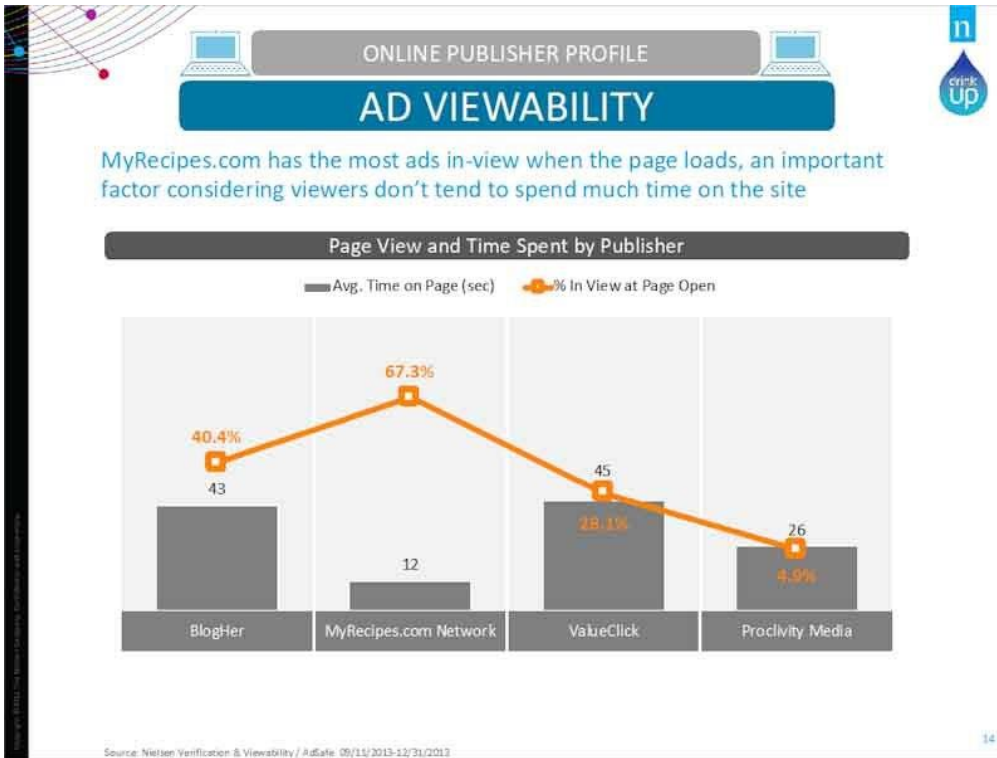


Figure 32. Online publisher profile: viewability of online ads on each site.

The campaign most often reached the **Eat Drink and Be Merrys**, followed by the **Well Beings** and then the **Fence Sitters** (see Figure 33).

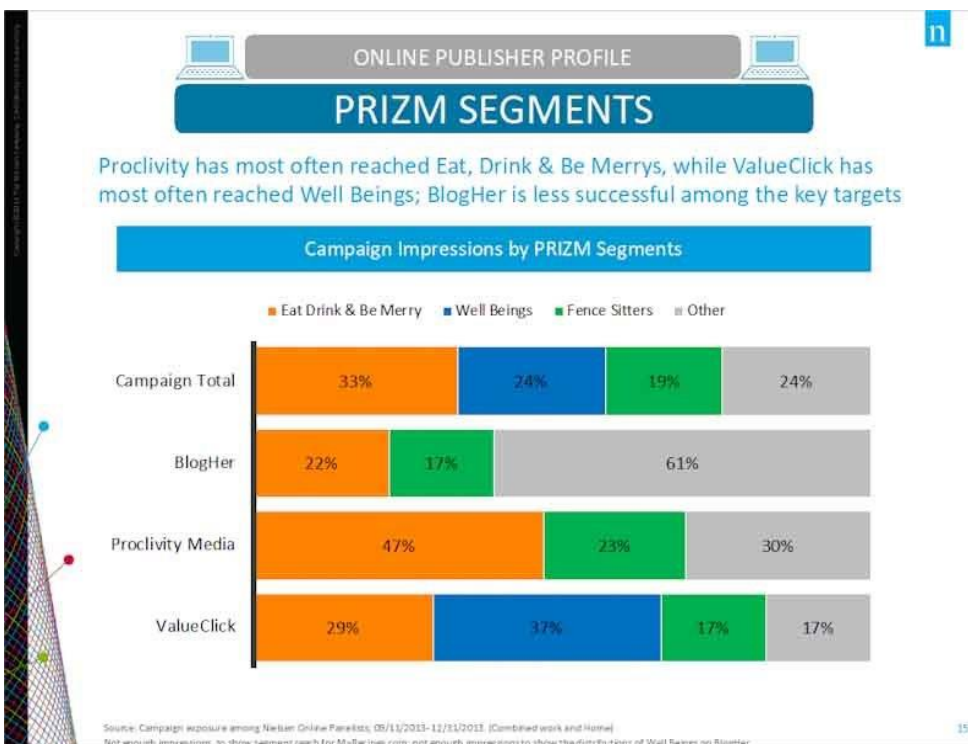


Figure 33. Online publisher profile: campaign impressions by PRIZM segments.





Within those three segments put together, the campaign primarily reached Caucasians (53%), followed by African Americans (23%), and about 18% of the campaign impressions were delivered to the Hispanic audience (see Figures 34 and 35).

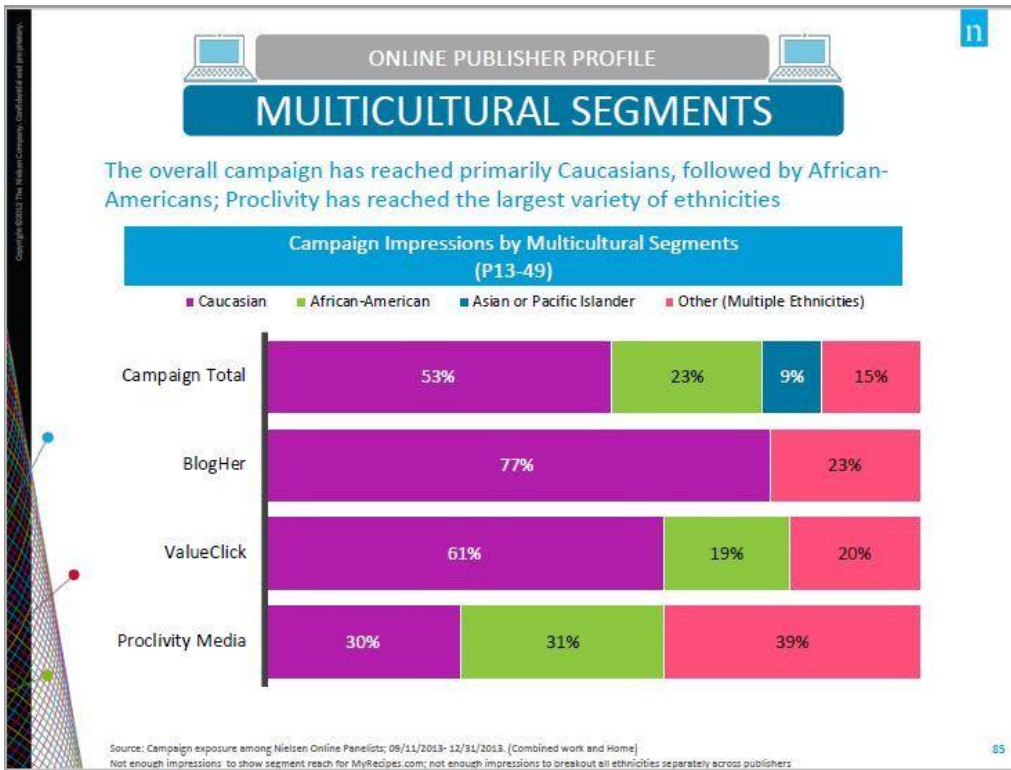


Figure 34. Online publisher profile: campaign impressions by multicultural segments.

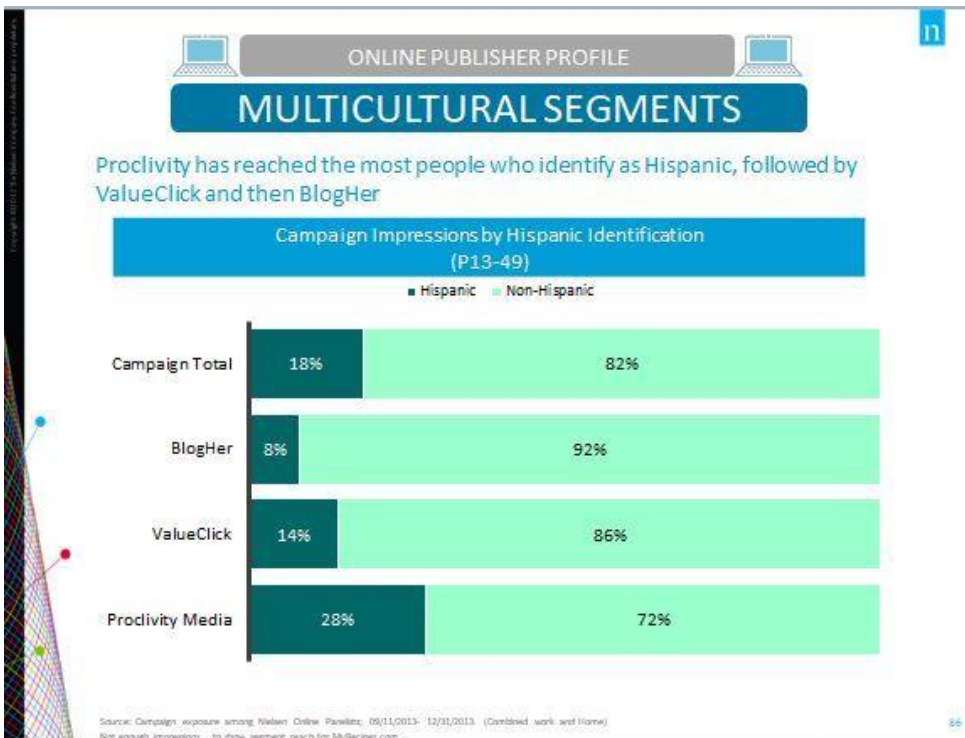


Figure 35. Online publisher profile: campaign impressions with Hispanic audience.



### 11.3 Online Resonance

Nielsen Brand Effect measured a variety of aspects of the resonance of the “You Are What You Drink/Drink Up” messaging. Looking at a control group and an exposed group, the Nielsen division measured the ‘lift’ that the message gave to the “drink more water” message and how it related to other positive lifestyle changes. Interestingly, the message also gave a lift to the concept of “Eat more fruits and vegetables.”

The research found that the ads achieved their peak impact after two exposures to the ad, after which impact levelled out (Figure 36).

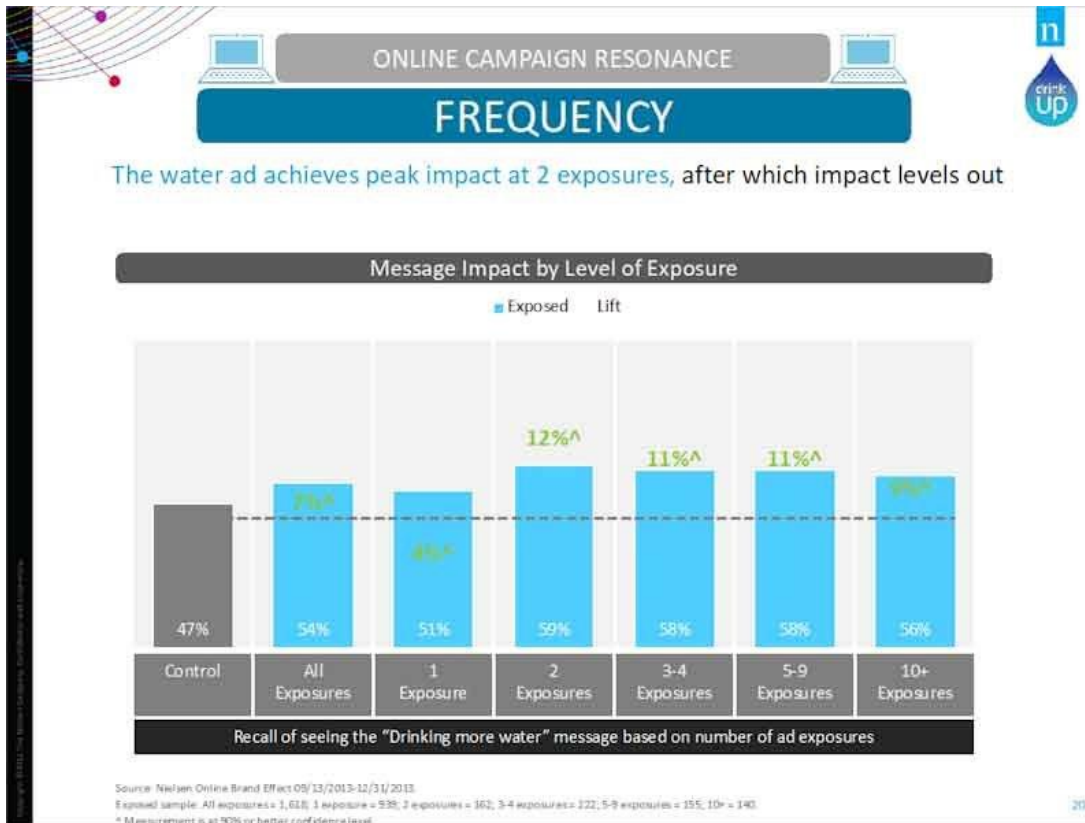


Figure 36. Online campaign resonance: frequency of exposure to campaign messaging.

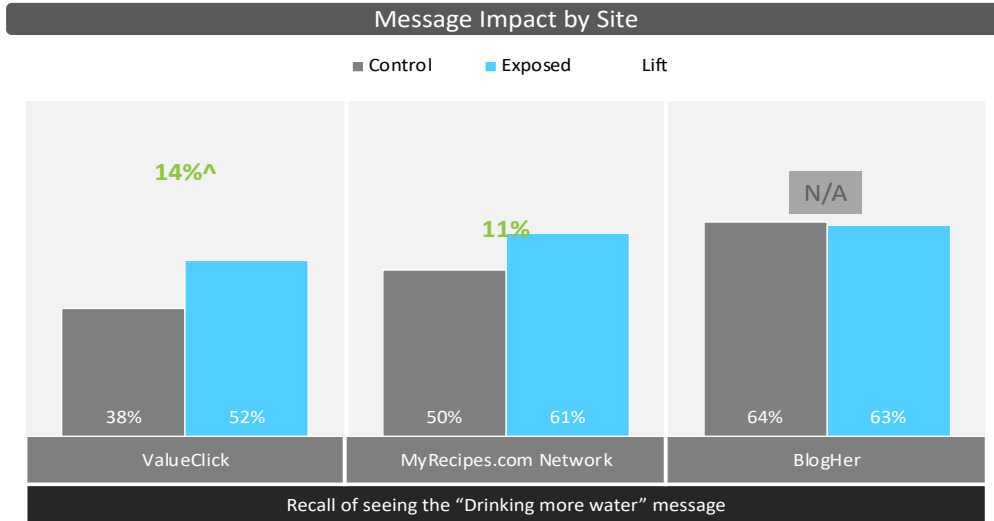


### ONLINE CAMPAIGN RESONANCE



ValueClick had the highest lift in awareness from campaign exposure, and also the highest proportion of key segments, supporting the targeting of this campaign

Similarly, BlogHer had the lowest percent of key targets, the highest control, and no lift from campaign exposure, suggesting that people frequenting BlogHer have a strong preexisting affinity toward water



Source: Nielsen Online Brand Effect 09/13/2013-12/31/2013. Proclivity not included due to unstable sample. ^ Measurement is at 90% or better confidence level. Exposed sample: ValueClick = 1,194; MyRecipes = 124; BlogHer = 247. Control sample: ValueClick = 50; MyRecipes = 99; BlogHer = 510.

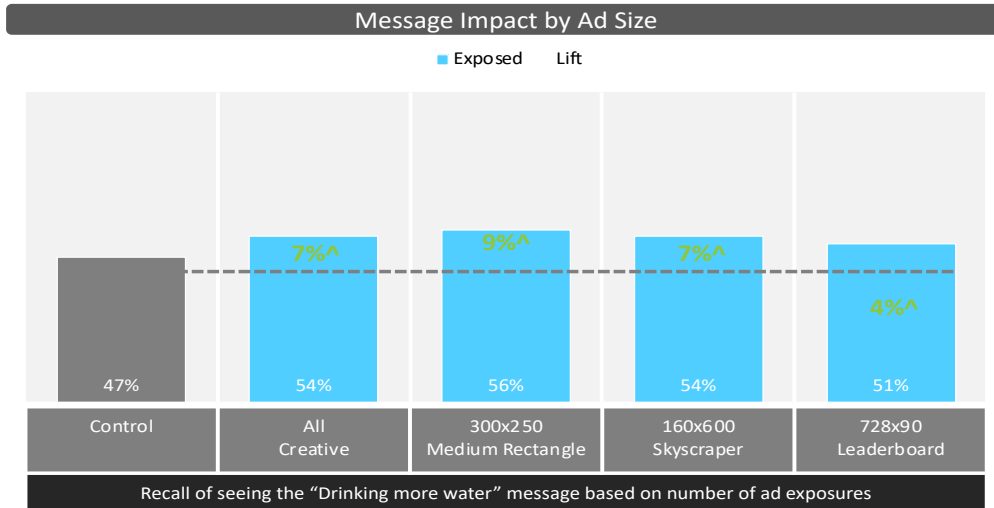
Figure 37. Online campaign resonance: message impact by site.

Interestingly, of all of the publishers, BlogHer, a site that caters to women bloggers, provided the least lift impact for the message (Figure 37), probably because that particular audience had started with a higher level of awareness. The size of the ads also mattered (Figure 38): while all sizes showed positive lift, the larger ad sizes (300x250 and 160x600) had more lift than the smallest (728x90).



# ONLINE CAMPAIGN RESONANCE AD SIZES

Exposure to all ad sizes showed a positive lift for the campaign, though the 300x250 and 160x600 had more lift than the 728x90



Source: Nielsen Online Brand Effect 09/13/2013-12/31/2013.  
Exposed sample: All creative = 1,618; 300x250 = 847; 160x600 = 555; 728x90 = 779.  
^ Measurement is at 90% or better confidence level.

Figure 38. Online campaign resonance: message impact by ad size.

The evaluation of resonance of the ads and their message provided a few unexpected results. The researchers found that awareness of water as a health benefit was already very high, limiting the potential impact of the campaign’s fundamental messaging. Viewers exposed to the campaign were not more likely to change their own water consumption behaviour, but said they were more likely to recommend drinking more water to others. A variety of segments targeted were more likely to recommend drinking water, including people in the 55+ age group, light water drinkers, men, and non-Caucasians. Another by-product of exposure to the campaign was a decreased likelihood of carbonated soda consumption, particularly among heavy soda drinkers.

However, recall or memorability of the ads themselves was extremely low because of the lack of attention-grabbing or unique messaging of the ads. The research looked at both aided and unaided awareness by asking two separate questions to a control and an exposed group:

1. When thinking about healthy activities, which personal health actions you can take come to mind? (open response)
2. Which of the following healthy activities have you heard about recently? (closed response)

As can be seen from the chart in Figure 39, the exposed group had only a 3-percent lift. The aided awareness was higher with a 5-percent lift.

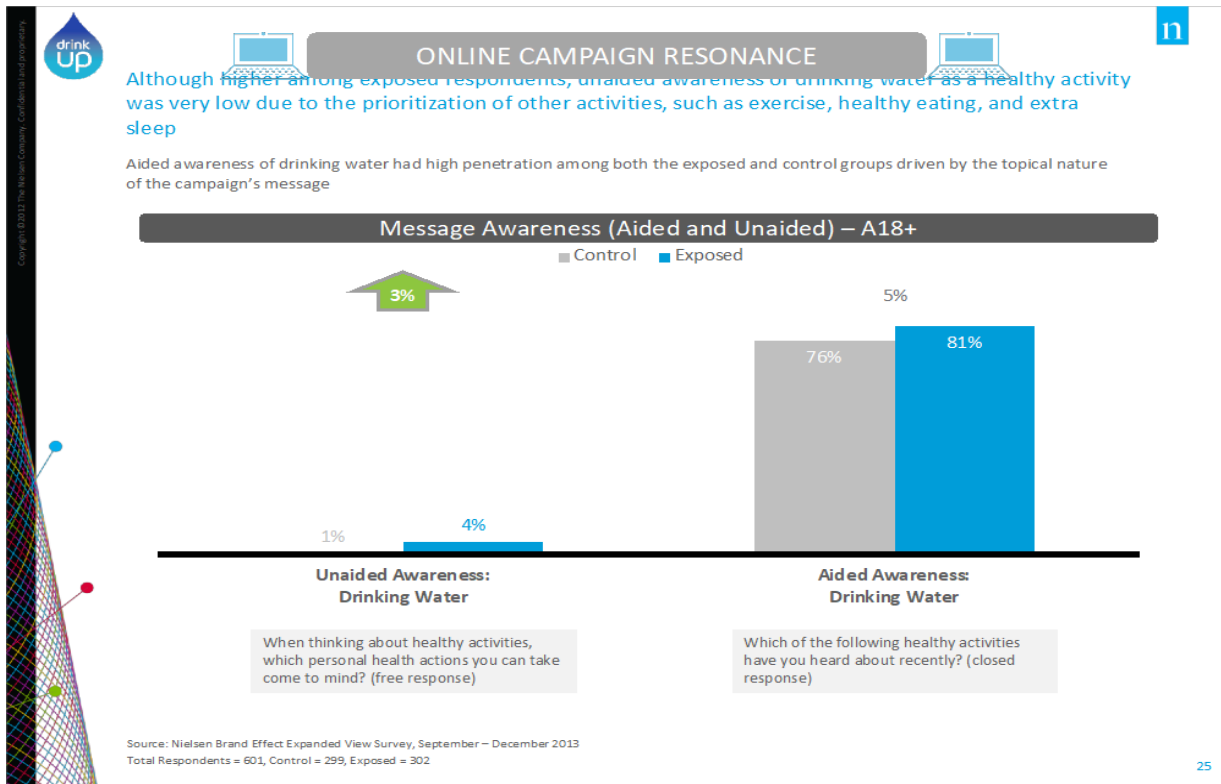


Figure 39. Online campaign resonance: message awareness – aided vs. unaided.

The researchers then posed further questions probing behavioural intention, as follows:

Usage intent: *How likely are you to consume more of each of the following products in the next 30 days?*

- Bottled water
- Tap water
- Soda
- Fruit juice
- Vegetable juice

Purchase intent: *How likely are you to purchase the following products in the next 30 days?*

- Bottled water
- Soda pop
- Fruit juice
- Vegetable juice

Brand recommendations: *How likely are you to recommend each of the following healthy activities to others in your life?*

- Drinking more water
- Eating more fruits and vegetables
- Getting regular preventative screenings
- Quitting smoking
- Buying more all natural/organic foods



Interestingly, recommendation intent increased among water drinkers of all levels, but the largest shift occurred among those who were currently drinking the least amount of water (Figure 40).

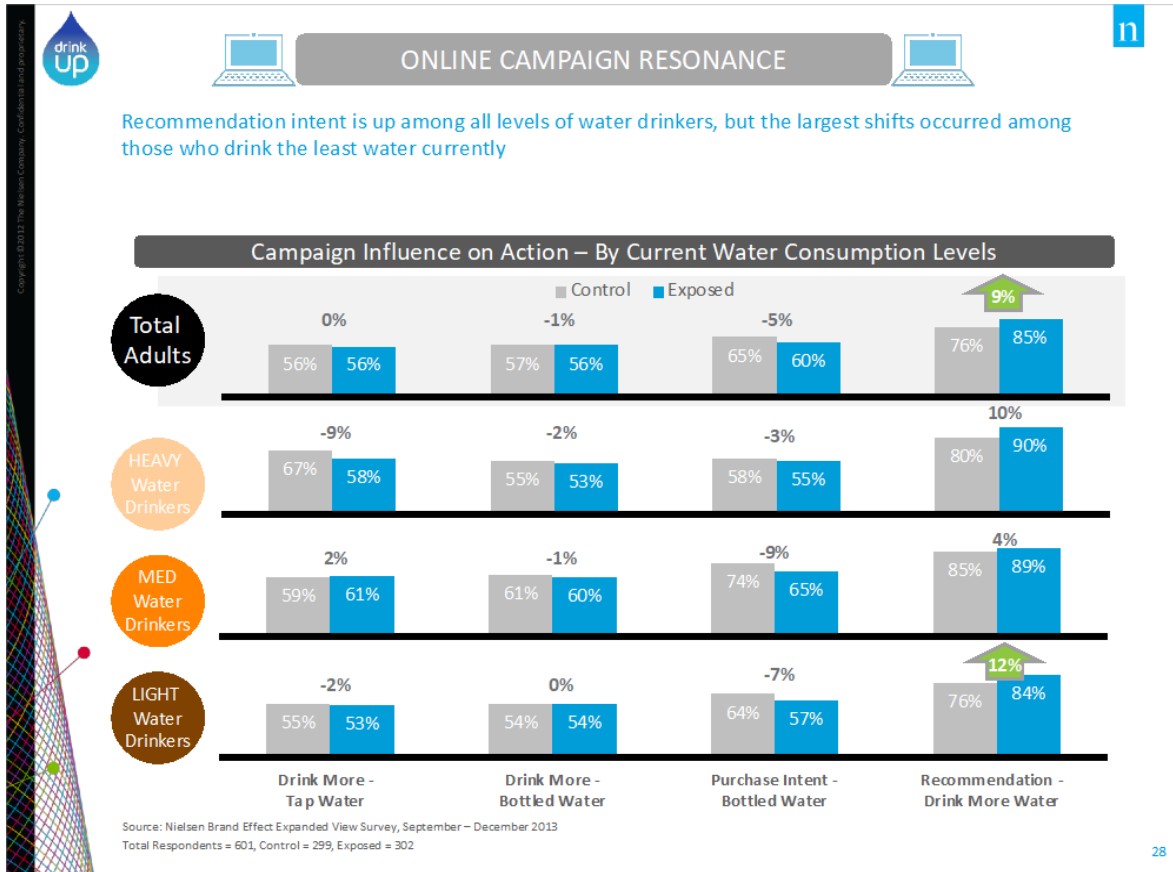


Figure 40. Online campaign resonance: influence on action by current consumption levels.

By targeted segment, however, campaign exposure had little impact on water consumption or recommendations in two of the targeted segments (Figure 41).

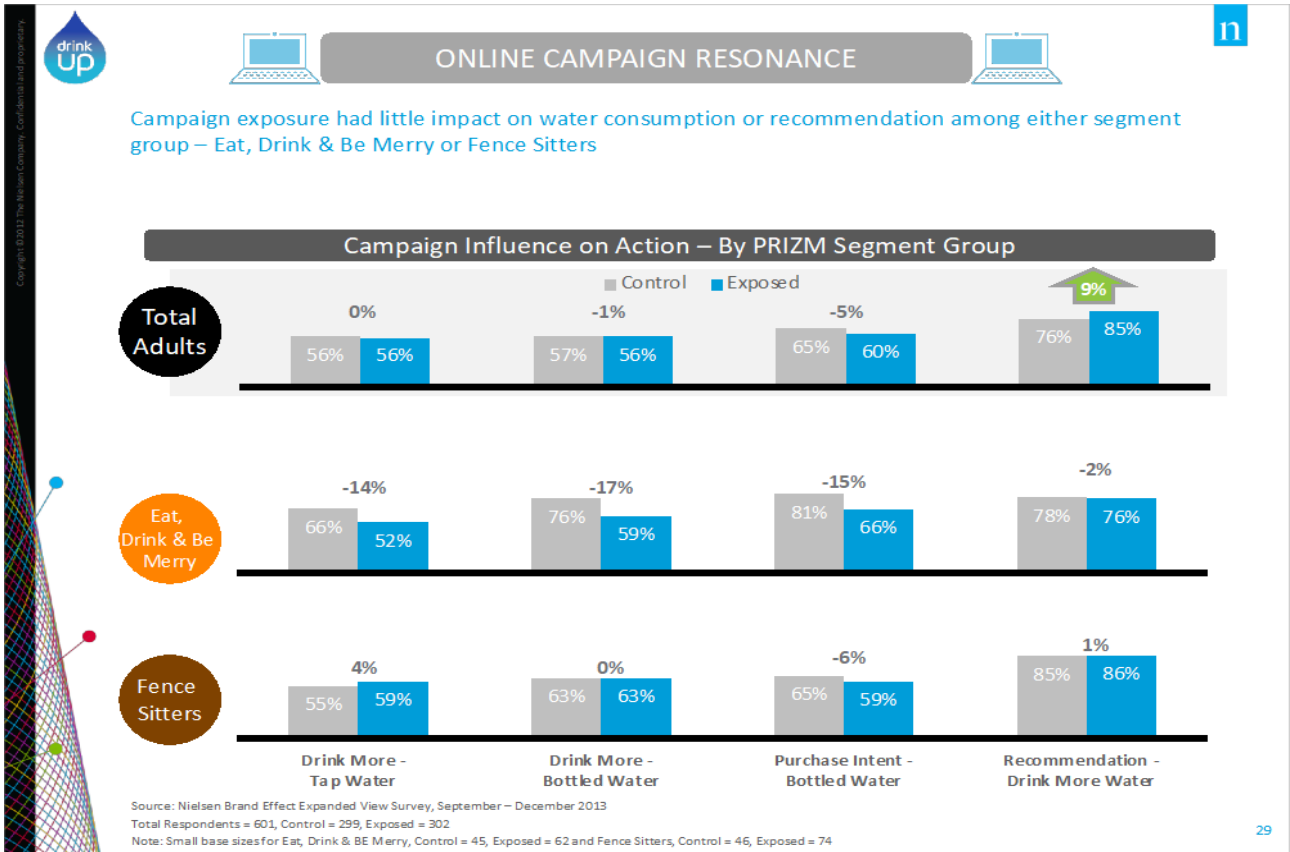


Figure 41. Online campaign resonance: influence on action by PRIZM segment.

The Brand Effect research posed a ‘custom question’ to understand whether the campaign impacted **the reason** why respondents drink water, by asking: *Which of the following best describes why you drink water? Even if no statement is exactly right, please select the one that comes closest to your mindset on drinking water.*

I drink water because

- I enjoy it
- I know it is healthy for me
- It was medically recommended
- I have to drink it to survive
- Other: (specify)

The “I know it is healthy for me” message registered a significant lift in those exposed to the campaign as compared to those respondents who were unexposed (Figure 42).

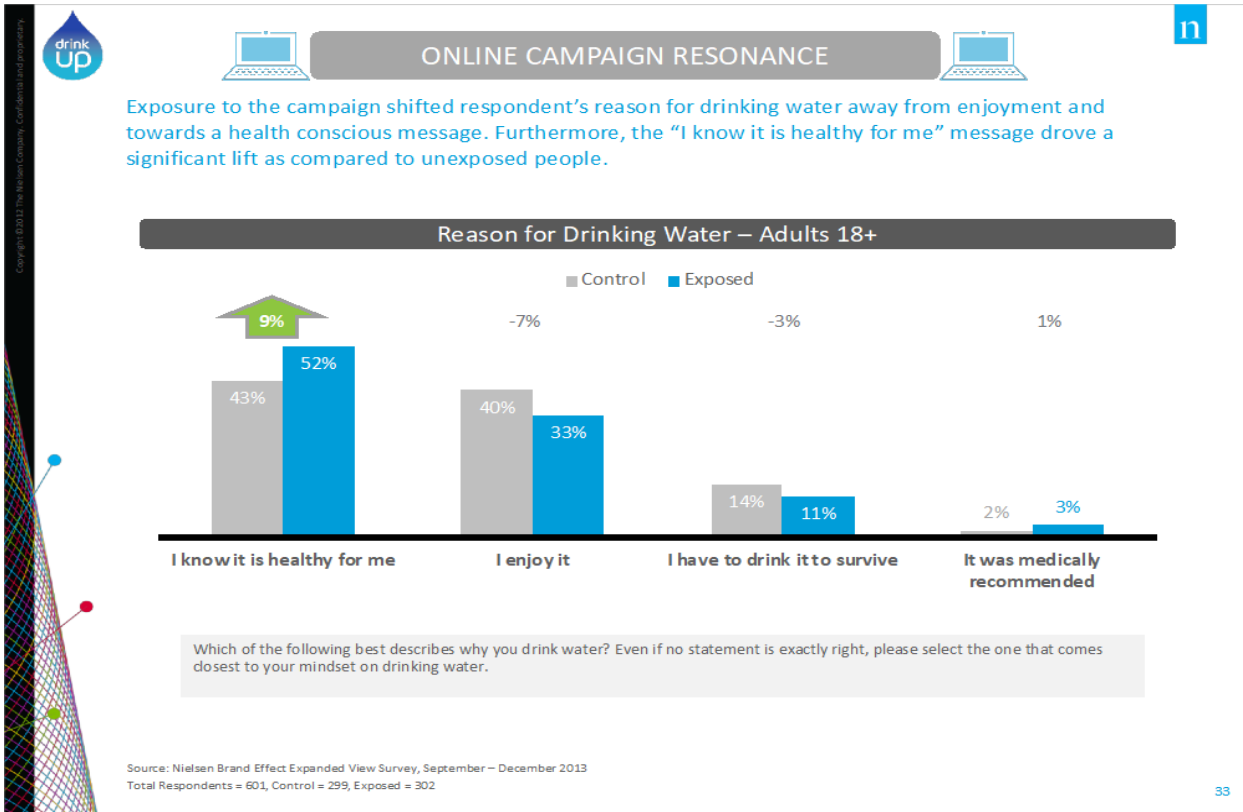


Figure 42. Online campaign resonance: reasons for drinking water.

While the campaign was unable to significantly influence viewers’ behaviour in terms of drinking more water, those exposed to the campaign who were heavy soda drinkers stated they were significantly less likely to consume more soda (Figure 43). This is an indication that the campaign worked in that it had an impact on the most vulnerable group.

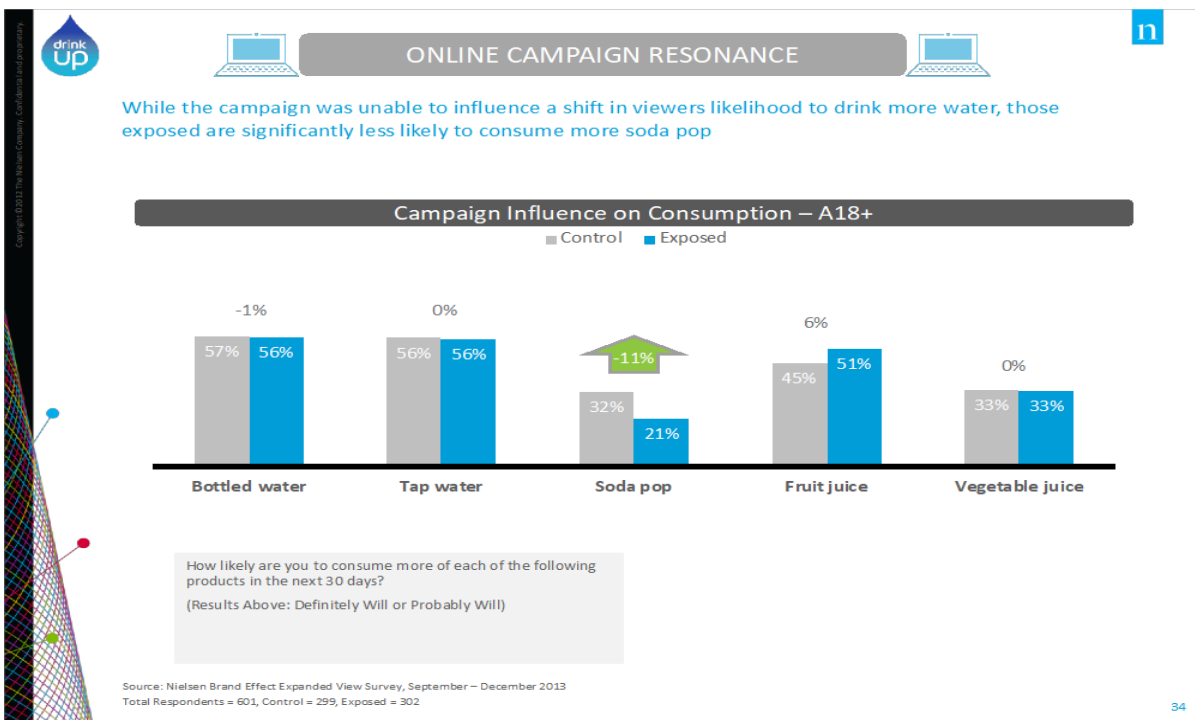


Figure 43. Online campaign resonance: influence on consumption.





Moreover, among those respondents identifying as light, medium, and heavy water drinkers, each group of those exposed versus those not exposed to the campaign said they were significantly less likely to consume more soda (Figure 44).

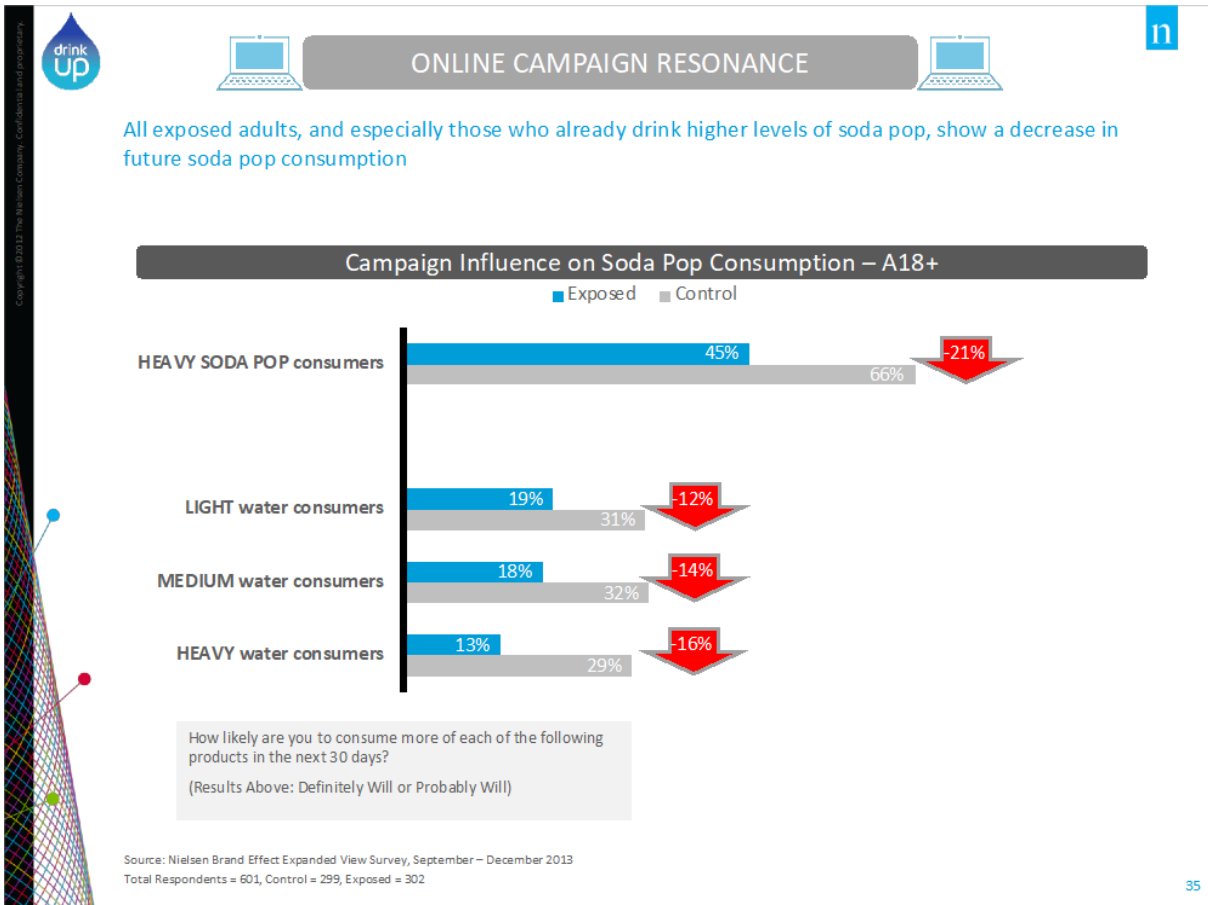


Figure 44. Online campaign resonance: influence on carbonated SSB consumption.

Research showed that the campaign message was also associated by the exposed group with a variety of other positive lifestyle changes, especially eating more fruits and vegetables (Figure 45).

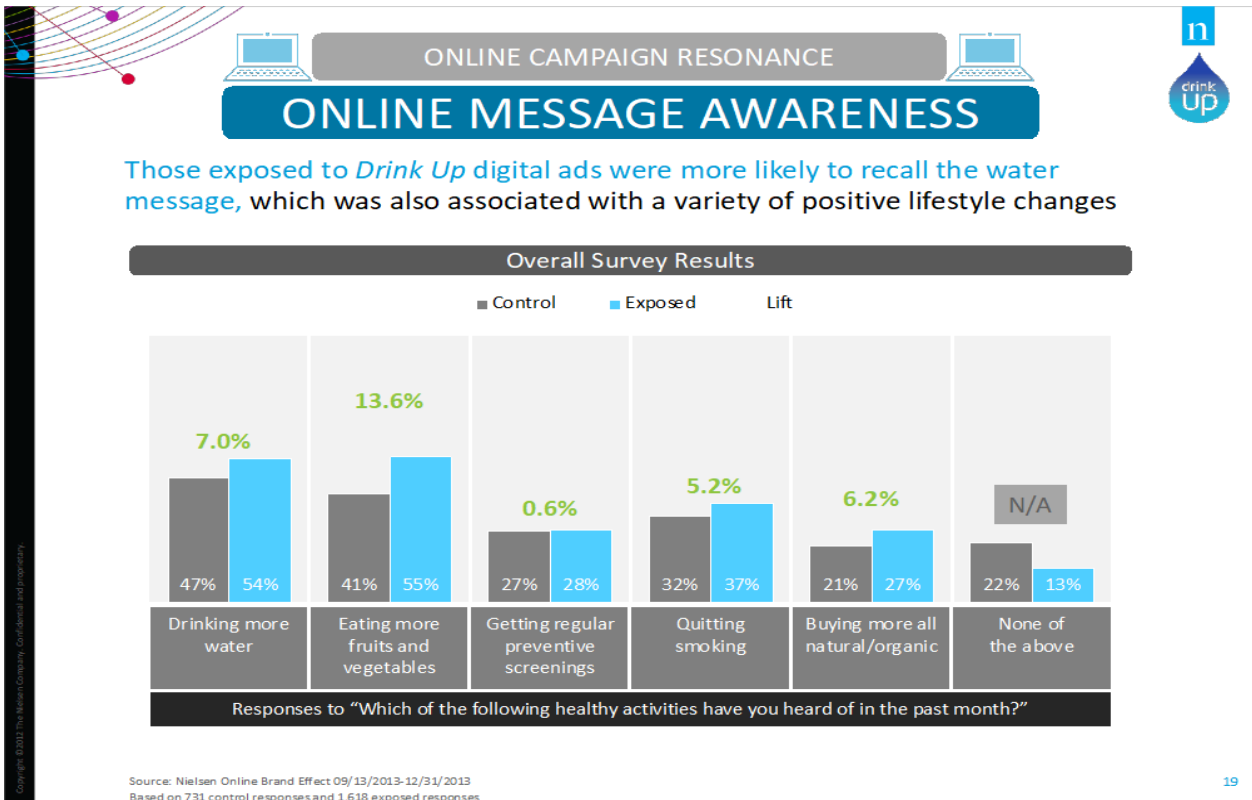


Figure 45. Online campaign resonance: message awareness.

But when it came time to determine whether the ad visuals were able to stand on their own as a slogan that could clearly be associated in the minds of the audience with the message of the campaign, the team discovered a place where the campaign needed improvement. Aided awareness of the “drink more water” **message** was high, but specific **ad recall** was very low, indicative of the ad’s inability to catch and impact viewer attention. The research methodology demonstrated this by asking viewers whether in the last 24 hours they had seen an ad about drinking water. Neither the control group nor the exposed group’s unaided awareness was very high. In fact, the percentage of the unexposed group responding that they had seen an ad was slightly *higher* than for the exposed group (Figure 46).

Nevertheless, **message** awareness of drinking water was much higher—4 percent higher among the exposed group (81%) than in the control group (76%). This suggests that some of the awareness came from other media exposures, such as the earned television media.

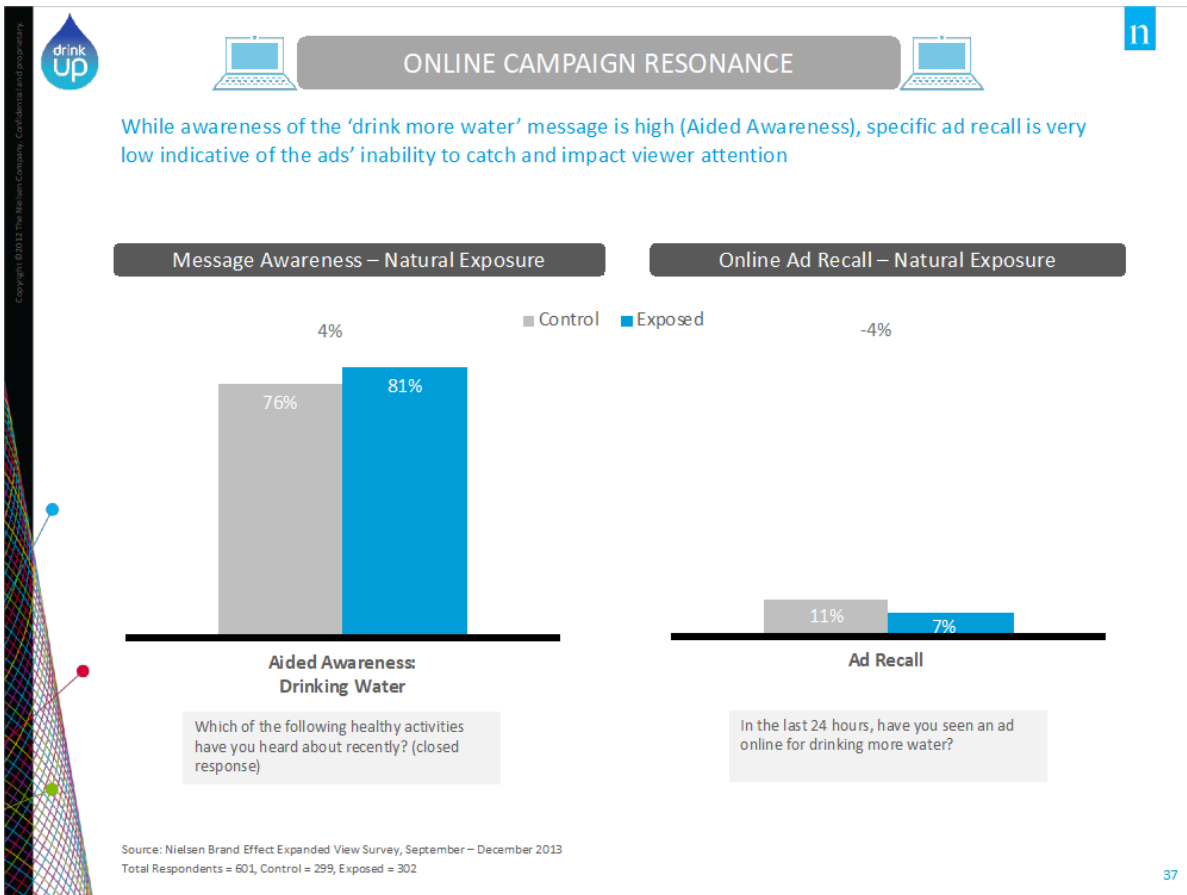


Figure 46. Online campaign resonance: message awareness and ad recall.

The researchers then asked:

*Which of the following activities does this slogan aim to promote?: DRINK UP*

- Drinking more water
- Drinking fruit juice
- Drinking vegetable juice
- Drinking more milk
- None of the above
- Don't know/Not sure

Of the exposed versus the control audience, 40 percent of the control group chose "Drinking more water," while only a marginally higher percentage of the exposed group (42%) selected that response. The response that received the highest percentage of responses from both groups was "Don't know/Not sure" (43% of control and 45% of exposed).

The researchers concluded that water is the beverage most associated with the "Drink Up" slogan due to a natural link between the two, but because there was not a great lift between those who did and those who did not see the ad, the researchers concluded that the ad campaign was not strong. The researchers did note a promising opportunity to strengthen the association between the Drink Up slogan and water, because while most respondents were unable to associate Drink Up to water, they did not associate it with any other beverage.



The next step in the analysis was to understand *why* the ads themselves were unmemorable among the people that saw them. This meant taking a deeper dive into analysing the creatives, with a view toward improving them.

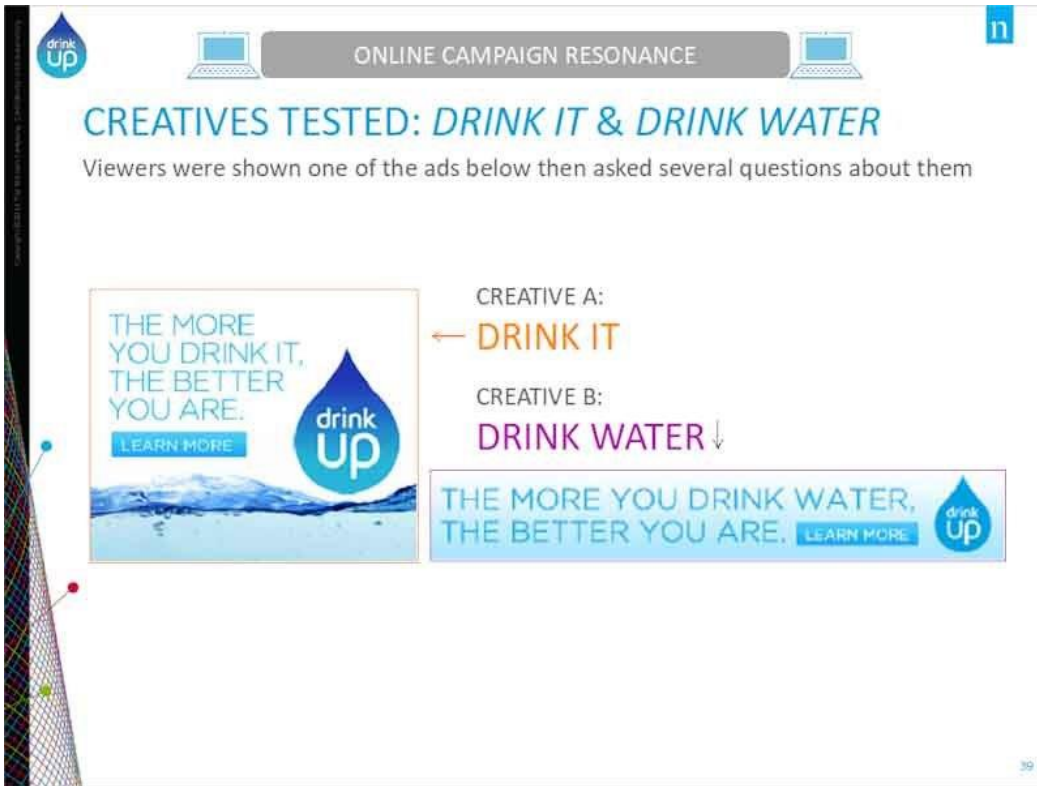


Figure 47. Online campaign resonance: testing ad designs.

The research team asked respondents to compare the two ads, “Creative A” and “Creative B,” shown in Figure 47. Both ads were described as informative and believable, which is important for a public health campaign, but neither ad performed well when it came to being memorable and entertaining, and this contributed to the lack of ad recall. Comparing the two ads with each other, Creative A performed better than Creative B (Figure 48).

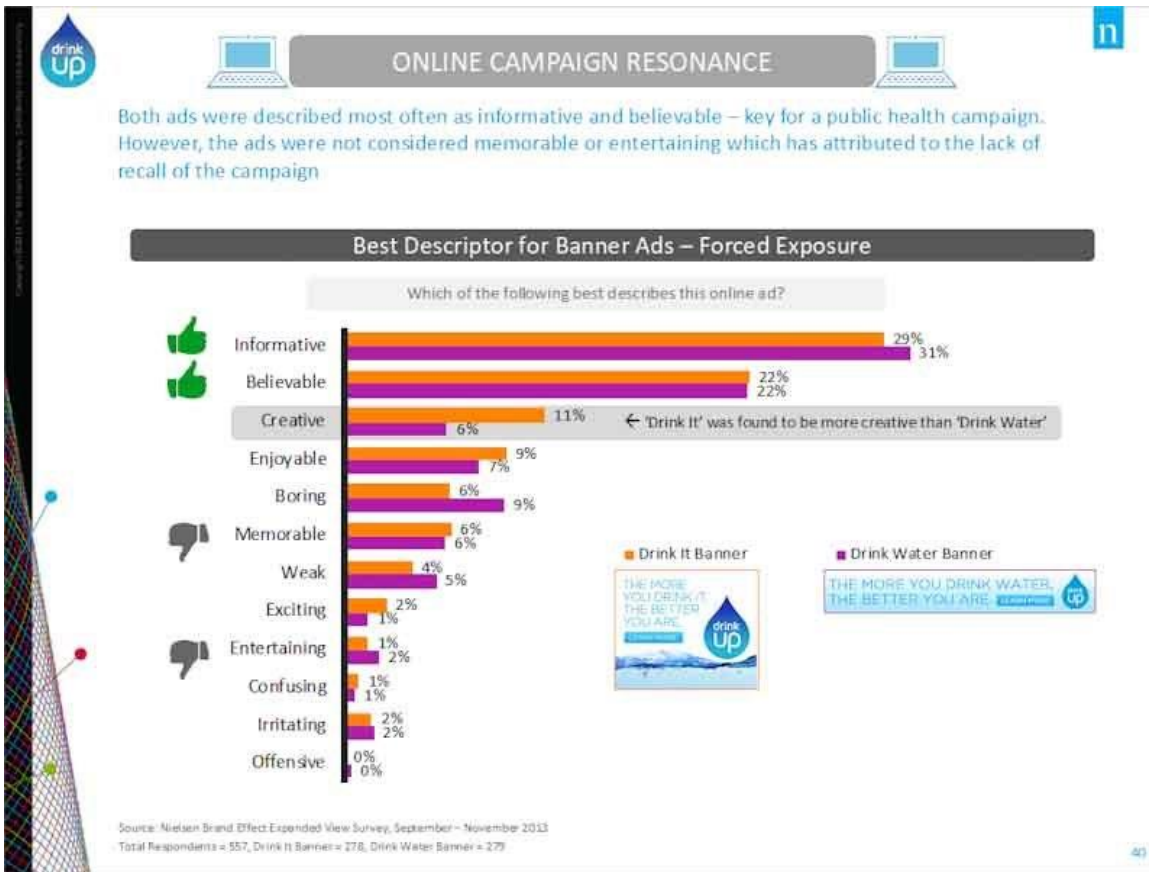


Figure 48. Online campaign resonance: testing reaction to ads.

The conclusions on the creatives were inescapable. To have an impact as a standalone campaign for the online audience, the advertising creative visuals would need to be more engaging, memorable, and entertaining. The researchers who measure Nielsen Brand Effect recommended that the PHA team invest in ads that used images—and perhaps even video—of people, noting that often such advertising is “more emotively powerful.”

In the following months, Y&R set about obtaining advertising rights to use the names, images, and voices of Mohammed Ali, Albert Einstein, and Audrey Hepburn. They constructed new ads that associated each of these celebrities’ respective reputations for athletic prowess, genius, and beauty with their personal habits of consuming water. The ads were playful and powerful. By May 2014, with the rights negotiated and the revised ads created, the new creatives made their debut online. The ads consisted of medium close-up, still black-and-white photographs, with audio and in some cases video of each of the celebrities talking, with a slow zoom by the camera onto the water glass in front of them (Figure 49).

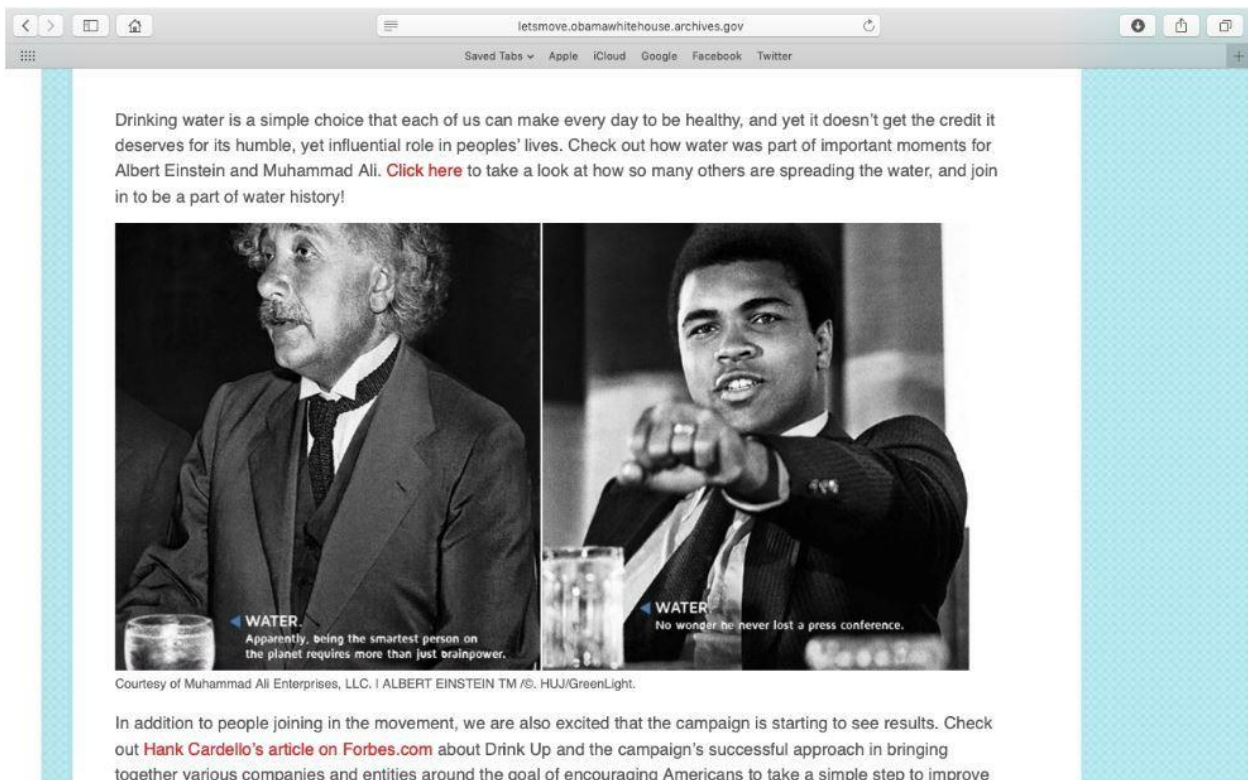


Figure 49. Online campaign ads featuring cultural icons.

#### 11.4 Cost-effective paid media: On location, traditional and digital advertising, donated media

Digital and traditional out-of-home (OOH) advertising (billboards) were an important contribution to the campaign. Exposure to this kind of advertising is underestimated. At a minimum, place-based advertising reinforces the message in the viewer's mind after or even prior to exposure via another medium. An original and major partner/participant in the campaign, recruited by Nielsen, was the PVBLIC Foundation. PVBLIC (pronounced 'Public') takes unused 'billboard' space, whether electronic or static, also known as on-location advertising space, and deploys it for public message campaigns.

It is an unfortunate irony that advertisers are often of the opinion that low-income geographic areas are the least desirable for location-based advertising, yet those locations are often where the consumers most benefit from public health messages. Corporations often consider these areas low priority because they assume that the products in their ads will be out of reach or unaffordable to the low-income audience.

The OOH or location-based industry is comprised of numerous companies that sell advertising to commercial companies, but prior to the Drink Up campaign, the industry had no metrics by which to measure the **added** value of the OOH medium to the reach, resonance, and recall of the message with consumers. Nielsen agreed that it would provide the companies in this industry with a report measuring impact in the marketplace; a significant number of the companies agreed to donate their space and pay for the cost of measuring the impact of the Drink Up campaign public service announcements. PVBLIC approached the DOOH industry, managed the media campaign, and offered their services as consultants on the creative assets. According to Sergio Fernandez de



Cordova, chairman of PVBLIC Foundation, the campaign was the largest and most complex multi-network DOOH campaign ever in-market.<sup>33</sup>

As described earlier, Nielsen’s measurement used geo-fencing methodology to assess the Drink Up PSAs. In particular, they focused on venues with access to television screens on a closed network, including health clubs, elevators, doctor’s offices, gas stations, digital billboards, check-cashing facilities, hair/nail salons, shopping malls, and taxicabs. PVBLIC Foundation aggregated more than 700 million media impressions nationwide for the Drink Up campaign. Overall, the campaign included 33,148 screens in 14,903 venues in more than 200 DMAs across the country.

The PSAs appeared in both English and Spanish languages. Mobile surveys were then presented to respondents who entered specific geo-fenced areas (these were built using latitude and longitude coordinates around venues that offered place-based advertisements), as well as to a control group. Respondents were tracked via their smart phones, and were asked to indicate the degree to which they either agreed or disagreed with a set of statements using a 5-point Likert scale, in order to capture their opinions on statements related to the Drink Up PSA message. These statements were geared to the message points of the campaign. Responses were aggregated into the following categories for ad effectiveness comparison:

- All respondents
- Control group – Respondents who did not notice any TV screens
- Saw TVs – Respondents who noticed the TV screens
- Saw ad – Respondents who saw the ad on the screens

Venues where ads were run	Venues where ads were not run
check cashing stores	bars
doctor offices	office buildings
gas stations	
health clubs	
Malls	

**Table 3.** Venues.

The results are separated into venues that ran the advertisements and those that did not run the ads (Table 3), and are presented in two formats: Straight average responses (Figure 50) and percentage of “Top 2 Box” (i.e., they checked either of the two positive responses out of the five possible—two positive, one neutral, and two negative—responses: Figure 51).

<sup>33</sup> <https://www.ahealthieramerica.org/articles/drink-up-leverages-largest-digital-out-of-home-advertising-campaign-ever-400>

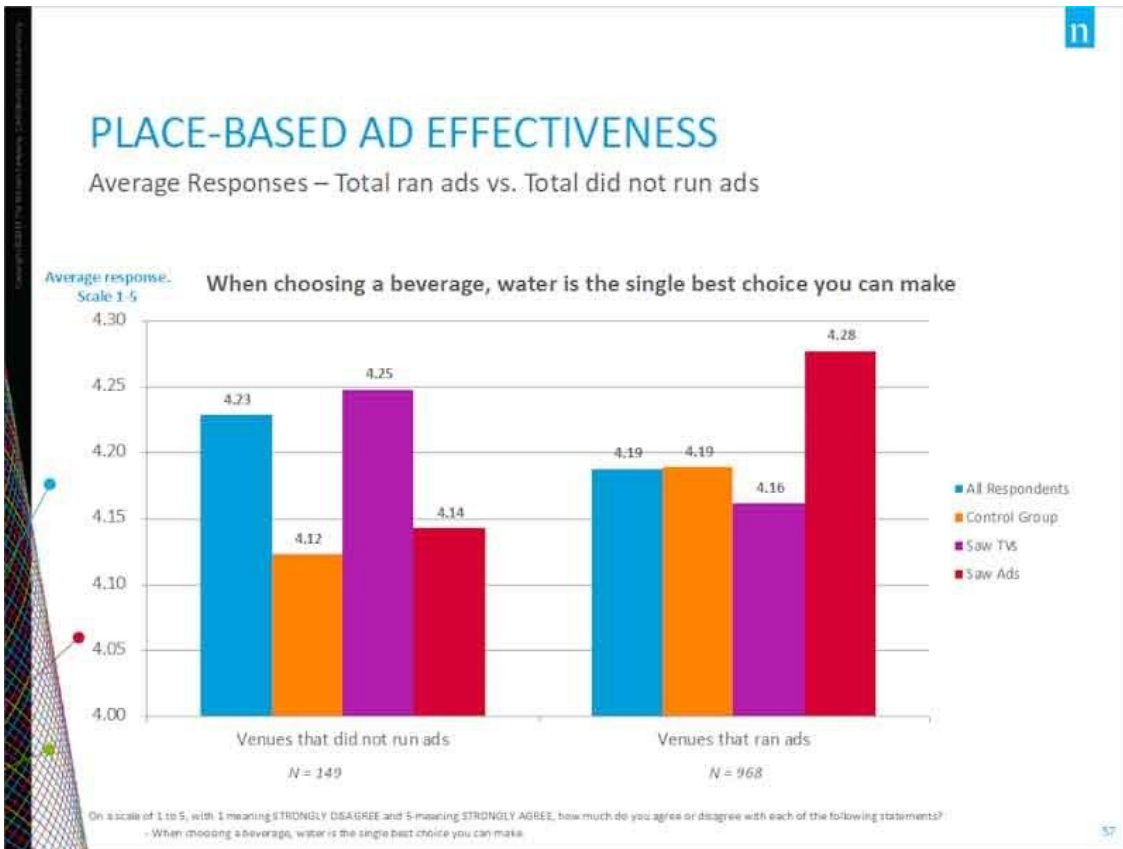


Figure 50. Place-based ad effectiveness: control vs. exposed.

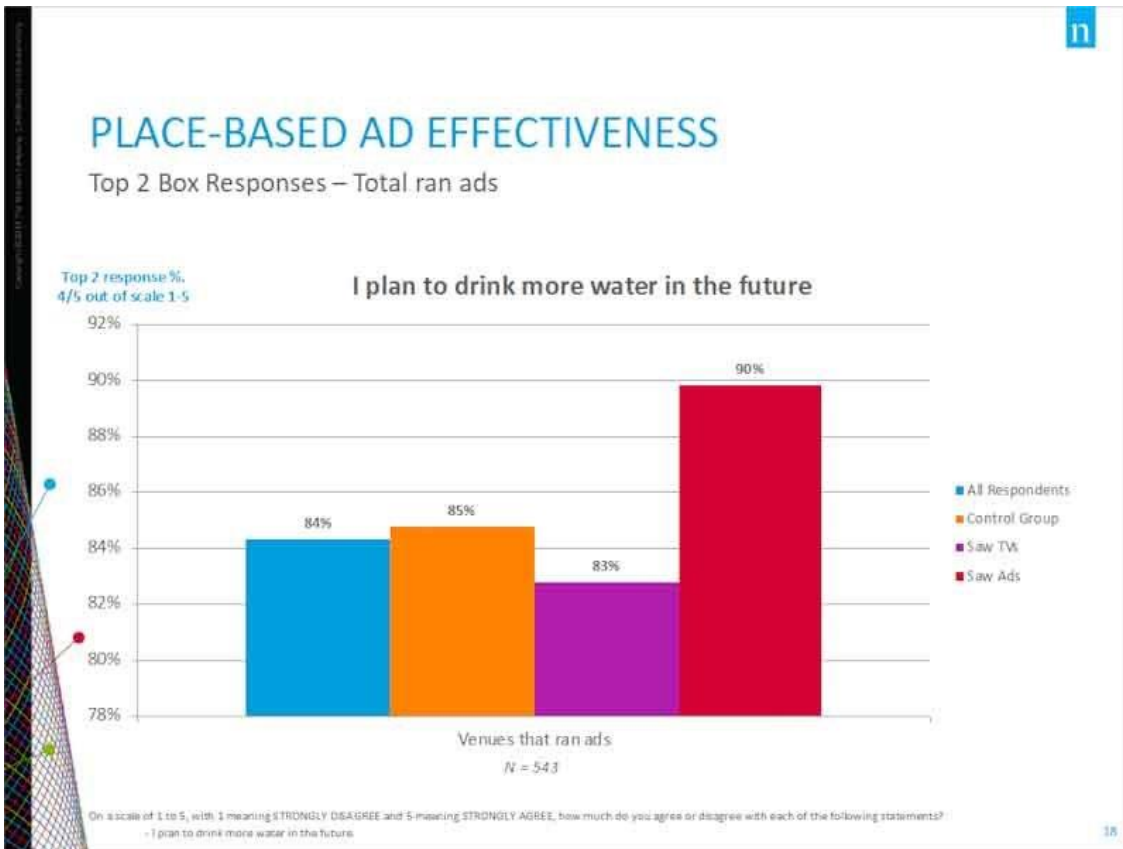


Figure 51. Place-based ad effectiveness: control vs. exposed.





In general, respondents who saw the ads in venues where the Drink Up advertisements were run had more favourable opinions regarding the PSA's message (Figure 52).

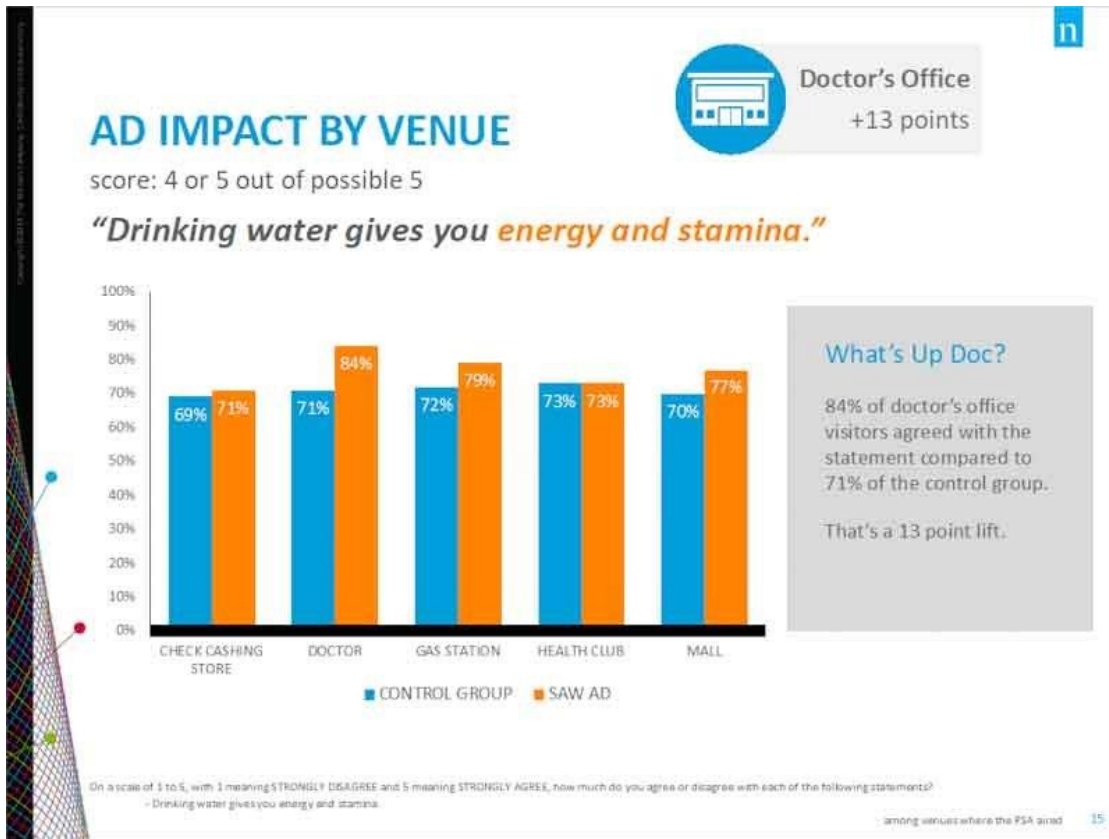


Figure 52. Place-based ad effectiveness by venue: doctor's office.

When asked if they agreed with the message "You are what you drink," consumer response increased 11 percent after being exposed to the Drink Up advertisements. Agreement with the statement, "When choosing a beverage, water is the single best choice you can make," increased 22 percent (from 68% to 83%) upon seeing the Drink Up ads. Across all networks, nearly one in five respondents recalled seeing the advertising at the locations they visited (Figure 53).

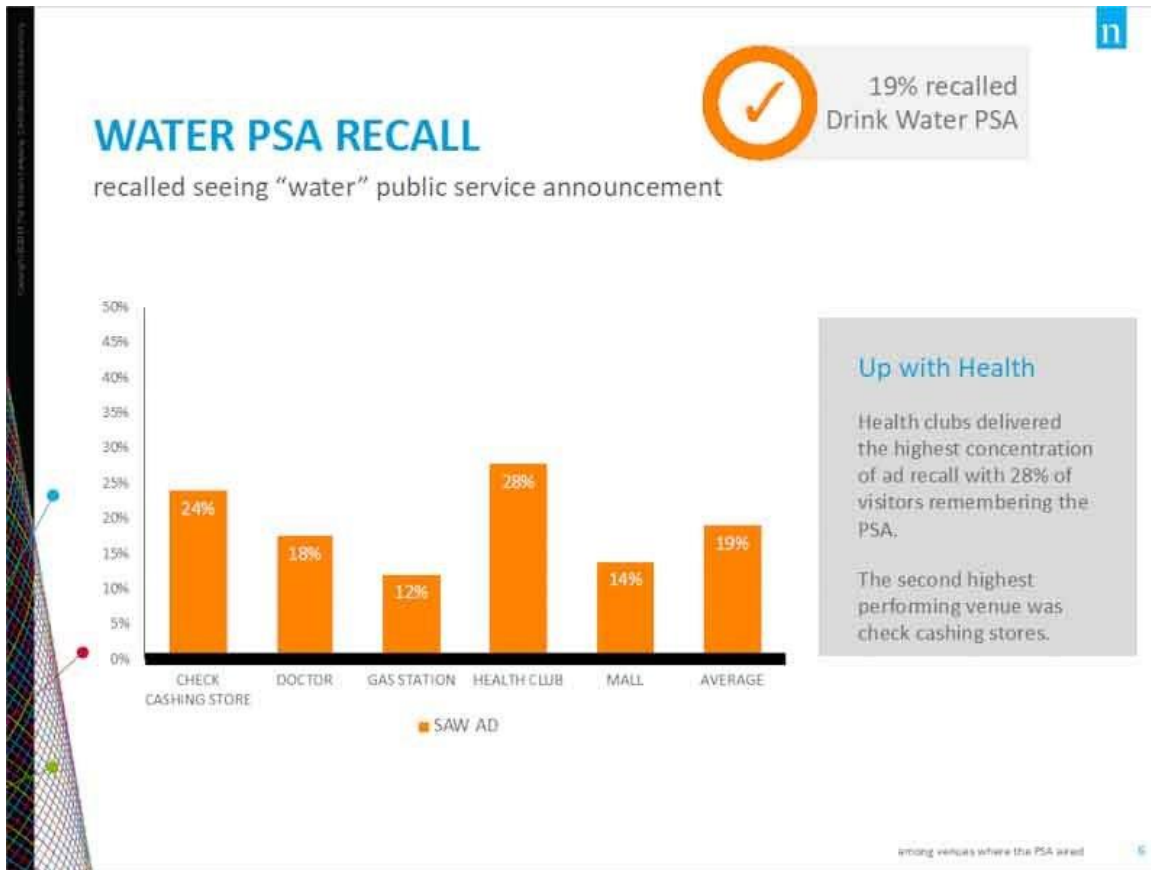


Figure 53. Place-based ad effectiveness: Recall of water PSA by venue.

### 11.5 Measuring impact: In-store sales measurement as a proxy for changed behaviour

The reporting on the impact of the campaign was the only research reporting that continued past the proof-of-concept phase. PHA received data free of charge from NCS's reporting on offline sales as part of Nielsen Catalina's pro bono contribution in the last quarter of 2013, and PHA purchased data from NCS for the last quarters of 2014, 2015, and 2016.

(In 2015, PHA aimed to duplicate its success in the Drink Up campaign with a similar campaign encouraging the consumption of fruits and vegetables using many of the same insights and multi-stakeholder participation techniques deployed for water. However, the absence of a UPC code on most vegetables, and the fact that fresh fruit and vegetables tend to be produced regionally make the challenges of both marketing and tracking such a campaign more difficult.)

In its first year, in comparison to other advertising campaigns that were advertising a category, the Drink Up campaign was small (Figure 54), but it held its own in terms of the lift it provided to the category based on the number of advertising impressions (Figure 55).



## Exposure to the Drink Up campaign drove \$943K in offline, retail sales for Total Bottled Water

	Percent of Panel Reached	1.13% <sub>1</sub>
How many were exposed	Total Online Households	X 93,032,000
	Estimated Campaign Reach	1,054,263 hhlds
Times how much each was worth (incremental)		X
	Per Household Incremental \$	\$0.90 <sub>2</sub>
Equals total incremental sales		
	Total Incremental Sales from campaign	<b>\$943,577</b>

### September 12, 2013-January 31, 2014

<sup>1</sup>Percent of Panel Reached = Total Exposed Households ÷ Nielsen web-enabled (Sales Effect) Panel  
<sup>2</sup>Per Exposed Household Incremental Dollars = Total incremental Dollars ÷ Total Exposed Households (reflects all-outlet adjustment)

Figure 54. Campaign exposure: Impact on sales of bottled water.

## The Drink Up campaign performed at par in terms of lift and efficiency

- Although this campaign was much smaller relative to other category based campaigns measured, it held it's own in terms of lift and \$ per Thousand impressions



Normative Benchmarks – Category/Retailer/Manufacturer - 15 campaigns

Figure 55. Drink Up impacts compared to other category-based campaigns.



## Exposure to the campaign drove incremental sales for Bottled Water and Water filters (combined)

- Overall, the Drink Up Digital campaign drove a 4% lift for Bottled Water and Water Filters, combined.
- The sales lift can confidently be attributed to digital exposure based on the statistical significance of 99%.

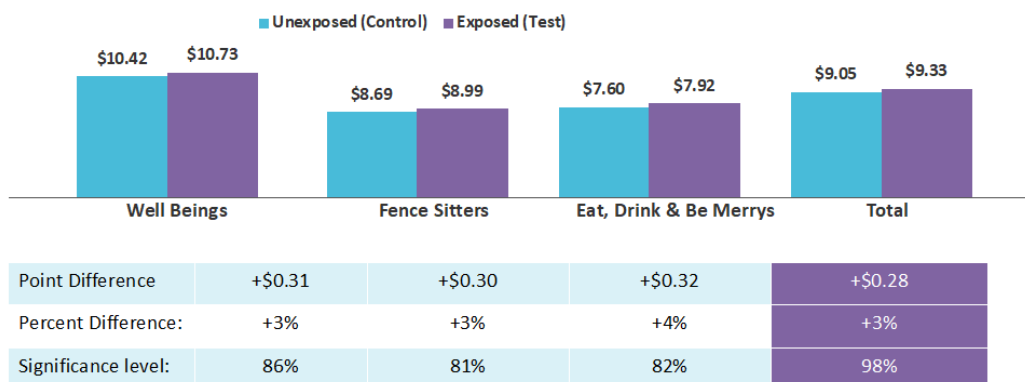


Sales Impact – Dollar Purchases October 2, 2014- January 31, 2015  
 (Sales Impact= Average Dollar purchase per panel = Total Dollars divided by # households per panel (includes non-buyers))

Figure 56. Campaign exposure: Impact on sales of bottled water and water filters.

## Exposure to the campaign drove incremental sales

- Overall, the Drink Up Digital campaign drove a 3% lift.
- The sales lift can confidently be attributed to digital exposure based on the statistical significance of 98%.



Sales Impact – Dollar Purchases September 12, 2013 - January 31, 2014  
 (Sales Impact= Average Dollar purchase per panel = Total Dollars divided by # households per panel (includes non-buyers))

Figure 57. Campaign exposure: Impact on incremental sales of bottled water.



The data showed that exposure to the ads drove incremental sales (Figures 56 & 57) the Fence Sitters and Well Beings segments purchased more water and fewer soft drinks. But for the Eat, Drink and Be Merry (EDBM) segment, the sacrifice came at the expense of purchasing juice. In fact, soft drink purchases increased by 0.33 percent in the EDBM segment. But the Fence Sitter and Well Beings segments decreased their purchases of soft drinks by 1 percent and 0.92 percent, respectively (Figures 58 and 59).

## Bottled Water - Total Dollar Sales Snapshot September 12, 2013 - January 31, 2014

	Unexposed (Control)	Exposed (Test)	Difference	% Diff.	Sig. Level
<b>Total Sales</b> <small>(Average Dollar purchased per HH)</small>	\$9.05	\$9.33	\$0.28	3%	98%
<b>Penetration</b> <small>(% of HH buying product)</small>	51.0%	51.0%	0.0%	0%	2%
<b>Dollar Buying Rate</b> <small>(Average Dollar purchased among buying HH)</small>	\$17.75	\$18.29	\$0.54	3%	99%
<b>Purchase Frequency</b> <small>(Average # of product purchase occasions among buying HH)</small>	3.78	3.86	0.08	2%	98%
<b>Dollar Purchase Amount</b> <small>(Average Dollar per purchase occasion among buying HH)</small>	\$4.70	\$4.73	\$0.03	1%	99%

Data Source: Frequent Shopper

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14

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SOLUTIONS



Figure 58. Total dollar sales of bottled water 12 September 2013 – 31 January 2014.

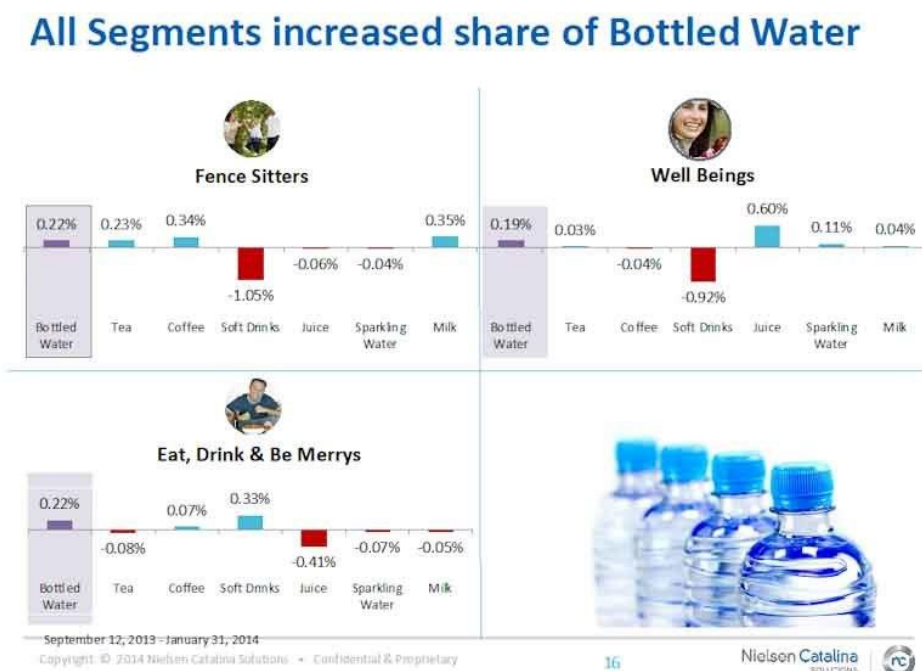


Figure 59. Share of bottled water consumption increased for all segments.



As anticipated, the Fence Sitters were most responsive to the campaign as measured by ROAS, or “return on advertising spend” (Figure 60). The campaign also drove up sales among the difficult-to-reach Eat, Drink and Be Merry segment, although it required many more exposures to the campaign to achieve results. PHA did not spend actual dollars on the campaign, but NCS plugged in a dollar spend amount in order to approximate what an advertiser would spend to achieve results. The results for the EDBM segment demonstrated that, relative to the other two segments, it would be considerably costlier to move this segment toward drinking water.

## Fence Sitters were most responsive to the advertising

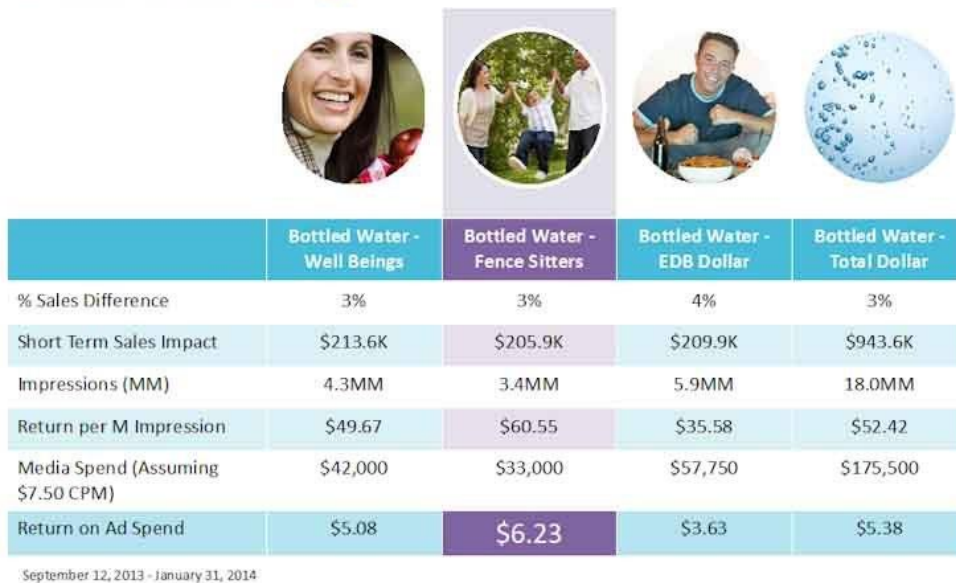


Figure 60. ROAS: Fence Sitters segment most responsive to campaign ads.



## 11.6 Improvements as a result of research findings

In the following year, with newly constructed and more emotionally resonant ad visuals, PHA began purchasing online advertising<sup>34</sup> and contracted with NCS to continue to measure the impact. But it eliminated the tracking of the Eat, Drink and Be Merry segment: the high cost of ROAS for this the segment may have been responsible for the change.

The results of the advertising visuals adjustment appear to have made a significant difference in moving the marketplace. Furthermore, with the insight about the role of human engagement, a great deal of creativity was unleashed in the second year of the campaign. For instance, PHA engaged a team that created a ‘talking’ water fountain and placed it in a park near the Brooklyn Bridge in New York City (Figure 61). Each time people drank from the fountain, the fountain would ‘speak’ by greeting the water drinker with audible information about the benefits of drinking water; the audio message also included conversational ‘small talk,’ like complimenting the drinker on their smile and saying things like, “When this is all over, I have several public restrooms I can recommend.”<sup>35</sup>

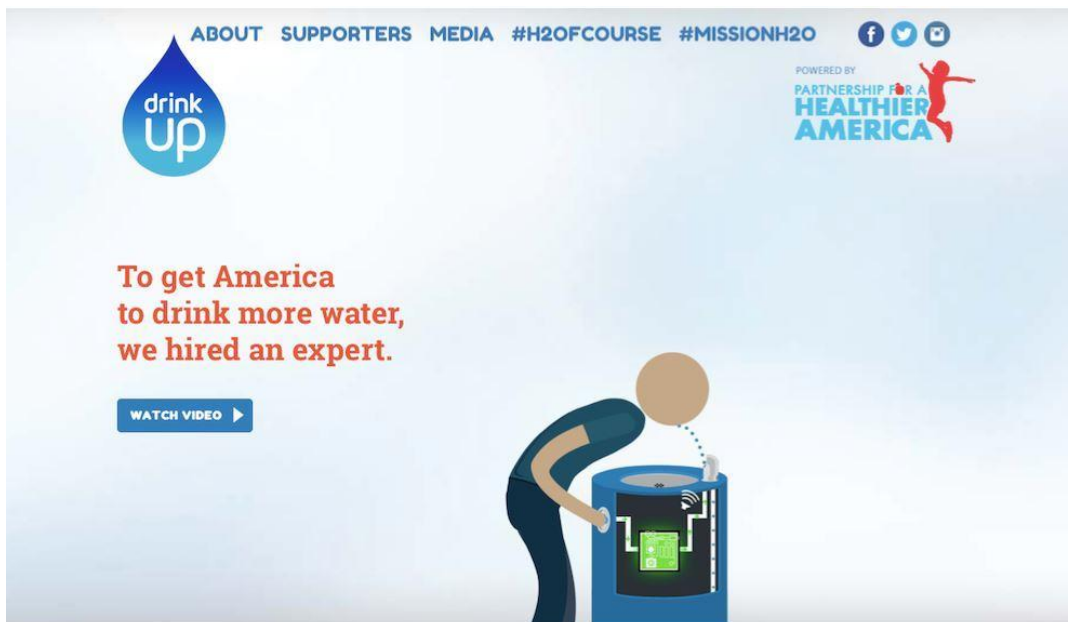


Figure 61. Talking water fountain in Brooklyn, NY.

Also in the second and third years of the campaign, PHA devised creative ways to more fully engage celebrities in cultural influence. The message of the campaign was limited only by the creativity of the campaign participant. For instance, Grammy award winning artist Ashanti produced a video<sup>36</sup> that was specifically driven to engage viewers by ‘hydrating’ the imagery in the video with water (Figure 62). The video was constructed at the beginning in a thin-sounding (intentionally poor quality) audio and with images that were in grayscale. Ashanti requested that viewers use their Twitter ‘handle’ to

<sup>34</sup> Touting one billion media impressions in the first year of the campaign, PHA put together this promotional video to demonstrate the breadth of the earned and social media of the campaign:

[https://www.youtube.com/watch?v=n5bUHjesfOk&list=PLaUKk\\_NTTTo1pDsKiG1sD2KcnlGVwUfh0y&index=7](https://www.youtube.com/watch?v=n5bUHjesfOk&list=PLaUKk_NTTTo1pDsKiG1sD2KcnlGVwUfh0y&index=7)

<sup>35</sup> Chatty Water Fountain: [https://www.youtube.com/watch?v=o-vlXY9leqc&index=4&list=PLaUKk\\_NTTTo1pDsKiG1sD2KcnlGVwUfh0y](https://www.youtube.com/watch?v=o-vlXY9leqc&index=4&list=PLaUKk_NTTTo1pDsKiG1sD2KcnlGVwUfh0y)

<sup>36</sup> The complete “Drink Up Ashanti” video can be viewed here:

[https://www.youtube.com/watch?v=36TKNCoMzag&index=12&list=PLaUKk\\_NTTTo1pDsKiG1sD2KcnlGVwUfh0y](https://www.youtube.com/watch?v=36TKNCoMzag&index=12&list=PLaUKk_NTTTo1pDsKiG1sD2KcnlGVwUfh0y)



tweet to her, and with each ‘tweet’ they would become part of the video creation and coloration, as their Twitter name was instantly attached to an image in the video. As YouTube viewers grew in number, the audio-visual environment in which Ashanti sang grew into a robust sound with a visually lush background, suggesting that Ashanti’s voice and the greenery around her had been hydrated by water, a metaphor for the role water plays in the body. Viewers engaged with the message in a demonstrable way. They could click on an image and discover where their personal Twitter handle had been attached, to the petal of a flower or the stripe of a rainbow, for instance.

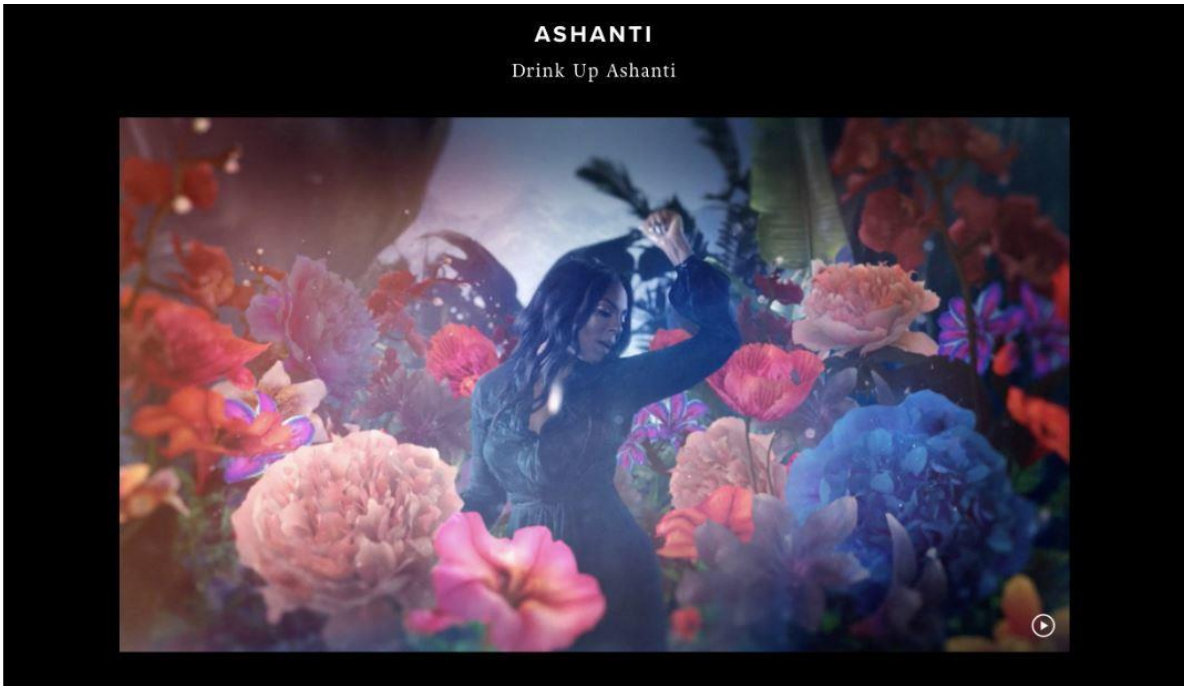


Figure 62. Interactive Drink Up video featuring Ashanti.

President Obama and the Vice President of the United States, Joseph Biden, also delivered the message at opportune times. At an annual dinner of White House Correspondents in the spring of 2015, Obama and Biden appeared in a humorous video discussing the importance of heeding Michelle Obama’s message to “Drink Up” after a faux strenuous race through the White House. The dinner is attended by journalists from around the world who are assigned to cover the news from/about the White House, and by multiple celebrities, and is an event that is given prominent attention in the media.

## 12. Limitations

The primary limitation of this case study is that the author of this report is the same person who created, designed, and directed the Drink Up campaign; furthermore, Nielsen, the data analytics firm that designed the campaign’s methodology and conducted the research for the campaign, was also involved in the evaluation of the results<sup>37</sup>; as such, there may be some subjectivity in the interpretation of the outcomes of the campaign. A good faith effort has been made on several occasions over the past two years to search the literature for independent evaluations or analyses of the Drink Up campaign, whether from academia, government, NGO, or industry. To date, no

<sup>37</sup> However, NPD, a different company not affiliated with Nielsen, measured the ordering of drinking water in restaurants.





published review has been found. However, a 2017 study published in JAMA focused on a similar, but much smaller and more localized, campaign in the U.S. state of Maryland to reduce SSB consumption by promoting drinking water and other non-sweetened drinks, and that campaign overlapped with the Drink Up campaign in both time and location.<sup>38</sup>

A weakness of the campaign was that the data used in the foundational research, as well as the data provided for the measurement of aspects of the campaign, would have been expensive were governments required to purchase them outright. The purpose of the proof of concept, however, was to show that even a small quantity of commercial market research data can be valuable in constructing a consumer-centric campaign for behaviour change. And too, that there are publicly available resources, government-collected statistics, that can act as a proxy for commercial research. The campaign might have been improved in later stages, or repeated, if the creators had had more time and additional opportunities to test alternative message narratives, taglines, and visuals, for their ability to resonate neurologically with the campaign targets.

### **13. Conclusion: Observations and Insights for Public Health Practitioners**

This campaign became one of the most successful, innovative, and influential social marketing public health awareness efforts in recent history and provides the foundation for future efforts at the population level.

As a social marketing campaign, Drink Up was able to leverage the in-kind contributions of its multiple stakeholders—valued at tens of millions of dollars—to make an impact on consumer behaviour. A unique set of political, cultural, and market circumstances contributed to the success of the campaign. They are circumstances that cannot always be assured when undertaking a public health marketing campaign, but many of the lessons of the campaign are transferable to social marketing success in public health.

A significant lesson of the campaign is the importance of the message and the uniformity with which the message was delivered. The ‘gain-framed,’ unconscious resonance of the campaign message was central to its success. The discipline of abiding by ‘brand’ and message guidelines assured that all those delivering the message were doing so within a framework that was consistent, and were reinforcing that message across multiple mediums. Another key realization was that advertising which includes human images and emotional resonance is more impactful and thus creates greater memorability.

An additional important takeaway from this campaign that might be transferrable, especially to a marketing effort designed to alter purchase patterns toward healthier food, is the value of having a visual reinforcement at the point of purchase. That visual reinforcement and tagline act as a trigger to remind the consumer of the message of the campaign, and this technique could be borrowed by social marketers for greater impact.

The campaign took place and was supported by a popular ‘political spouse,’ early in the second term of a presidency that did not have to depend on the support of corporate campaign contributions for re-election. It provided an avenue for participants from the business sector to demonstrate good

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<sup>38</sup> The Howard County Unsweetened campaign (Schwartz et al., 2017) ran during the 3-year period January 1, 2013 through December 31, 2015. The locus of the experiment was Howard County, Maryland. The control group was in south-eastern Pennsylvania, as is Philadelphia, one of the Drink Up campaign’s target cities. The full study: Schwartz, M. B., Schneider, G. E., Choi, Y. Y., Li, X., Harris, J., Andreyeva, T., Hyary, M., Highsmith Vernick, N., & Appel, L. J. (2017). Association of a community campaign for better beverage choices with beverage purchases from supermarkets. *JAMA Internal Medicine*, 177(5), 666–674. <https://doi.org/10.1001/jamainternmed.2016.9650>



corporate citizenship, and at the same time to build a revenue stream, with the help of Mrs. Obama. The market research contribution bridged the world of commercial marketplace and public health/government accountability by providing and establishing metrics to measure success that could be understood by both sectors of the economy. As a result, the campaign boasted a well-defined, concrete consensus on the measurement of success and being able to track those measurements closely.

The role of changing cultural norms was assigned to the participants who have the greatest ability to make the most impact: the creators and transmitters of culture. The campaign opened an avenue for cultural icons, sports figures, music artists, actors, and graphic artists to contribute by identifying with the mission of the campaign using their own individual, creative expressions within the parameters of the mission. In this way they were able to lend their brand identity to the cause, and at the same time to further define their individual brand identity through associating with the mission of the campaign and with its other participants.

Few public health departments will have the ability to spend the millions of dollars on in-kind research that Nielsen contributed to this campaign, but there may be access to some basic funds for message testing and for analysing purchase patterns that indicate consumer preferences. Moreover, there are likely multiple publicly available datasets that can act as proxies for market research and privately held consumer data. The engagement of multiple stakeholders might also be re-examined and broadened when approaching a public health social marketing campaign. It requires some ingenuity and vision, but it is worthwhile seeking out unlikely partners, new ventures, organizations, or companies looking for opportunities to learn by participating in or associating themselves with the cause of a great campaign.

Finally, we highlight major insights derived and outcomes achieved during the first four years of the campaign: the collaborations, the exposure of and reaction to the campaign on television, and online, and to both static text and video of the campaign imagery, on traditional as well as electronic video billboards in what is known as “on location media,” and on social media networks such as Facebook, Twitter and Instagram.

The outcomes were a measurable increase in bottled water consumption.

- A three percent increase in the purchase of bottled water among the test group representing the segments of the population tested.
- A four percent increase in the segment with the lowest socioeconomic status.

The insights and the process for constructing a multi-stakeholder campaign were perhaps as valuable as the measured results. Chief among the insights is that having measurable results is essential to multiple aspects of the campaign, not least of which is the ability to build a consensus around what constitutes success.

- The recruitment and participation of a broad and—more importantly, diverse—group of stakeholders involved in the campaign is critical. A number of these public health issues are the products of a broad array of societal factors. Many of those stakeholders were unlikely participants, but their willingness to engage was evidence of the power of non-monetary incentives in engaging corporate, institutional goodwill. Chief among those benefits is the sheer learning that comes with cross-collaboration in an industry or field disconnected from one’s professional sphere. Then too, there is the civic responsibility that often remains untapped at



the leadership level of various institutions and in cultural influencers. And finally, the ability of the campaign to unleash the creativity of participants to interpret the message to their audiences.

- The use of data analytics to understand whether to iterate an advertising campaign's creative materials in order to make them more memorable and more engaging was an important insight. Iteration and improvements made a discernible difference in the ability to enhance the campaign's effectiveness with its intended target audience.
- The variability in cost for reaching audience segments with a public health advertising campaign is another insight. Although most of the marketing and communications of this campaign were performed on a pro-bono basis, the outcomes which measured exposures to the campaign relative to purchase behaviour allowed us to surmise the number of exposures to the campaign required for each of the segments we targeted.
- Another learning of the campaign was the degree to which communications mediums reinforce one another, and the surprising impact of the relatively inexpensive place-based advertising on reinforcing and creating awareness of the message that appears either online or in the earned media of television and social media, like Twitter or Instagram.
- It seems too obvious to mention, but above all, cultural influencers play a very important role in creating social norms and integrating the message of healthier behaviours into music, visual arts, and video. They model what is cool, important, and acceptable. All over the world, we aspire to be like many of the cultural icons we see in film, on television, and online.
- To be effective, a message should be crafted for its ability to resonate with unconscious behaviours, especially when that behaviour is frequent and often automatic, as with food and nutrition-related behaviour.
- An essential part of a message when it comes to food behaviours is the role that visual imagery and manufacturers of food products can play in reinforcing a message to trigger memory at the point of purchase. This kind of sophistication has been essential to what people choose in both planned and unplanned decision-making that takes place—in even the most conscientious consumer.



## 14. Appendixes and Slides

### 14.1 Water Messaging

1. Drinking more water is the easiest choice every one of us can make, every day.  
Alt1. You are what you drink, so drink water.  
Alt1. You are what you drink and drinking water is you at your best.
2. More water helps you have more energy and stamina so you can do more, longer, with better focus.  
Alt2. Drinking more water gives you energy so you can do more, gives you stamina so you can do more, longer, and helps you concentrate better while you're doing it.
3. Each of us has a choice every time we grab a drink. When you choose water, you're doing the single, best thing you can do for your energy, focus, and refreshment.
4. Water is the original drink to refresh, stay better, get better, be better.
5. Water isn't about counting ounces, saving calories, or dropping sizes – we want people to know that more water helps you do more.
6. Drinking water is about you being the most energetic, invigorated "you" there is.

### 14.2 Localization

Just as cultural influencers were only limited by their imaginations for the campaign, local NGOs and government officials found ways to tailor the work to their local audiences and their specific needs. In some cases, as was the case with Los Angeles, local officials joined the campaign at the very start and were provided with research that helped them understand how members of their communities behaved when it came to drinking water and sweetened beverages, and they also learned how and where to reach these residents.

#### 14.2.1 Drink Up, Los Angeles

The following is the text that was provided to local government officials in Los Angeles prior to launching the campaign in that market:

Commercial data and public research show that consumers do not have a full understanding of healthy choices. The majority of consumers want to make healthy choices, but 1 in 5 is unsure which choice to make due to confusion and disbelief in nutritional information. The Water Project aims to improve the information available to these consumers by singularly focusing on one incontestably positive message to improve health: drink more water.

In order to encourage consumers to drink more water, the Partnership for a Healthier America, in collaboration with the White House and Nielsen Government and Public Sector, will launch a marketing campaign to promote water consumption.

As an elected official, there is a significant opportunity for you to get involved and play a role in this exciting initiative. This report will provide local market insights that will help you take action. In particular, this report provides answers to four important marketing questions:

1. Who are the best consumers for water?
2. What do they look like?
3. Where do they live in Los Angeles?
4. How can you reach them most effectively?



## 1. WHO ARE THE BEST CONSUMERS FOR WATER?

The Natural Marketing Institute conducted a market segmentation analysis by health attitudes and behaviours that identified five different segments:



**Well Beings**

16% of USA  
31% of LA



**Food Actives**

16% of USA  
11% of LA



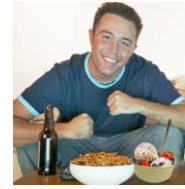
**Magic Bullets**

25% of USA  
10% of LA



**Fence Sitters**

20% of USA  
33% of LA



**Eat, Drink & Be Merrys**

23% of USA  
15% of LA

Out of this initial five, the Water Project focuses primarily on a segment known as **Fence Sitters**, and secondarily on two other segments known as **Well Beings** and **Eat, Drink & Be Merrys**. The table below shows more detailed information about the three segments.

### **FENCE SITTERS 20% of U.S. Households, 33% of Los Angeles Households**

- “Wannabe” healthy
- Good incomes & education
- Younger families, starting out
- Lack clear health goals
- Managing stress
- Exercise when time allows
- Price conscious
- Receptive to eco-friendly messages
- High for TV, Internet, mobile, and magazines

### **WELL BEINGS 16% of U.S. Households, 31% of Los Angeles Households**

- Most health conscious
- Influencers & early adopters
- High income
- Middle age
- Skew urban, suburban
- Support worthwhile causes
- High for Internet, mobile, social media & print
- Busy lives, less time for TV

### **EAT, DRINK & BE MERRYS 23% of U.S. Households, 15% of Los Angeles Households**

- Least healthy
- Eat fast food
- Most likely to be obese
- Low incomes/education
- Youngest
- Influenced by taste
- Price driven
- Above average for TV, Internet and mobile; low for print



**How are the groups related?** The **Fence Sitters** will be most receptive to your messaging—they just need that extra “push” to get off the fence and be healthier. **Well Beings**, already living a healthy lifestyle, will see your messaging and become strong advocates. **Eat, Drink & Be Merrys** will see the messaging, but are less likely to react. However, this group could be influenced by your messaging as they get older and start families of their own.

**2. What do they look like?**

The Fence Sitters are mostly active parents who are healthy when it’s convenient			
Life stage and Demographics	Attitudes	Health and Wellness	Media and Technology
Younger	Celebrity endorsements may influence buying product	Spend \$73 per year on soda, \$38 per year on bottled water	Heavy Internet Users: Visit AOL Media Network, Microsoft, Amazon, Google
Midscale-Upscale	Change Brands Often for Novelty/Variety	Prefer Picking up Quick Meals to Cooking Meals	Heavy Magazine Readers: Read <i>Parents Magazine</i> , <i>Ser Padres</i> , <i>People en Español</i>
40% with Kids	First of My Friends to Try New Products/ Services	Regularly Eat Organic Foods	Most Trusted Media Source is the Internet
Renters: Urban and Second City	Influenced by What’s Hot and What’s Not	Will Purchase Generic Brands over Normal Name Brand	Interested in Watching Live TV/Video Clips on Cell Phone
Some College or College Grad	Risk Taking is Exciting	Do Aerobic Exercise; Play Soccer, Basketball; Go Swimming	Text Messaging is an Important Part of Daily Life
Ethnically Diverse	Strive to Achieve a High Social Status	Own Weightlifting Equipment, Elliptical, Roller Blades/In-Line Skates	Cell Phone is an Extension of Personality

**3. Where do they live in Los Angeles?**

The heat map below [Figure 63] illustrates the Los Angeles zip codes that index most highly for both quality and quantity of Fence Sitters. Please note that zip codes that index high for **quality** are those with large concentrations of Fence Sitters relative to the overall population; those that index high for **quantity** show large numbers of Fence Sitters, regardless of proportionality with the overall population.

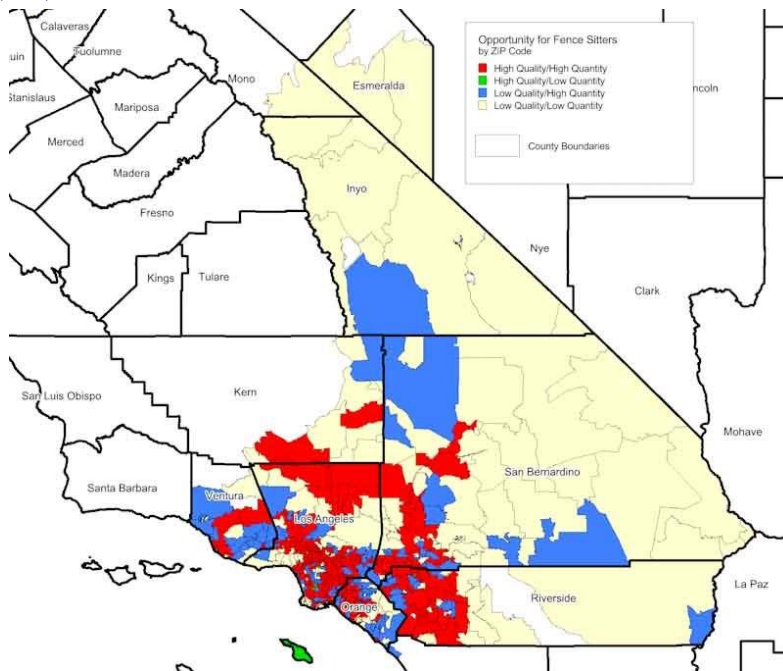


Figure 63.

In addition, here is a closer look at the top 15 zip codes within Los Angeles County:

Top 15 Zip Codes in LA County	
Zip Code	City Name
90034	Los Angeles
90046	Los Angeles
90250	Hawthorne
90650	Norwalk
90706	Bellflower
90036	Los Angeles
90026	Los Angeles
90025	Los Angeles
90066	Los Angeles
90027	Los Angeles
90020	Los Angeles
91601	North Hollywood
90028	Los Angeles
90805	Long Beach
91801	Alhambra

#### 4. How can you reach them most effectively?

Fence Sitters have unique media consumption and shopping patterns that allow you reach this distinct portion of the market. Nielsen can help provide more detailed information on local media and shopping patterns to execute campaigns.



Fence Sitters can be most effectively reached via Internet and Mobile. Not only do Fence Sitters spend much of their time online, they also trust the information found on the Internet. They stay up-to-date on local sports news, play games, and check email online. Fence Sitters are also heavy magazine readers, especially parenting magazines.

Fence Sitters watch TV when they have time, mostly local broadcast stations to stay up-to-date on news in their communities. Fence Sitters also spend time listening to the radio, especially Hispanic stations.

Fence Sitters also have distinct shopping patterns that present opportunities to reach them in-store through partnerships with local retailers. Fence Sitters spend most of their household shopping dollars at grocery stores, followed by mass merchandisers. While Fence Sitters do the majority of their shopping at brick-and-mortar stores, they are also likely to shop online.

[End of text as provided to Los Angeles officials.]

### 14.2.2 Drink Up, Philadelphia

Some other cities, Philadelphia, for example, joined the campaign in the second or third year of the campaign, and worked in partnership with a local NGO. The Food Trust in Philadelphia (<http://thefoodtrust.org/drinkupphl>) put up signage at bus stops (Figure 64) and in stores (Figure 65), including convenience stores, so that the signs and visuals would create awareness and steer people to choosing water instead of carbonated beverages. The sites they chose to place the signs were generally in low income areas and/or heavily frequented by families from the lower end of the socioeconomic spectrum. Armed with the data about specifically where those audiences were, the Food Trust had a more granular understanding of who they were targeting.

## Bus Stop Sign in Philadelphia



Figure 64. Drink Up ad on bus shelter, Philadelphia.





## Refrigerator in a Philly Corner Store

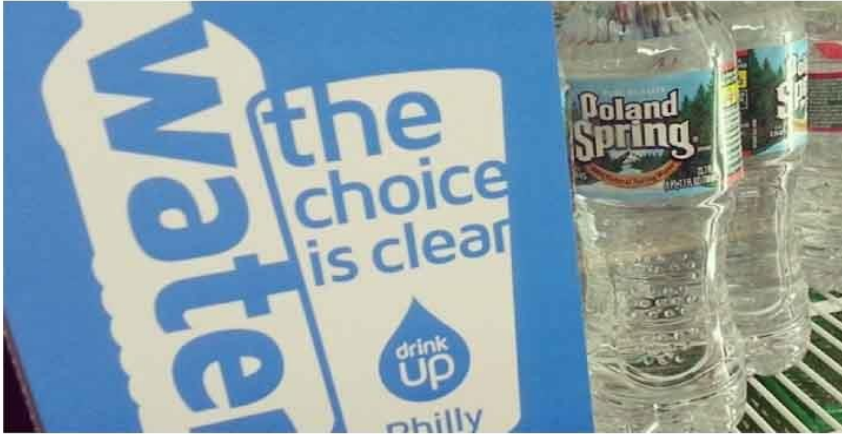


Figure 65. Drink Up ad on drinks refrigerator in corner store, Philadelphia.

In each case, all local officials were given talking points that mirrored the message of the national campaign, so that they could get the benefit of the echo chamber that was being provided by national media and national cultural influencers.

## Wall art in SOHO



Figure 66. Street art sponsored by WAT-AAH (SME water vendor), one of multiple stakeholders.



### 14.3 Supplemental slides

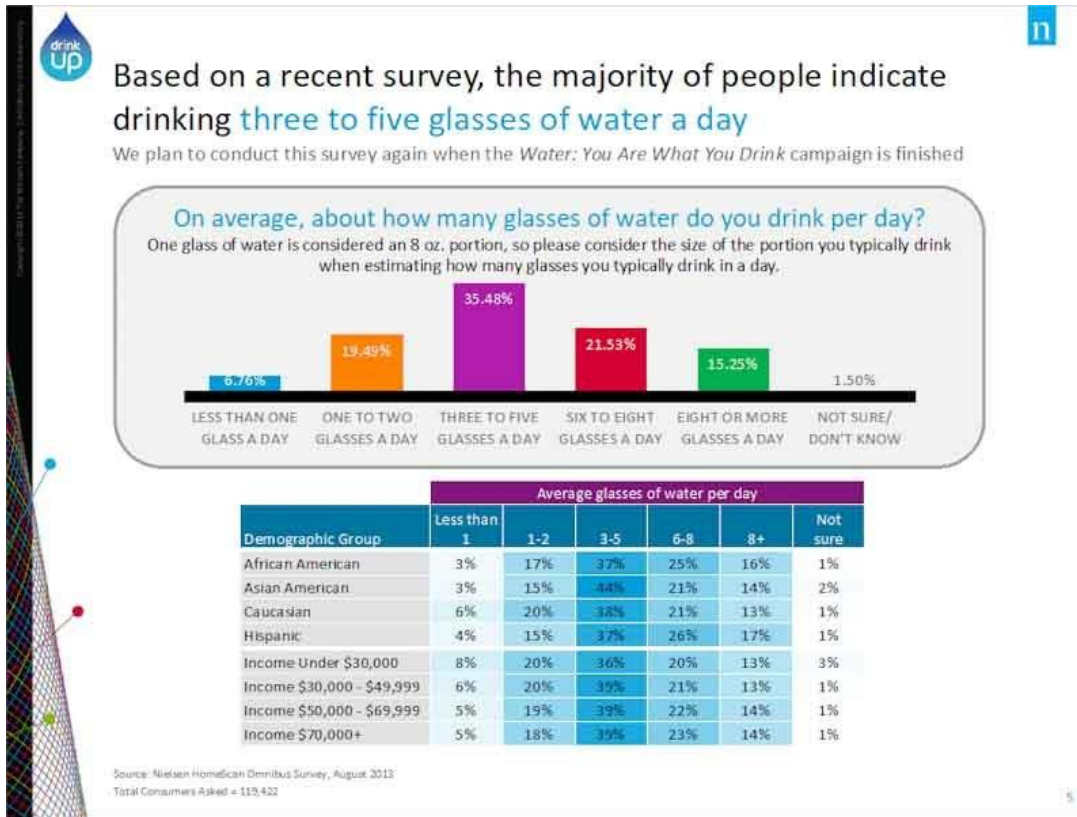


Figure 67. Pre-campaign: self-reported water consumption.




Figure 68. Market trend in water sales 2009 – 2013.



Figure 69. Drink Up campaign evaluation: key takeaways.



Figure 70. Measurement: continual and repeated assessment of campaign impact.

## DATA USED IN ACTIVATION

n

	SUMMARY DESCRIPTION
<b>NIELSEN PRIZM</b>	PRIZM is a segmentation system which classifies every U.S.household into 66 segments within 14 Social Groups or 11 Lifestage Groups. The system uses predictive demographics optimized around a wide variety of consumer behaviors, shopping patterns, and media preferences.
<b>NIELSEN NETVIEW</b>	Nielsen NetView provides metered measurement of a nationally representative panel of 230,000 Internet users, tracking use across websites and digital applications. Detailed Internet use for each respondent is captured with day, time, length of visit, and URL recorded. Nielsen NetView supports gender specific profiles of who visits what sites and at what frequency through the online activity and demographics captured.
<b>NIELSEN HOMESCAN</b>	Nielsen Homescan <sup>®</sup> garners purchase information from more than 250,000 global households across 27 countries including the U.S.A. Panelists use in-home scanners to continuously provide all purchases, from any outlet, intended for in home use.
<b>NIELSEN NATIONAL PEOPLE METER (NPM)</b>	Nielsen's premier NPM service has approximately 20,000 boxes installed across the U.S.A. to measure the viewing habits of television audiences.
<b>NIELSEN FINANCIALTRACK</b>	In-depth survey containing financial information for 80,000 respondents. Topics covered in the survey include product usage and balances, institutional affiliation, delivery channel usage, as well as customer satisfaction and willingness to recommend their primary financial institution.
<b>MEDIAMARK RESEARCH &amp; INTELLIGENCE (MRI)</b>	Reports general lifestyle, media exposure, product usage, consumption, purchasing, and psychographic dimensions based on approximately 26,000 interviews per year among adult consumers in the 48 contiguous states.
<b>NIELSEN INCOME PRODUCING ASSETS (IPA)</b>	Measures liquid wealth such as cash, checking accounts, savings, products such as savings accounts, money market accounts and CDs, investment products such as stock and mutual funds, and retirement accounts.
<b>NIELSEN ENERGY AUDIT</b>	Nielsen Energy Audit is a comprehensive survey focusing on behaviors and attitudes related to energy use within the household. With a robust sample representing more than 32,000 households, the dataset includes content for about two hundred variables including: Current energy provider, type of heating/cooling system, energy programs/services currently have, use of energy saving products, motivations behind being green, interest in Smart Meter service, and attitudes related to energy use

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30

Figure 71. Sources of data used in segmentation activation.



Post campaign omnibus findings on drinking water awareness (NMI study; Figures 72).

Summary of Key Findings

- Awareness of the “Drink Up Campaign” among the general population increased slightly from 20% in Q4 2015 to 21% in Q1 2016. Of those aware of the campaign, the majority correctly identified that the main message is to encourage people to drink more water. The overall impact of “Drink Up” remained stable, with 53% indicating that they increased their water consumption as a result of this campaign (same as in Q4 2015).
- Campaign awareness and impact varied across the geographic markets compared to last quarter.
  - For Los Angeles and New York City, campaign awareness increased, as did the campaign’s effect on getting a higher percentage to drink more water than before.
  - In the Philadelphia and Houston markets there was decreased awareness of the campaign, as well as a decline in those who say “Drink Up” positively affected their water consumption. However, unlike last quarter, no respondents in Q1 2016 indicated that the campaign caused them to drink less water.

Market	Los Angeles		New York City		Philadelphia		Houston	
	Q4'15	Q1'16	Q4'15	Q1'16	Q4'15	Q1'16	Q4'15	Q1'16
Awareness	29%	30%	29%	31%	24%	20%	26%	24%
--Increased Water	63%	68%	57%	61%	53%	45%	65%	56%
--No Change	33%	29%	39%	37%	39%	55%	33%	44%
--Decreased Water	4%	3%	3%	3%	7%	0%	2%	0%

Again this quarter, the NMI Health & Wellness segments of WELL BEINGS and FENCE SITTERS were combined for analysis purposes. This group can be described as those who want live healthier lifestyles but may need information on how to do so. Their awareness of the “Drink Up Campaign” held steady this quarter, with 30% indicating that they were aware of “Drink Up”, in line with last quarter. The campaign’s positive impact on water consumption had slight improvement in Q1 2016 for this group.

Partnership for a Healthier America – ESP Q1 2016  3 

Figure 72. Post campaign: summary of key findings on drinking water awareness.



Awareness of the “*Drink Up Campaign*”, along with correct identification of the campaign’s main idea, both increased in Q1 2016 among the general population. Results varied for the metro areas.

Have you ever seen or heard about the “*Drink Up Campaign*” and what the main idea of the campaign is?

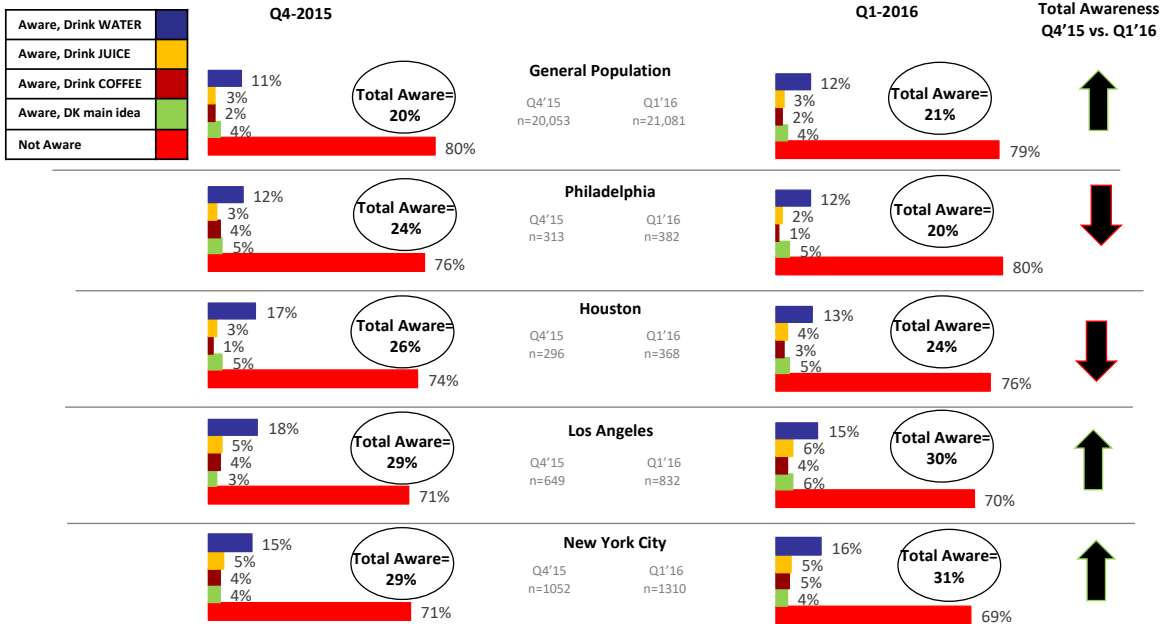


Figure 73. Continued awareness of Drink Up campaign: Q4 2015 – Q1 2016.

[End of Drink Up case study]



## 15. Purpose of Case Study 2

1. To provide governments with an understanding of and insight into how the Danish Whole Grain Partnership campaign deployed knowledge gleaned from data, academic research, government policy, the retail marketplace, and culture to create and lead a multi-stakeholder initiative promoting healthy behaviours through the use of social marketing campaigns.
2. To assess how those campaigns impacted the populations they targeted and provide recommendations to policy makers for how they can transfer the lessons learned from those campaigns to the STOP project: specifically, in their work with local populations and countries throughout the European Union.

## 16. Executive Summary

In 2007, in the face of an alarming rise in the consumption of animal protein and an equally alarming decrease in the consumption of whole grains, a multi-stakeholder partnership known as the Danish Whole Grain Partnership (DWGP) was initiated in Denmark in order to 1) encourage millers and manufacturers to increase the availability of wholegrain products in the marketplace; 2) promote the consumption of whole grains to the Danish people; and 3) track and measure the results of their efforts. In the 12 years since its inception, the initiative has become a model for public–private, NGO, and quasi-governmental collaborations across the European Union.

The process of creating a multi-stakeholder partnership and the elements for its continued cohesion, success, and growth provide lessons for how key societal verticals (industry, retailers, government, and civil society) can come together to influence public habits and opinions, for mutual benefit, with the objective of improving population health. In a time when consumer awareness, purchase patterns, and tastes are rapidly changing, equally important is the process by which this partnership executed their strategy, because addressing public health issues related to diet will, in many cases, necessitate product reformulation and potentially (difficult ) adjustments in food company supply chain management, marketing campaigns, and practices. It also, we believe, requires a change in how policy makers and public health actors communicate needed changes to the public.

As the DWGP continues its promotion of whole grains consumption, this case study examines the motivations, the process, and the progress of this unique campaign. The Partners first created an availability of wholegrain products in the marketplace and then generated demand by fostering in the Danish population an understanding of the importance of whole grains to their daily diet along with a desire to return to some of the wholesome whole grain foods that had been part of the traditional Danish diet. While there is little data to support a cause-and-effect connection between the marketing campaign and the marked increase in whole grains consumption in the Danish public over the same time period, the correlation is remarkable. More importantly, the careful process by which the Partnership was created and has been nurtured holds important lessons for how crucial components of a society can work together towards the shared goal of improving overall health. A major learning is that all participants must be aligned around the same goal, so that along with the intended benefits to individuals and society, the partner stakeholders (industry, public health initiatives, and NGOs) reap the rewards for their involvement as well. Transparency and equitable dealing among the partners strengthens efficiency and thus effectiveness. Another important lesson is that the results should be measurable. The end users who are targeted by the campaign should have a clear way to identify the campaign message, and visual reinforcement is highly impactful. These are the main lessons of the Danish Whole Grain Partnership.



## 17. Introduction

Across the globe, changes in the dietary patterns of populations have led to “increasing consumption of ultra-processed food” (Swinburn, et al., 2019, p. 793) that corresponds with a “remarkably reduced consumption” of dietary fibre (Sarker & Rahman, 2017, p. 296). The National Institutes of Health (NIH), a U.S. governmental body, has long touted the importance of dietary fibre to human health (National Research Council, 1989). However, as a recent *Lancet* report observed, “Industries with vested interests, such as transnational food and beverage manufacturers, are powerful and highly resourced lobbying forces that have opposed governments’ attempts” to reverse harmful dietary trends (Swinburn, et al., 2019, p. 797). Nevertheless, these same industries are not averse to jumping on the healthy fibre bandwagon when they can profit and even grow their businesses by doing so. For instance, a recent industry report by sugar manufacturer Tate & Lyle remarked, “only one set of ingredients in the food science toolkit enables manufacturers to appeal to the demand for added health benefits and to solve significant formulation challenges: *fibres*” (Tate & Lyle, 2017, p. 5; emphasis added). This convergence of interests from the private and public sectors is the essence of the story behind the Danish Whole Grain Partnership (DWGP).

## 18. Establishing the Danish Whole Grain Partnership

The founding of the Danish Whole Grain Partnership (DWGP) was the direct result of four important events:

(1) A summit that highlighted the presence of excessive fat in the Danish diet and the Danes’ need for a more healthy diet; (2) the collaboration of two of the key organizations (the Danish Cancer Society and the Danish Veterinary and Food Administration) in the ‘Six-a-Day’ campaign; (3) the increasing popularity of the Atkins diet in Denmark that turned the traditional food pyramid upside down, creating a decline in bread sales; and (4) recent research results showed a negative correlation between whole grains consumption and cancer (Greve & Neess, 2014).

Morten Strunge Meyer, the Partnership’s initiator, was head of the Danish Cancer Society’s department for physical activity and diet and had been reviewing new research results showing a correlation between an intake of whole grains and beneficial impact on cancer (cancer prevention, cancer treatment, or both). Meyer had worked in the past with the Danish Veterinary and Food Administration (DVFA) on a public health social marketing campaign to increase intake of fruits and vegetables called the “Six-a-Day Campaign”. That campaign had been operated by a public–private partnership and had produced “positive” results (Greve & Neess, 2014, p. 7). One study of five workplace canteens (cafeterias) where the campaign was deployed, for example, reported,

*...significant increases in the total consumption of fruits and vegetables for all five work-site canteens from baseline to end-point, 70 g per customer on average [...]. The follow-up data collection showed that the canteens either maintained or significantly increased consumption, the average increase being 95 g per customer compared with baseline.* (Lassen et al., 2004, Abstract)

Danish researchers and public health advocates were also keenly interested in the findings of a study from the United States that tracked developments subsequent to the issuance in 2005 by the U.S. government of dietary guidelines which made specific recommendations about whole-grains: in particular, “that at least half of a person’s daily grain intake should come from whole-grains” ((Mancino, Kuchler, & Leibtag, 2008, p. 489). That study showed these new specific guidelines incentivized manufacturers to reformulate their products. As Mancino et al. (2008) reported,





*...these guidelines led to market competition among food manufacturers, whereby manufacturers offered consumers new and reformulated whole-grain products, increased availability of whole-grain foods and made it easier for consumers to act on whole-grain dietary recommendations. Thus, this research shows that competition among food manufacturers can play an important role in supporting dietary recommendations led by the public sector. (Mancino et al., 2008, p. 495)*

Also in 2007, the Danish Cancer Society and DVFA convened a meeting to discuss whole grains and health; they invited other important stakeholders, including not only other health NGOs but also industry representatives from the bread producers and millers of Denmark. At that meeting they decided to explore the possibility of creating a public–private partnership. Such a collaboration would be a win for each of the partners: bread manufacturers were experiencing declining sales and needed to reverse those losses, while public health practitioners were seeing an alarming rise in saturated fat intake in the national diet due to increased consumption of animal protein. And NGOs such as the Cancer Society were looking favourably at the potential benefits of whole grains as an additional behaviour-related prevention measure.

#### **14.4 Organization of the Partnership**

The DWGP is democratically organized and operated. The Partnership is comprised of a board, the partners, and an independent secretariat. The board is small, with only three people: the Chairman is from industry, government has one permanent representative, and the health NGO representative is alternately someone from the Heart Association or the Cancer Society.

The board has to recognize the role of each partner. Industry's role is to ensure that new or reformulated products are continually being added to the market. NGOs push industry to formulate products to earn the logo.

The secretariat is made up of three people: a campaign manager, a campaign assistant, and a student intern. The secretariat works for all the partners; it should be neutral, and not favour one type of partner over another. Its role is to understand the demands and challenges of each partner. The secretariat, and in particular the campaign manager, is responsible for day-to-day management of the campaign and its various programs and activities. The secretariat contributes, ideally with a demonstration of concrete results, and comes up with new and varied strategies for engaging the public. This staff has been critical to campaign success. The campaign manager has to remain focused on productive board-to-campaign manager and partnership–secretariat relationships, in order to ensure that dialogue is open and ongoing.

#### **14.5 Objectives and strategy to achieve these**

Denmark had a history of building successful partnerships between government, industry, and NGOs. The Six-a-Day campaign for the promotion of fruits and vegetables, mentioned earlier, was one such collaboration. They used an eye-catching campaign, with the targeted population being adults. The campaign was launched by the government, and later transferred to the industry. They also ran a smaller version of this programme targeted at children. Due to the success of the Six-a-Day campaign, the three types of partners had a relationship built on trust, and this contributed to the successful building and launching of the DWGP.

The Partnership set up and empowered the secretariat and campaign manager of the organization in order to pursue the strategy of the partnership. The aim of the Danish Whole Grain Partnership has been to create and employ target-oriented and effective methods to encourage people in Denmark to eat more whole grains, and thereby improve public health. To achieve this objective, the Partnership had to include stakeholders from the sectors and disciplines mentioned above. The



focus of DWGP is “to make whole grain and whole grain products available to Danes through new standards and markets supported by tasty and easily accessible whole grain products.”<sup>i</sup>

The DWGP philosophy is that the more organizations working towards the common vision and objectives, the stronger and more effective the results. Thus, cooperation and the development of the Partnership are fundamental to the strategy. The Partnership’s strategy consists of four coherent elements: (1) ensure availability; (2) develop new products; (3) promote the logo and maintain effective communication; and (4) create events and help shape new norms for incorporating whole grains in the national diet.

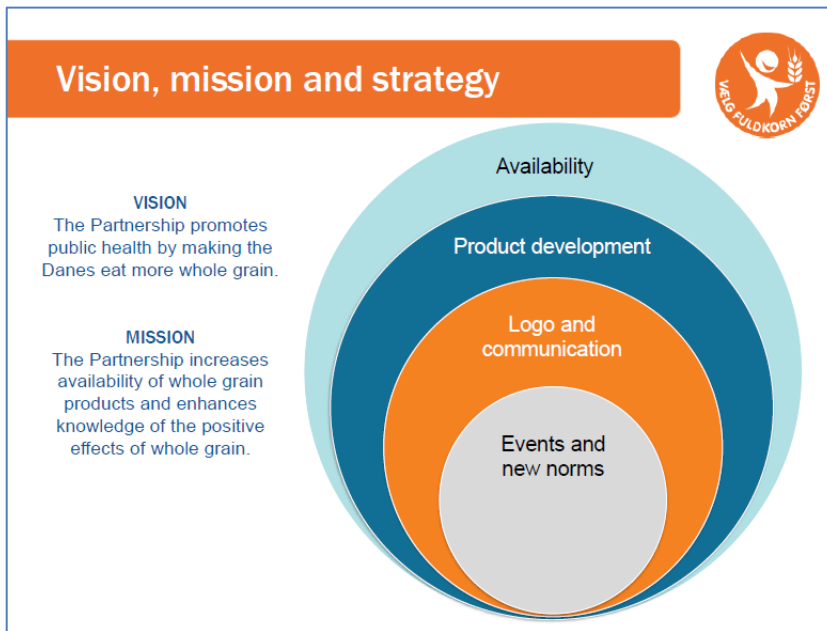


Figure 1. Vision, mission & strategy

While the benefits of whole grain in the diet had been widely assumed, it needed to be officially endorsed as ‘important’. The challenge was that the DVFA had never addressed a recommended daily guideline for the intake of whole grains (see Section 3). In addition, they had no standard definition of what constituted a whole grain. Another issue was the (as yet limited) availability of wholegrain products in the locations where people shopped and among the products they shopped for. And, while shopping for whole grains, how would the public be able to easily identify whole grains on the label?

#### 14.6 Defined roles and responsibilities for each partner

Three main categories of partners make up the DWGP: government agencies, health NGOs, and companies and organizations representing the food industry. Each partner’s role in the Partnership is a function of how they can most effectively contribute to it.

The principal governmental body in the Partnership, the DVFA, provides the regulatory and executive authority to the Partnership. It is the entity responsible for issuing national dietary guidelines, and as such, the DVFA established the criteria by which products ‘earn’ the Whole Grain logo. The Administration has focused on raising whole grains consumption among populations where consumption levels have remained lowest. It develops and disseminates targeted educational materials on nutrition and related topics in public schools and day care institutions. The DVFA also leverages other ongoing public health initiatives such as the Nordic Keyhole<sup>ii</sup> and the Meal Partnership in order to increase the impact of the DWGP campaign (Greve & Neess, 2014).



As for non-governmental organizations (health NGOs), their role is to “communicate information about the beneficial effects of whole grains and their risk-reducing effects on NCDs [non-communicable diseases] and add to the evidence base by funding clinical and epidemiological research” (Lourenço et al., 2019, para. 11). The research department of the Cancer Society provided increasingly stronger evidence on the health effects of whole grains. Interestingly, this growth in evidence came at a faster rate after the Partnership was launched, indicating a synergetic effect between research and the Partnership.

Another critical NGO partner is the Danish National Food Institute (NFI), which in 2008 was commissioned to provide the scientific foundation for DVFA’s recommendation to the Danish public for how much whole grain people should be consuming each day. The NFI describes itself as an organization that “researches and communicates sustainable and value-adding solutions in the areas of food and health for the benefit of society and industry”.<sup>iii</sup> Part of Danish Technical University (DTU), NFI focuses on public health in relation to nutrition, food safety, environment, and health. The Institute’s activities include research; risk assessment; advisory to Danish, EU, and international authorities; and industry of food products throughout the food chain (from farm to table) and the impact on human health. NFI has monitored national food consumption patterns of the Danish population since 1985.

In addition to establishing the scientific basis for the importance of whole grains in a healthy diet, NFI-DTU have continued to research the connection between whole grains consumption and the prevention of cancer and other chronic diseases, as well as in addressing obesity. DTU has the additional responsibility of tracking the campaign’s progress and effectiveness in getting Danes to increase their grain intake.

With regard to the food industry, a limited number of companies were active in building the Partnership at first. The particular characteristics of the food sector involved (grain: millers and the bakery industry) meant that the involvement of a handful of producers, albeit the major ones, could cover 80%–90% of the market. Larger manufacturers of consumer packaged goods (CPG; e.g., Quaker Oats and Nestlé) and retailers (e.g., Coop Danmark and ALDI) joined the Partnership later on. Industry partners ensure the availability of wholegrain products, through product development and reformulation (more on this in Section 4.3 below).

Retail partners display the Whole Grain logo on product packaging and market and sell an ever-expanding variety of wholegrain products. Industry partners also promote campaign activities and contribute to communication, marketing, and public relations. Some industry partners also cooperate bilaterally with health NGOs, promoting and providing financial support for public awareness campaigns and materials. For example, Kohberg Bakery group A/S supports the Danish Cancer Society’s campaign to prevent breast cancer, and Lantmännen Schulstad Unibake A/S supports another of the Cancer Society’s campaigns, aimed at combatting cancer in men (Greve & Neess, 2014).



Figure 2. Stakeholders in the Partnership from industry, government, and health NGOs

### 14.7 Ensuring a unified approach

Deploying a unified approach was a central strategy. Partners established measurable performance goals, formulated their strategy, and made an action plan to reach those goals at three-year intervals. Campaign objectives were subsequently adjusted in response to continuous feedback. Aimed first at the general public, goals were adjusted in later years to target specific members of the population who were under-consuming whole grains.

In addition to their defined roles and responsibilities within DWGP, the partners nurtured a sense of camaraderie and team spirit, contributing to the unified approach. As such, they:

- Ensured mutual ownership and mutual benefits for all partners at the senior organizational level;
- Were precise about which partners were working on each project, and strove to find the synergies;
- Created a solid partnership agreement that set out the code of conduct for interaction, including a compliance strategy, established rules/criteria for who could join the partnership, and ensured that each partner's expectations were addressed;
- Documented assignments (targets) and followed through on executing these;
- Provided strong support to the secretariat in order to help partners reach their goals;



- Created visible results, focused on areas of key interest, and accepted that not all issues can be dealt with at the same time;
- Ensured that participants could see they were benefiting from the partnership, made sure that the partnership had support from partner organizations, acknowledged the time and commitment needed from each participant, and invited new partners to participate; and
- Created dynamic activities that attracted interest, established the framework for interesting meetings and attractive meeting spaces, produced newsletters and engaged in branding activities, developed focused campaigns that branded the partnership and reinforced the key message, and generated excitement and made partners proud of being part of the initiative.



Figure 3. Whole Grain logo “Choose whole grains first”

The Whole Grain logo (Figure 3) came about as a result of discussion amongst the three types of partners. Initially, there were no plans to have a logo. However, industry representatives in the Partnership began requesting that an easily recognizable logo be established as part of any social marketing or commercial marketing campaign that the Partnership would establish. NGOs and government were not keen on producing “yet another logo”, fearing it would cause confusion, but the industry partners felt it was absolutely crucial to have a logo. The partners concluded that the advantages of having a logo would benefit not only trade and retail, but the governmental and NGO partners as well, because *“it would facilitate the calculation of how many products were sold as wholegrain products”* (Greve & Neess, 2014, p. 10).

In the end, the government partners, who were reluctant at first, agreed to a logo because the industry partners explained it would motivate producers to add whole grains to existing refined-grain products (stealth reformulation) that could not otherwise comply with the criteria to merit the logo. Stealth reformulation was a secondary, but key goal of the NGO and government partners in the partnership. The Whole Grain logo would be displayed on packaging and should clearly signal to consumers that the product met the whole grains criteria. Government representatives were also mindful that, as they paved the way for the package claims and a greater availability of whole grains in products, those products should not have the unintended consequence of containing other ingredients such as fat, sugar, or salt, in amounts that would neutralize or even counteract the benefits of the wholegrain components.

## 19. Scientific background

The multi-stakeholder Partnership and the subsequent campaign needed to be built on a solid foundation of scientific evidence for the importance of whole grains to the diet. European Union laws



on nutrition and health claims (in particular, Regulation [EC] No 1924/2006<sup>iv</sup>) strictly regulate what can be said about the beneficial effects of defined foods. There is no authorized claim regarding ‘whole grains’ in the EU. However, limited claims can be made about wheat bran (increase in faecal bulk or transit time) or rye fibre (improvement of bowel function). But no claim can be made regarding improvement of cardiovascular function, cancer, or diabetes risk, despite a growing body of evidence showing the positive impact of the consumption of whole grains as compared to refined grains on those outcomes. In contrast, the US Food and Drug Administration (FDA) authorize the use of claims linking whole grains consumption with reductions in heart diseases and certain cancers.

As a result, in Europe manufacturers cannot communicate about the benefits of whole grains consumption (the only communication possible is about lower gastrointestinal function, which may not be seen as a convincing marketing argument by some manufacturers). The first step was to change the government’s dietary guidelines and recommendations to Danes on whole grains after establishing a scientifically sound basis for doing so.

#### 14.8 Ensuring a scientific basis

Relying on folk wisdom and ‘common sense’ would not be sufficient: claiming that wholegrain products were good for consumers had to rest on a solid, scientific basis. The Danish Food Institute produced a report in 2008 in which they defined the term and the concept of ‘whole grain’. The report also described the health aspects of whole grains and proposed a scientifically-based recommendation for an average daily intake of whole grains (see Section 3.2; Danish Food Institute, 2008). In that same report, a baseline measurement of Denmark’s whole grains consumption was established. That was an average daily intake of 36 grams/10MJ per day (Danish Food Institute, 2008). According to Bente Stærk of the DVFA,

*If you follow the 10 recommended dietary guidelines, your diet should provide you with all nutrients needed to help prevent cancer, heart disease, obesity and diabetes. This was something that the Danish Food Administration helped to provide through ministerial financing of research at the Danish Food Institute. (Greve & Neess, 2014, p. 9)*

The 2008 report by the Danish Food Institute led to the reformulation of the national dietary guidelines relating to whole grains, with the Danish Food Administration as the key driver. This provided the regulatory and scientific basis for the development of the Whole Grain logo, which could then be used by CPG manufacturers, placing the logo on their products so as to help consumers identify wholegrain products, and this would also in turn promote the dietary guidelines—a continuous positive feedback loop.

Along with the Whole Grain logo, the DWGP developed and distributed a user manual for the logo. The guidelines in the manual were written

*...to ensure that the Danish whole grain logo and [t]hereby the message on eating more whole grains is spread out widely among the Danish population. In addition, these guidelines are used to control the use of the Danish whole grain logo such that its authenticity, merit, and its message’s credibility are preserved at all times. (DWGP, 2020, p. 5)*

Products with the Whole Grain logo must meet certain standards in order to be recognized as an endorsed wholegrain product. This quality standard has been at a high level from the start and is also the reason why some companies are not part of the Partnership, due to their lack of sufficient wholegrain products.



## 14.9 Establishing a baseline

Whole grain intakes were estimated from the Danish national dietary survey. The survey called the “Diet, habit and physical activity survey” was conducted between 2000 and 2004 by the Danish Food Institute (DTU). The survey sampled the whole population, with 5851 participants from 4 to 75 years of age. Participants were asked to fill in a seven-day dietary record (semi-closed diary). Specifically, in order to estimate whole grain intakes, the consumption of rye bread, wheat bread, biscuits, mueslis, pasta, rice and other cereals was surveyed. However, participants were not asked to declare the brand (or origin) of the food consumed. Hence, the whole grains content of the food consumed was not directly measured and had to be estimated. Consumption data from the survey was complemented by data about the average whole grains presence in the food items surveyed. Data on household purchases was used to estimate the average content of whole grains in the food products the Danish population is consuming. Household purchase data was obtained from the GfK<sup>v</sup> household panel from 1999/2000 and 2005/2006. Nutritional composition of cereals (unprocessed) was obtained from a market survey from 1998/1999. Manufacturers and millers were asked to provide the nutrition composition of their packaged products. A market share-weighted whole grains composition was created for each of the surveyed foods, and used to calculate whole grain intakes.

To evaluate if the whole grains content of products changed between 2000–2002 (the period of the survey) and 2006 (the year used for the baseline), the whole grains content of top-selling products in both years was compared. This was to ensure that the baseline estimate was as close as possible to the start of the Partnership. They found that the estimated whole grains content in bread and cereal products for 2000-2002 using GfK and other market survey data was similar to that of one of 2006’s top selling products, suggesting no change in whole grains content between the 2000–2002 survey and the start of the Partnership.

## 20. Creating the campaign

Of all of the European countries (and, in fact, of all the OECD countries,), Denmark, with a population of about 5.8 million people, ranks highest in income and social equality and has one of the lowest obesity rates in the European Union (EU).<sup>vi</sup> And, as a country, Denmark’s leadership and culture strongly value a sense of common responsibility for social welfare. It must be noted, however, that the relative size and ethnic homogeneity of the Danish population combined with its wealth and the value its culture puts on social welfare make it somewhat unique in the European Union.

### 14.10 Engagement with/from manufacturers and vendors

Some manufacturers have been formulating and reformulating foods using whole grains since the mid-2000s. The Partnership created an incentive for manufacturers operating in Denmark to formulate new foods with whole grains, and to reformulate existing foods so that they met the requirements for the logo. When the logo was launched, some products were already eligible for it (e.g., most rye breads, if their salt content was compliant with the Nordic Keyhole criteria). Other products had to be reformulated in order to merit the logo.

Moreover, the Partnership created incentive to reformulate components other than whole grains in foods. To earn the Whole Grain logo, foods need to comply with the Keyhole criteria. The Keyhole system had been launched in 1989, and its nutrient criteria were updated in 2015. This meant that some products with the Whole Grain logo had to be reformulated in order to keep the logo. One CPG manufacturer interviewed mentioned that the Keyhole criteria created as an incentive for reformulating some products in their portfolio. Those products contained sufficient percentages of



whole grains, but the revised Keyhole criteria meant that some products were no longer eligible for the Whole Grain logo. So those products were reformulated to decrease their sugar content in order to comply with the new Keyhole criteria.

Compliance with criteria for nutrients other than just whole grains is necessary to guarantee that the logo will not appear on unhealthy foods. Hence, it can be challenging to formulate compliant foods in some categories, for example biscuits/cookies. Another manufacturer raised the point that their objective was to ensure that consumers could opt for healthier products in all categories, and hence developed a biscuit compliant with the logo. Despite low sales, that manufacturer has maintained the product as an alternative available to health-conscious consumers.

The logo has not been enough of an incentive for all manufacturers, however. One manufacturer interviewed mentioned that their development and renovation of products was driven first and foremost by consumer trends. Other manufacturers were already reformulating their products to add more whole grains. In some cases, the Partnership created an incentive to reformulate some foods further; in others, the Partnership was not driving reformulation, but once developed, if the product was eligible for the Whole Grain logo (meaning it also met the Keyhole criteria), the logo was added on its packaging.

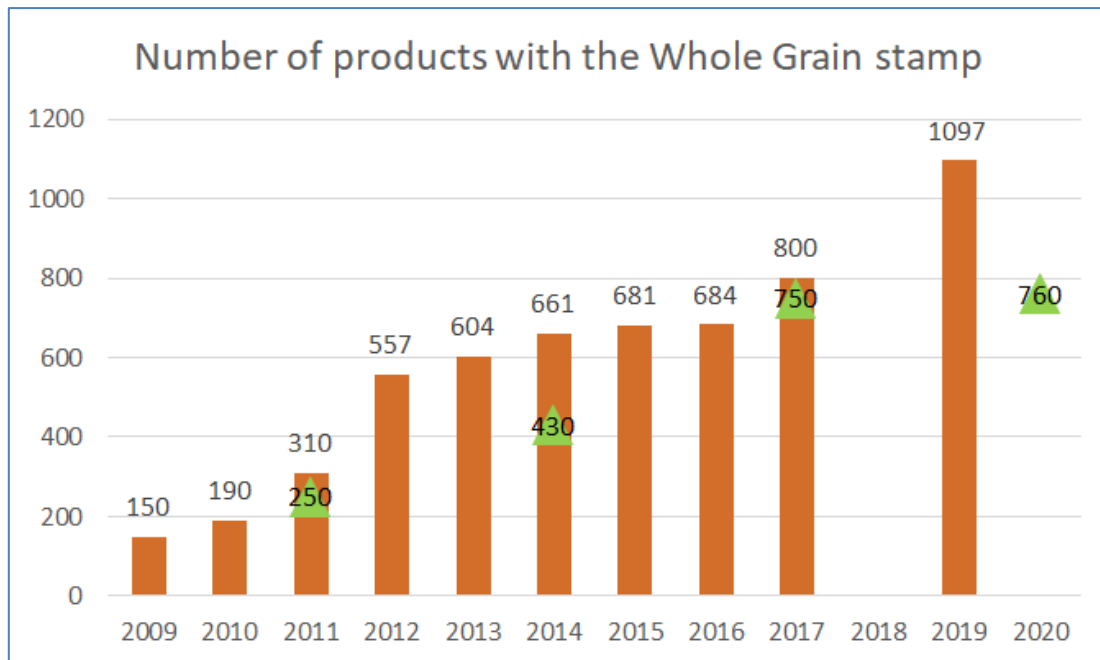
#### **14.11 Generating supply ahead of demand**

The Partnership was tasked with increasing the availability of whole grain products, a necessity prerequisite to increasing consumption. However, formulating foods with whole grains has some challenges linked to taste, texture, and stability over time. So the Partnership created a platform where manufacturers could exchange advice about how to formulate foods with whole grains.

Given that more and more manufacturers joined the Partnership over time, the increasing number of partners must have meant it was materially and economically feasible to formulate foods with whole grains. Also, with the increasing prevalence of products containing whole grains, it could be detrimental, from a marketing perspective, for a product not to have the logo. On the other hand, one manufacturer reported that the competitive advantage of having wholegrain products was diluted by the increasing number of products with the logo.

The Partnership set targets for the number of Whole Grain logo-bearing products that should be available at three-year intervals as the campaign progressed. The secretariat tracked the number of different products in the market which bore the logo. These year-by-year numbers are reported in Figure 4.





*Figure 4:* Number of different products with the Whole Grain logo from 2009 to 2019, compared to targets set by the Partnership (green triangles). Source: Lourenço et al. (2019, Table II)

The number of different products with the logo has increased from 150 in 2009, the first year of the Partnership, to 1097 products in September 2019, 10 years later.<sup>vii</sup> The initial targets (see Figure 4) were overachieved in 2011, 2014 and 2017, and the number of products in 2019 is 40% higher than the 2020 goal.

Products that can have the logo are flours, flour blends, rice, breakfast cereals and mueslis, porridge, breads and bread mixes (including rye bread), crispbreads and rusks, breadcrumbs, and noodles and pasta without filling. However, we have no data on how many products are in each category, nor if the relative distribution of products among these categories has changed in the past 10 years. Also, we do not know how many grain-based products were launched in total in those categories without the logo, thus we cannot know if this growth of products with the logo is different from the growth of products without the logo.

In addition, it is important to note that not all products with whole grains have the logo. We do not know what proportion of grain-based products are made with whole grains, nor if the number of products with whole grains but no logo has changed over time.

#### 14.12 Raising consumer awareness

The Whole Grain logo, launched in 2009,<sup>viii</sup> gave manufacturers the opportunity to communicate about the healthiness of whole grains in a regulatory context, whereas this would have been challenging in the absence of the logo. The logo of the Whole Grain Partnership created a communication opportunity that differentiates whole grain products from refined-grains products, for within the logo is a simple three-word slogan in Danish which translates as ‘Choose whole grains first’. Also, the communication regarding the Partnership (i.e., using the logo) raised the profiles of products bearing the logo. This creates communication opportunities unique to the logo.



### **14.13 Developing ‘a taste’ for whole grains: Silent reformulation**

A less well-known goal of the Partnership is to increase whole grain content in products made mainly of refined flour. Wholegrain products have a taste distinct from that of white flour products. Some consumers do not like the taste of whole grain (which can be bitter compared to refined grains). To get those consumers to benefit from whole grains consumption, commercial partners (millers, CPG manufacturers, etc.) were asked to insert a small quantity of whole grains in all their products that were made from refined grains. In interviews manufacturers reported that it was possible to add some wholegrain flour to white bread, for example, without changing its taste. Two manufacturers reported adding 5% or more of wholegrain flour to their breads made of refined flour. These products do not comply with the logo criteria, and the presence of whole grains is not communicated (not even on the food label) so as to avoid being rejected by consumers who do not like the taste of whole grains. The aim of this ‘silent reformulation’ is to progressively increase the whole grain content in all foods, so that reluctant consumers become accustomed to the taste of whole grains.

## **21. Launching the campaign**

Once the industry partners were able to report that a sufficient variety and quantity of wholegrain products had arrived on the market, the Partnership was ready to launch the social marketing phase of the campaign. At the start of the campaign the Partnership carried out a study aimed at understanding population segmentation as it impacted intakes. This was a qualitative anthropological study exploring the influence of social norms on attitudes affecting consumption of whole grains. Armed with the resulting insights, The Partnership planned to reach different segments of the Danish population via targeted campaigns and promotions.

DWGP took inspiration from the OldWays whole grains campaign run by the Whole Grains Council in the United States since 2003. The DWGP secretariat prepares the “toolbox” for an upcoming activity (or mini-campaign), and the partners pay for their materials. The Partnership also created a press toolkit to be used by municipalities. This way, they could share the story via local media.

### **14.14 On-the-ground/on-the-street marketing**

The campaign involved a substantial amount of face-to-face marketing via on-the-street promotions. For example, in 2012 they held the first National Whole Grain Day celebration, inspired by the U.S. National Whole Grain Sampling Day. The objective was to give Danes a ‘taste’ for whole grains. The team retrofitted an old VW bus and took it on a road trip from one end of Denmark to the other. In each town along the way, partners, volunteers, and celebrity “whole grain ambassadors” handed out wholegrain products for free. Thereafter, the Partnership has celebrated National Whole Grain Day every year.

### **14.15 Traditional media marketing**

Strong support from traditional media helped boost awareness. The DWGP used television, radio, and print media as channels through which individual partners as well as the Partnership could communicate to the public. This took many forms, including broadcast public service announcements and interviews by the press with members of the Partnership and organizers of the campaigns. To attract the interest of children, they created the “Whole Grain Hero”, a cartoon-like mascot for the campaign.



### 14.16 Social media marketing

Social media played a crucial role in spreading and increasing awareness. Via social and digital media the Partnership brought together and managed online communities interested in food, health, and cooking. They set up a website through which the Partnership could communicate to the public and vice versa: members of the public could contact and communicate with the Partnership. They launched promotions, mini-campaigns, and content (e.g., a “whole grain rap” music video and a “baked oatmeal” video) that was designed go viral and reach new segments of the population.

## 22. Measuring reach

The Partnership aimed to reach different segments of the Danish population via targeted campaigns and promotions. In 2012 they ran a mini-campaign aimed at young men and a separate one focused on young women, each time with a celebrity as the promoter of whole grains. The promotion targeting young women featured Danish football star Mathias “Zanka” Jørgensen. This campaign ran with the slogan “Do you want it all?” referring to whole grains. The message was distributed through posters, press events, go-cards, radio spots, and blogs. Some partners featured Zanka on their websites, pictured in a Whole Grain Partnership campaign photo, with the caption, “Why miss out on anything, when you can have it all?” (see Figure 5).<sup>ix</sup>

As Zanka explained, *“I am part of the campaign for the Danish Whole Grain Partnership because what you eat matters. And if I can draw attention and have young people eat more whole grains, it’s a little step in the right direction.”*



Figure 5. Zanke: “Why miss out on anything, when you can have it all?”



The secretariat tracked the reach of each activity, promotion, and mini-campaign. During that trek with the VW van, for instance, more than 7000 whole grain products were handed out, and the stunt generated local and national attention from the press, including radio interviews. The “whole grain rap” music video reached 320,000 people, the “baked oatmeal” video reached 600,000, while a “wholegrain veggie burger” promotion reached 260,000.<sup>x</sup>

The logo and the frequent promotional activities have had a measurable impact. According to DWGP data, a 2018 survey showed that 71% of the population in Denmark now recognized the Whole Grain logo and 53% look for the logo when buying products.<sup>xi</sup>

### 23. Measuring effects

The effectiveness of the DWGP campaign is being assessed by two types of consumption: economic and nutritional. These are indicated respectively by changes in sales/purchases of wholegrain products and changes in consumption of whole grains. The former is measured at the macro level by sales of wholegrain products and at the micro level by purchases of wholegrain products by households. Micro data are typically assessed by measuring actual intake of whole grains by individuals; however, micro data were not collected by the Partnership for this campaign.

#### 14.17 Economic consumption: Increase in sales of products with the logo

The Partnership tracked sales of wholegrain products from the outset. While not equating consumption, sales data are an indication of consumption. Also, manufacturers involved in the Partnership wanted to know if taking part in the Partnership could increase sales.

From 2011-2012 to 2012-2013, sales of products with the logo increased by 17% (Nielsen data)<sup>xii</sup>. In 2015, the Partnership published data on the sales of products with the logo. Using Nielsen data, they calculated the proportion of wholegrain products sold bearing the logo.<sup>xiii</sup>

Table 1

*Proportion of wholegrain products that have the Partnership logo (by volume: kg)*

<i>Nielsen data from April 2014 to March 2015</i>	<i>Proportion of products with the logo</i>
<i>Wholegrain bread</i>	29.2 %
<i>Wholegrain cereals</i>	45.4 %
<i>Wholegrain rye bread</i>	66.2 %

From 2016 to 2017, sales of products with the logo increased by 7%, while in the same period, the number of products with the logo increased by 17%.<sup>xiv</sup>

Sales of products with the Whole Grain logo are measured twice annually, using Nielsen retailer data (Greve & Neess, 2014). From December 2017 to December 2018, sales of wholegrain flour increased by 24%, compared to a 4% decrease in total flour. Sales of wholegrain products represented 11% of total flour sales.<sup>xv</sup>



#### **14.18 Nutritional intake: Measuring against the baseline**

Methods for the follow-up analysis were similar to the methods used at baseline (see Section 5.2). As was done at the start of the Partnership, a survey of Danish dietary intake, this time with more recent data (collected in 2011–2013), was used. Once again, data on household purchases was used to estimate the average content of whole grains in the food products that the Danish population was consuming. Data on market shares of cereal products was provided by Nielsen. They were obtained in 2011 from retailer sales data. Information on the whole grains content of the products representing the top 90% of sales was obtained from manufacturers.

In 2000/2004, the mean intake of whole grains was 32 grams per day (28g/day for children, 33g/day for adults). This was equivalent to 36g of whole grain per 10 megajoules (MJ). Only 6% of the population complied with the dietary guidelines (5% of children and 7% of adults). Wholegrain sources were mainly rye bread (58% of children's intake), oatmeal (12%), sandwiches (8%), and whole-wheat bread (7%).

#### **14.19 Increased whole grains consumption among Danish population**

In 2013, the mean intake reached 63g of whole grain per 10MJ. Children, who consumed on average 72g/10MJ, had a higher intake of whole grains (relative to energy intake) than did adults (61 g/MJ). Thirty percent of the population was compliant with the recommendations (43% of children and 27% of adults).

In 2013, DTU studied the population with the smallest intakes (the 25% of people with the lowest intakes) to see if the campaign was reaching the population most in need to increase their whole grain intakes. Women were more likely to have low whole grain intakes (relative to total energy intake) than men; however, men and women with the lowest intakes had the same average intake. While the average intake of the lowest quartile was 12g/10MJ in 2000-2004, it had almost doubled (23g/10MJ) by 2011-2013, showing that the increase in whole grain intakes happened for all level of intakes. In comparison, the quarter of the population that ate the most whole grains had an average intake of 103g/10MJ.

In September 2019, the Cancer Society announced that new research showed that Danes were consuming on average 82g of whole grain per 10MJ of food consumed,<sup>xvi</sup> which is more than the recommendation of 75g/10MJ. The figure was derived from intakes of participants included in the "Diet, cancer and health - Next generations" cohort. This study evaluates health of the children and grandchildren of participants of the Danish Cancer and Health study (the cohort is part of the European Prospective Investigation into Cancer and Nutrition [EPIC] consortium). The survey asked about the dietary behaviors of over 38,000 Danes between 2015 and 2018. Whole grains consumption was measured using a food frequency questionnaire validated with the measurement of a biomarker.<sup>xvii</sup> In comparison, between 1993 and 1997, women included in the older cohort "Danish, Cancer and Health" were consuming around 31g of whole grain per 10MJ (25g/day: Wu et al., 2019).

## **24. Comparison to whole grains consumption trends elsewhere in Europe**

It was important for the Partnership to evaluate the data from the campaign in the broader context of other Nordic countries, other European countries, and other countries worldwide.



#### 14.20 Intakes in various countries

Whole grain intakes of the Danish population can be compared with intakes from other population in the same region (Nordic countries) and elsewhere in the world. The evaluation of whole grains consumption is challenging for several reasons: whole grain content in foods is not labelled, there is no commonly measured biomarker for total whole grain intakes,<sup>xviii</sup> and wholegrain products are not easily identifiable by all consumers.

The Danish dietary survey used to estimate whole grain intakes in Denmark (see Section 3.2) is part of the EPIC cohort; however, data on the whole grain intake in the full cohort is not available. Kyrø and colleagues approximated wholegrain intake with fibre intakes from cereals; they showed that intakes were highest in Nordic countries and Germany, and lower in countries known to follow a Mediterranean diet pattern (Greece, Spain, and to a lesser extent, France) (Kyrø et al., 2014; Figure 6).

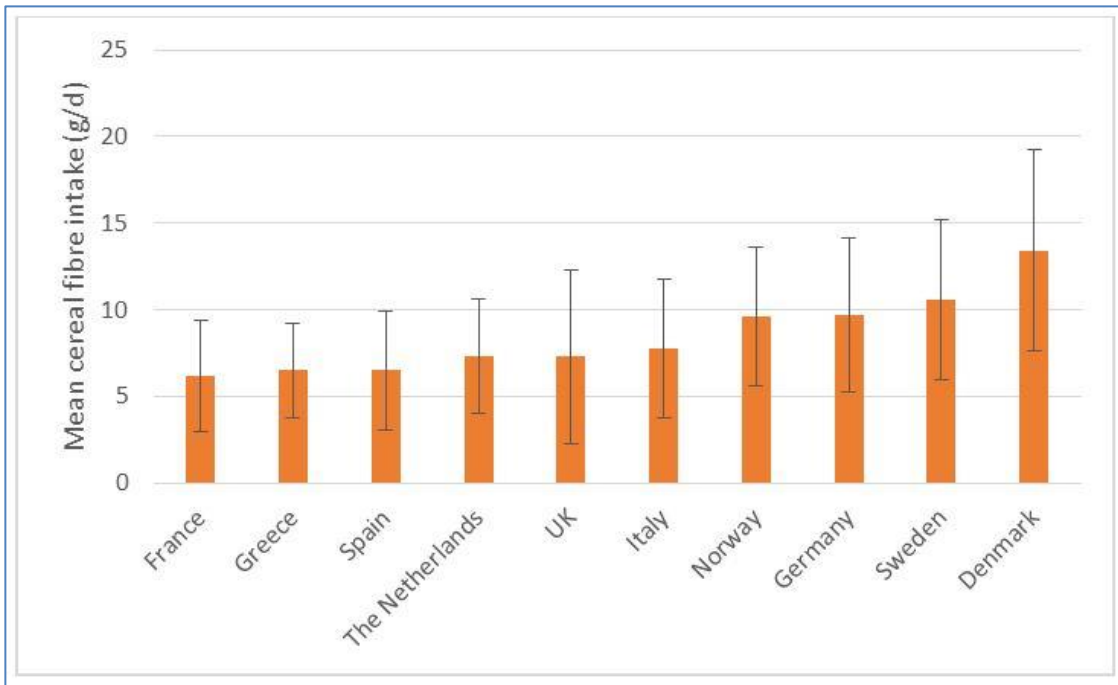


Figure 6. Fibre intakes from cereals in EPIC cohort, used as a proxy for whole grain intakes Source: Kyrø et al., 2014

The Global Dietary Database initiative also estimated wholegrain intakes around the world using data from governments (health agencies) and academic research. For the countries where whole grain was not measured, they built a model to estimate the wholegrain intakes, taking into consideration dietary patterns and fibre intakes. Their estimation (in Figures 7 & 8) shows that countries that are still transitioning from a traditional diet relying mostly on grains to a more complex diet have, unexpectedly, the highest intakes of whole grains. Amongst countries that have fully completed the nutrition transition, the Nordic countries have one of the highest intakes.

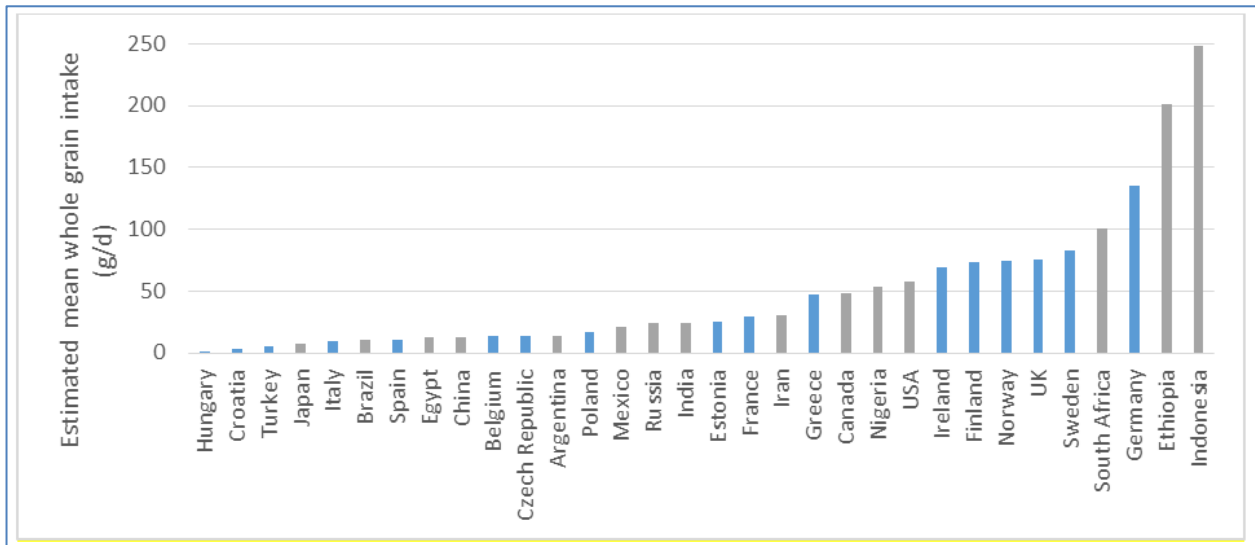


Figure 7. Estimated wholegrain intakes in Europe (blue bars) and a few other countries (grey bars) from the Global Dietary Database, using 2010 methods (and older data)<sup>xix</sup>

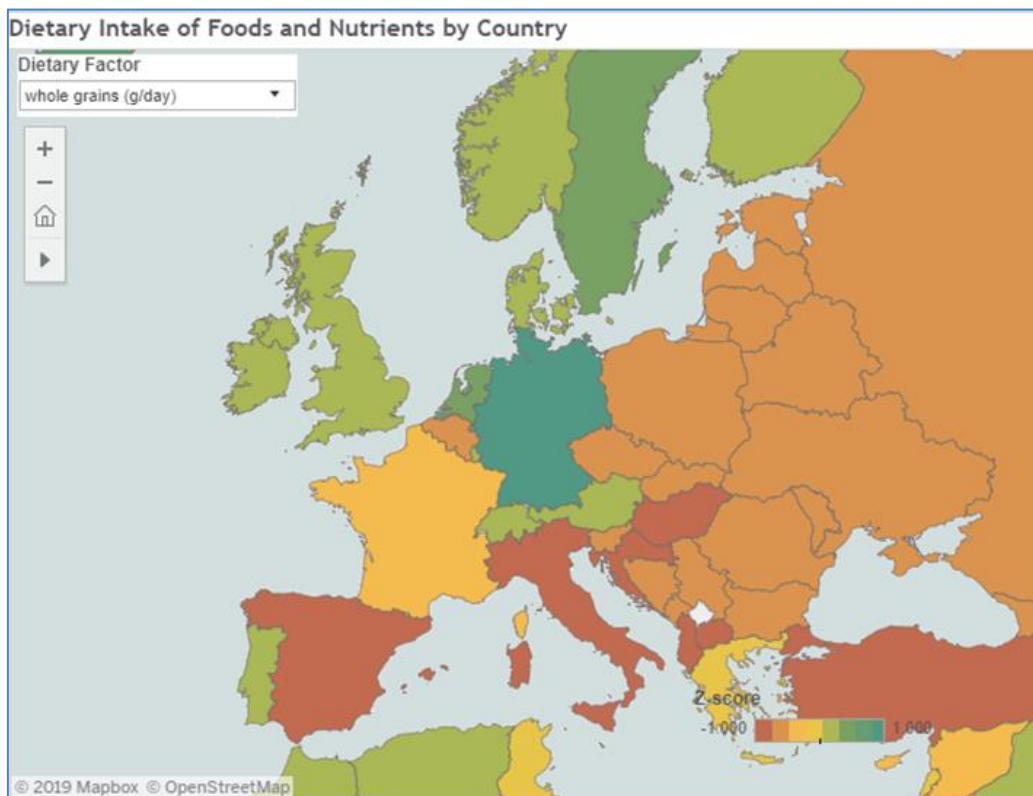


Figure 8. Map of estimated wholegrain intakes in Europe from the Global Dietary Database, using 2010 methods (and older data)<sup>xx</sup>



## 14.21 Recent trends in whole grains intakes

In the Nordic region and in Germany, wholegrain intakes are known to be higher than in Southern Europe, mainly linked to rye bread consumption (as opposed to refined wheat bread). Differences in wholegrain intakes amongst Nordic countries exist; for instance, among females during the period 1995–2000, Norwegian women had the highest intake of whole grains (median 44g/day), followed by Swedish women (35g/day) and lastly Danish women (31g/day; Kyrø et al., 2012).

More recently, the Nordic Monitoring System evaluated the change in wholegrain bread consumption in Iceland, Denmark, Sweden, Norway, and Finland (Matthiessen et al., 2014). They recorded a decrease in the percentage of the population having more than half of their bread intake from wholegrain bread, between 2011 and 2014 in the region. Overall in the region, for 95.5% of adults the majority (more than half) of the bread they consumed was whole grain in 2011; this percentage decreased to 94.6% in 2014. The change was not substantial in Denmark (with around 96-97% of the population consuming mainly wholegrain bread in 2014). From 2011 to 2014 the average number of slices consumed per day decreased from 3.7 to 3.3 in the Nordic region—and from 3.8 to 3.3 in Denmark.

According to the same survey, for the Nordic region as a whole, the proportion of young adults (18-24y) consuming most of their bread as whole grain increased between 2011 and 2014, while the average number of slices of wholegrain bread decreased. This highlights a trend towards a lower consumption of bread, concurrently with a trend towards (other) wholegrain products. This was not observed for older age groups. Compared to Kyrø and colleagues' (2014) study described earlier, the Nordic Monitoring survey showed that Danish women had an average intake of wholegrain bread higher than that of Swedish women (3.2 slices/day vs. 2.0 slices/day), but lower than that of Norwegian women (3.9 slices/day). This may suggest that the partnership was successful in increasing the consumption of wholegrain bread in Denmark for that period.

It is worth noting that even if some indicators of wholegrain consumption decreased between 2011 and 2014, wholegrain consumption in Denmark it is still remarkably high. For comparison, a study in the United Kingdom showed that 18% of adults do not consume whole grains at all (Mann, Pearce, McKeivith, Thielecke, & Seal, 2015). In the United States, a study showed that 27% of adolescents did not consume wholegrain products at all in 2011-2012 (Tester, Leung, Leak, & Laraia, 2017).

Elsewhere in the world, trends in wholegrain intakes have been measured in the U.S. population. There was no change in wholegrain intake between 2001 and 2010 (McGill, Fulgoni, & Devareddy, 2015). Wholegrain sources for U.S. children and adolescents were mostly ready-to-eat cereals (31% of intakes, decreasing intakes between 2001 and 2010), crackers and grain-based snacks (21% of wholegrain intake, no change over time) and breads (21% of wholegrain intake, small increase between 2001 and 2010). Subsequent research showed an increase in wholegrain consumption between 2005 and 2012 (Tester et al., 2017). However, this increase was only found in adolescents living in households with higher incomes. In this latter population the ratio of whole grains to total grain increased over time, showing a shift towards whole grains, rather than an increase in consumption of grain-based products. There was no change in the wholegrain intake of the most deprived adolescents (Tester et al., 2017).

## 25. Learnings, conclusions, and recommendations

From the Danish Whole Grain Partnership initiative, key learnings have emerged about the strength of public–private partnerships and the role of intentionality in forming such a partnership.





The use of social marketing and earned media are important to public health campaigns, and the uniformity of voice from each of the partners is important. Also, where possible, campaigns should ensure that key cultural influencers can be recruited to set an example of new, healthier norms.

### 14.22 Challenges

Measuring actual intakes has not been achieved to the desirable level of granularity (see Section 7 above). Monitoring product composition has also been a challenge. The Partnership would like to get the food service market (such as cafeterias/canteens and restaurants) more involved.

More granular data at baseline and after the implementation of the initiative would have been helpful to understand who benefited from the initiative, and to what extent whole grain intakes increased. The Partnership noticed that although the proportion of people having a low whole grain intakes decreased, disparities remained. The Partnership then began trying to reach the most deprived groups to help them increase their whole grain intake (Greve and Neess, 2014). A good understanding of baseline intakes is needed to ensure an initiative is not at risk of widening disparities, and it could help to reduce such gaps. Mean fibre intakes (a measure that could be used as a proxy for whole grain intakes) showed more variability in younger adults than in older adults (Stephen, 2017). Also, men tend to have higher fibre intakes as they have a higher energy need (Stephen, 2017). In addition to mean intakes in different groups, it is important to understand what types of whole grain foods are already consumed by the population, and identify what levers could be used to increase whole grain consumption. To that end, studies on acceptability of whole grain products are useful to understand possible barriers to whole grain consumption in a specific setting. For example, a study conducted in the UK concluded that the negative taste preconception of some participants was reversed once they got used to eating whole grain products. (Kuznesof, 2012).

Another challenge is related to the controversy about the impact of ultra-processed foods on health. The Danish whole grain logo applies to both processed foods and less processed foods, such as whole grain flour, or unprocessed grains, such as rice or oats. A logo implemented solely on ultra-processed foods would receive criticism as it could shift the consumption of grain products to ultra-processed foods, at the cost of unprocessed grain consumption.

The success of such an initiative relies on the number of manufacturers adopting the logo. A known feature of initiatives involving reformulation is that their effect on health depends on the amount of products reformulated (Gressier, Sassi, & Frost, 2020). Also, more manufacturers involved means a broader reach for the campaign. The more manufacturers that join such a partnership, the greater the number of products with whole grains that are introduced in the market, and the greater the demand for such products that can be created. Conversely, the launch of any initiative similar to the DWGP can be more challenging if a major manufacturer opposes the scheme.

### 14.23 Recommendations

The Partnership takes stock of the progress of the campaign at regular intervals. Based on the experiences of the first 10 years of their public–private partnership, these are their recommendations to others who might be interested in taking this route:

- ✓ Get the knowledge base right.
- ✓ Create measurable performance goals, formulate a strategy and make an action plan.
- ✓ Be precise about who is doing what and find the synergies between the partners.
- ✓ Ensure mutual benefits for all partners.



- ✓ Ensure ownership in partners own organisations.
- ✓ Document and follow up on targets.
- ✓ Prepare thoroughly: it took two years to establish the Partnership and another two years to get the operation in place.
- ✓ Create dynamic activities that attract interest.
- ✓ Create excitement and make partners proud of being part of the Partnership. Always be prepared to help partners.
- ✓ As a secretariat always contribute with concrete results and frequent high-quality activities.
- ✓ Rejuvenate the Partnership by finding new ways to cooperate with partners and with organizations outside the Partnership.

#### **14.24 Learnings and conclusions**

As Margrethe Vestager (European Commissioner for Competition) once said, “*The miracle of beginning is less about what we do, and more about the simple fact that we make a start.*”<sup>xxi</sup>

The main takeaway of this case study of the DWGP is that in order to create an effective multi-stakeholder campaign, all participants must be aligned around the same goal. That way, industry, public health initiatives, and NGOs all benefit—and the biggest winners are the consumers and the society as a whole. The results should be strategic and measurable. The consumer should have a clear way to identify the communication, often by a visual reinforcement at the point of purchase. These are the lessons of the Danish Whole Grain Partnership.

#### **26. Acknowledgement**

The research for this case study was carried out between May and September 2019. Much of the material came from documentation provided by DWGP, supplemented by studies done on the DWGP initiative. In order to get a fuller understanding of the narrative of the Partnership, the authors met in Copenhagen on 3 September 2019 with members of the secretariat of the Danish Whole Grain Partnership and project managers and researchers from the Danish Cancer Society. That meeting was augmented by face-to-face interviews with key actors in the Partnership. Phone interviews with representatives of industry partners (CPG manufacturers) were conducted between May and August 2019. The authors would like to thank the board, secretariat, and partners of the Danish Whole Grain Partnership for their generous time and assistance.



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- <sup>ii</sup> Nordic Keyhole is a logo that represents a nutrient profiling system which sets thresholds for salt, fats, and sugars in relevant categories.  
[https://www.who.int/nutrition/events/2013\\_FAO\\_WHO\\_workshop\\_frontofpack\\_nutritionlabelling\\_presentation\\_Sjolin.pdf?ua=1](https://www.who.int/nutrition/events/2013_FAO_WHO_workshop_frontofpack_nutritionlabelling_presentation_Sjolin.pdf?ua=1)
- <sup>iii</sup> [https://orbit.dtu.dk/en/organisations/national-food-institute\(cd166bd9-de95-4ce5-9ae1-9536bf51f2a9\).html](https://orbit.dtu.dk/en/organisations/national-food-institute(cd166bd9-de95-4ce5-9ae1-9536bf51f2a9).html)
- <sup>iv</sup> <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32006R1924>
- <sup>v</sup> GfK SE is Germany's largest market research institute, and the fourth largest market research organization in the world, Nielsen being the largest.
- <sup>vi</sup> Statistics Denmark. 2019. Population in Denmark. <https://www.dst.dk/en/Statistik/emner/befolkning-og-valg/befolkning-og-befolkningsfremskrivning/folketal>
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- <sup>viii</sup> Timeline of the Whole Grain Partnership. <https://fuldkorn.dk/english/>
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- <sup>xvii</sup> As of the date of this writing, the methodology and results of the study have not been published; we do not know if the whole grain intake estimate was derived from FFQ or alkylresorcinols (biomarker for whole grain intake).
- <sup>xviii</sup> Some researchers used plasma alkylresorcinol as a biomarker for wheat and rye intake. See: Kyro, C., Olsen, A., Bueno-De-Mesquita, H. B., Skeie, G., Loft, S., Åman, P., ... Landberg, R. (2014). Plasma alkylresorcinol concentrations, biomarkers of whole-grain wheat and rye intake, in the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort. *British Journal of Nutrition*, 111(10), 1881–1890.  
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