An Upfront Whitepaper

Psychographic Segmentation
and its Practical Application in Personalized Patient Engagement and Activation

Traditionally, healthcare has taken a "one size fits all" approach to patient engagement, assuming everyone with the same health condition thinks and acts alike. Patients are *people*, with distinct personalities, priorities and communication preferences. Psychographic segmentation recognizes these differences and leverages them in personalized patient engagement.

UPFRONT

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EXECUTIVE SUMMARY

Patient engagement is a critical factor in the achievement of positive health outcomes. Many studies have shown that patients who are actively engaged in their health, wellness and healthcare experience better health outcomes[1]. Patients who are active participants in their care and engage healthcare professionals productively are more likely to pursue regular health screenings and checkups and exhibit healthy behaviors such as exercise, proper nutrition and the avoidance of smoking or excessive drinking. Consequently, health issues are detected earlier or avoided altogether, leading to healthier people and less costs to the healthcare system.

Traditionally, healthcare has taken a "one size fits all" approach to patient engagement, assuming everyone with the same health condition thinks and acts alike. Patients are *people*, with distinct personalities, priorities and communication preferences. Two people may share common characteristics, such as health condition, demographic or socioeconomic variables, and they may even behave the same way, but their motivations may be different. If patients' personalities and motivations are different, an engagement message – whether clinical, educational or marketing – needs to also be different to activate desired behaviors.

Technology and digital health are playing a greater role in consumers' healthcare. Digital health promises to extend providers' care beyond the walls of the practice and engage patients on their terms. However, while health apps are increasingly available, addressing a spectrum of health, wellness and prevention needs, only one-fifth of Americans indicate they have regularly used a smartphone health or fitness app in the past 12 months[2].

Healthcare providers who engage patients through other digital channels, such as email, typically use the same channel for all patients, further reinforcing the "one size fits all" approach. Some patients may prefer email while others prefer text messages, phone calls, printed materials or a mix of channels, delivered with different frequencies and cadence.

Upfront, a platform for patient engagement and access, addresses healthcare consumers' needs for messaging and channel mix designed specifically for each individual patient. This is driven by insights identified by Upfront's Bartosch Patient Activation Institute. The Institute helps Upfront achieve Best-in-Class patient activation outcomes through data science, content and design, incorporating best practices from the fields of health communication and behavioral science. Psychographics provide a key source of insights pertaining to people's attitudes, personalities and lifestyles and are core to their motivations and communication preferences.

Upfront uses a proprietary and proven psychographic segmentation model developed by healthcare consumer experts from Procter & Gamble, the leading consumer products company and advertiser in the world.

Upfront leverages all these factors and enables messaging and channel mix (personalized microsite, email, text/SMS, Interactive Voice Response, print, interpersonal) designed to enhance the likelihood of patient activation. While psychographic segmentation has historically been challenging to operationalize and scale at the individual consumer level, Upfront achieves this to help its clients succeed with their clinical and business goals, including patient acquisition and retention.

PATIENTENGAGEMENT:
Theory vs. Reality

For years now, the healthcare industry has promoted the idea that providers and patients collaborating and communicating with each other is a powerful and critical concept. In a healthcare marketplace that has been evolving toward a model of consumerism, it is frequently said that patients want to be engaged in their own healthcare decisions, delivery and interactions. It is generally accepted that the more engaged a patient is, the more likely they are to be healthier and/or experience better health outcomes when issues arise.

Technology can also be a powerful enabler of patient engagement, extending care beyond the walls of the practice or hospital. Digital communications are becoming increasingly important as consumers are more and more reliant on mobile technologies (e.g., smartphones, tablets) and effective engagement means meeting consumers on their own terms. Moreover, 72% of consumers indicate that technology is important for managing their health[3].

However, despite years of trying, employing an extensive number of technologies and tools, and billions of dollars spent by providers, systems and payers, the reality is that robust patient engagement is still a big challenge:

While **90%** of people are interested in follow-up after a doctor's appointment, only 1/3 most prefer a live phone call[2]

Only **22%** of people used a smartphone app to manage their health in the last 12 months[2]

Only **4.7%** of people respond to SMS messages for advocacy and marketing by a practice[4]

Only **0.8%** of people responded to the same message via email[4]

With all the benefits of communications and collaboration technologies available, and a desire by providers and patients alike to embrace patient engagement, why are these technologies underperforming? Well, the truth is, patient engagement technologies haven't been very engaging.

The tools that providers use today - whether an Electronic Medical Record system (EMR), a CRM platform, or a set of point solutions – may be hindering effectiveness and patient activation.

When it comes to digital engagement, patients are generally treated as a homogenous population, as if they all think and behave the same way. Communications focus on a health issue rather than each patient as a unique, human individual with his or her own motivations, priorities and communication preferences. Patients typically receive the same communications and content in a "one size fits all" approach.

Additionally, many healthcare providers believe that throwing enough educational content at a patient is enough to drive positive behavior change. The more information the better, right? The answer is a definite "No."

Consider the percentage of physicians in the United States who are overweight or obese. Despite years of healthcare education and practice, as well as access to the world's leading medical information, over half of physicians are overweight or obese[5]. UCLA found that a quarter of all Licensed Practical Nurses smoke[6].

The most health-educated people in the world act in a way that is inconsistent with wellness and healthy living. How can we expect patients to make the right choices just by providing them with more and more information?

These approaches can disenfranchise patients – they process information differently and value different elements of information. Sending the same email to everyone may connect with some, but not the majority, of a target population.

Consequently:

- Patients feel overwhelmed and confused

- Patients are unable to make productive decisions

- Patients aren't motivated to act

- Patients don't make the information received a priority

Dr. Brennan Spiegel from Cedars-Sinai sums it up: *"Digital Health… is a behavioral science. Creating the tech isn't that hard part. The heard part is using the tech to change patient behavior."*

Effective engagement, in which the patient understands and internalizes information, is motivated to act upon it and provide reciprocal information, requires true personalization. Traditionally, personalization in digital communications simply meant adding the recipient's name in the introduction of an email or calling out a health condition he or she may be managing. Traditionally, mass approaches to patient engagement (whether for education or marketing) have been insufficient. Communications should appeal to the recipient's motivations through preferred channels.

To address this opportunity, healthcare providers can look toward the consumer products, retail and financial industries, who have pioneered true personalized engagement to influence choices and behaviors. One methodology they rely upon is consumer segmentation.

Digital Health is not a computer science or an engineering science. It is a… behavioral science. Creating tech isn't the hard part. The heard part is using the tech to change patient behavior.

Dr. Brennan Spiegel
Cedars-Sinai Medical Center
Fortune magazine

CONSUMER SEGMENTATION

Segmentation involves taking a heterogenous population of consumers and employing data analysis to break the population into smaller, more homogenous groups composed of individuals with shared traits. Healthcare organizations already do this to some degree:

01.

Demographic/Socioeconomic segmentation:

Grouping people by gender, age, ethnicity, income, education and other physical or situational characteristics. Women's health or senior health programs use these segmentation methods to better meet the needs of specific groups of patients. Social Determinants of Health (SDoH) are also data that can be used to meet the needs of higher risk or underserved patients.

02.

Health Condition/Status segmentation:

Grouping people according to a shared disease, a stage within a disease or degree of healthiness. Condition management programs or service line marketing are examples of such segmentation.

03.

Behavioral segmentation:

Grouping people according to their health behaviors, based on medical claims, hospital utilization data, screenings, etc. Predictive analytics make use of past behavioral data to anticipate future behaviors and medical needs.

Each segmentation method is useful and offers valuable insights on patients and other healthcare consumers. However, each method listed above stops short of explaining **why** people think and behave the way they do. Not all men think and act alike. Not all Hispanics think and act alike. Not all Millennials think and act alike. Not all patients with diabetes think and act alike.

Additionally, two people who behave the same way may not be motivated by the same things. These two people may show up in an Electronic Medical Record (EMR) with similar diagnoses, tests, labs and visit frequency; however, what compels them to seek care may be very different. For example, one patient may be motivated by a sense of duty to family, while another patient is driven by a need for personal control over a disease. Different motivations and priorities require different messages to activate and sustain desired behaviors.

So how does one identify these different motivations and priorities and group healthcare consumers accordingly? Psychographic segmentation.

PSYCHOGRAPHIC SEGMENTATION

Psychographics pertain to people's attitudes, beliefs, values, lifestyles and personalities. Psychographics are core to a person's motivations and communication preferences and help explain **why** people do what they do.

Psychographic segmentation divides consumers into sub-groups based on these shared psychological characteristics, including subconscious or conscious drivers of behavior. Developed in the 1970's, psychographic segmentation has been used extensively in consumer-focused industries by world-class companies such as Procter & Gamble, Walmart, CVS, Geico and Porsche [7] to design products, advertising, promotion and user experience. However, it is relatively new to healthcare.

Psychographic segmentation does not replace other forms of segmentation, it complements and supplements those forms of segmentation that healthcare organizations may already be using. It provides a "consumer lens" to interpret data from a patient's point of view, offering context that cannot be gleaned from other types of data and avoids a provider's or marketer's personal attitudes and biases.

These insights can help providers and healthcare organizations understand consumers' decision-making processes and improve the relevance and resonance of engagement – whether to drive patient acquisition and loyalty or improve health outcomes.

The Upfront Psychographic Segmentation Model

Upfront is a platform for patient engagement and access, personalizing messaging and digital channels (e.g., microsites, email, text/SMS, automated calls, etc.) using insights identified by Upfront's Bartosch Patient Activation Institute. The Institute helps Upfront achieve Best-in-Class patient activation outcomes through data science, content and design, incorporating best practices from the fields of health communication and behavioral science.

Psychographics are a key source of these insights, which enable Upfront to personalize all messaging and channel mix according to an individual's psychographic profile and activate patient behaviors in effective ways no other platform can achieve.

This psychographic segmentation model was developed by healthcare consumer experts from Procter & Gamble, who led such work for its Healthcare division since the early 2000's, developing several models and improving their predictability and practicality in application through several generations of the model. These psychographic segmentation models informed P&G strategy and were shared with institutional customers (payers, hospitals, retailers) as a value-added service.

These executives left P&G to bring psychographic segmentation and consumer insights to the healthcare market to help improve patient outcomes and provider marketing. After developing and validating a "fourth generation" healthcare consumer psychographic segmentation model (evolved from the three previous generations developed over the years at P&G), they joined Upfront to operationalize and scale psychographic segmentation on its digital platform to help personalize patient engagement across large populations along with other data and insights from Upfront's Bartosch Patient Activation Institute.

MODEL METHODOLOGY

Psychographic segmentation starts with the development of a survey that includes attitudinal, values- and belief-based statements, to which respondents react using a 5-point Likert Scale format – for example, from Strongly Agree to Strongly Disagree. The survey should be completed by a representative sample of consumers, based on the desired target audience.

Likert Scale
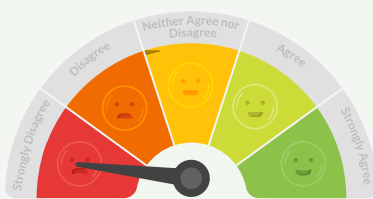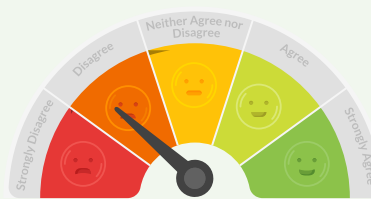
Strongly Disagree = 1

Disagree = 2

Neither Agree nor Disagree = 3

Agree = 4

Strongly Agree = 5

Upfront's model is based upon an online survey, initially fielded in 2013 that was completed by a representative sample of U.S. adults age 18+ with an over-quota of respondents with various health conditions, health insurance coverages and employment status (n = 4,878). This was to ensure that sub-populations important to Upfront's customers would offer sufficient base sizes for analyses and comparisons with a high level of statistical confidence (95%). The survey was fielded by Ipsos, a leading, global consumer market research firm.

The robust survey examined 384 attributes and yielded more than 15 million data points on consumer attitudes and behaviors regarding:

- **Health, wellness and healthcare delivery**

- **The roles of various healthcare professionals**

- **Rx and OTC medicines, including locations purchased and attitudes around brand vs generic**

- **Media preferences and trusted information sources influencing decisions around hospitals, health insurance and health products**

- **Plus, many other subjects**

Thus, this psychographic segmentation model would describe consumers' approaches to health and wellness in general versus a specific product or service category. This lends to a more flexible and broadly applicable model.

A factor analysis using statistical clustering procedures was conducted to examine response patterns to the survey questions. More than 90 segmentation solutions were examined, and the optimal solution was determined by profiling each solution on critical market evaluation variables. The optimal solution meets four criteria:

- **Provides the most differentiation when comparing segments**

- **Produces segments that are internally consistent**

- **Provides actionable market insights**

- **Creates solutions that are stable and reproducible**

The model should also balance predictability and practicality; while additional segments may add predictability to the model, too many segments are difficult to manage in a business or clinical application.

The Upfront psychographic model recognizes five unique segments, each with a different approach to health and requiring a different engagement strategy. This paper will cover these segments in-depth in the next section.

Statistical analysis identified 12 questions from the study to inform an algorithm that is 91.1% predictive as to which of the five segments a consumer belongs. Respondents indicate the degree to which they agree or disagree with the following 12 statements:

1. I believe that I can directly influence how long I will live, regardless of my family history

2. I'm more worried about other family members' health than my own

3. I prefer alternative medicine to standard medical practice

4. I believe alternative/holistic/natural medicines are effective for helping maintain my health and wellbeing

5. I don't let being sick get in the way of my work

6. There are better things in life to focus on than healthy behavior

7. I am successful in maintaining healthy nutritional habits

8. I will go to the doctor at the first sign of health concerns

9. My doctor is the most credible authority for my health and wellness needs

10. I actively seek information about nutrition and healthy diets

11. I would be willing to experience major delays in getting a doctor appointment if it meant everyone could get the healthcare they need

12. I give a significant amount of money to charity

Predictability ranges from 86% to 95% by individual segment. The attributes selected to classify respondents were statistically identified as the strongest predictors of segment classification. It is important to keep in mind that for each segment the the percentages are average classifications. Reapplication of the algorithm may yield estimates that vary from 5 to 7 percentage points above or below the average. External factors, such as question order, sample definition and respondent variability in the survey responses can have a significant impact on classification accuracy, both overall and by segment.

This quantitative study was followed by qualitative research known as Psychosymbology. Participants are recruited by segment for focus groups, in which a symbolic picture sorting and interpretation technique is used to surface unarticulated motivations and subconscious drivers unique to each segment.
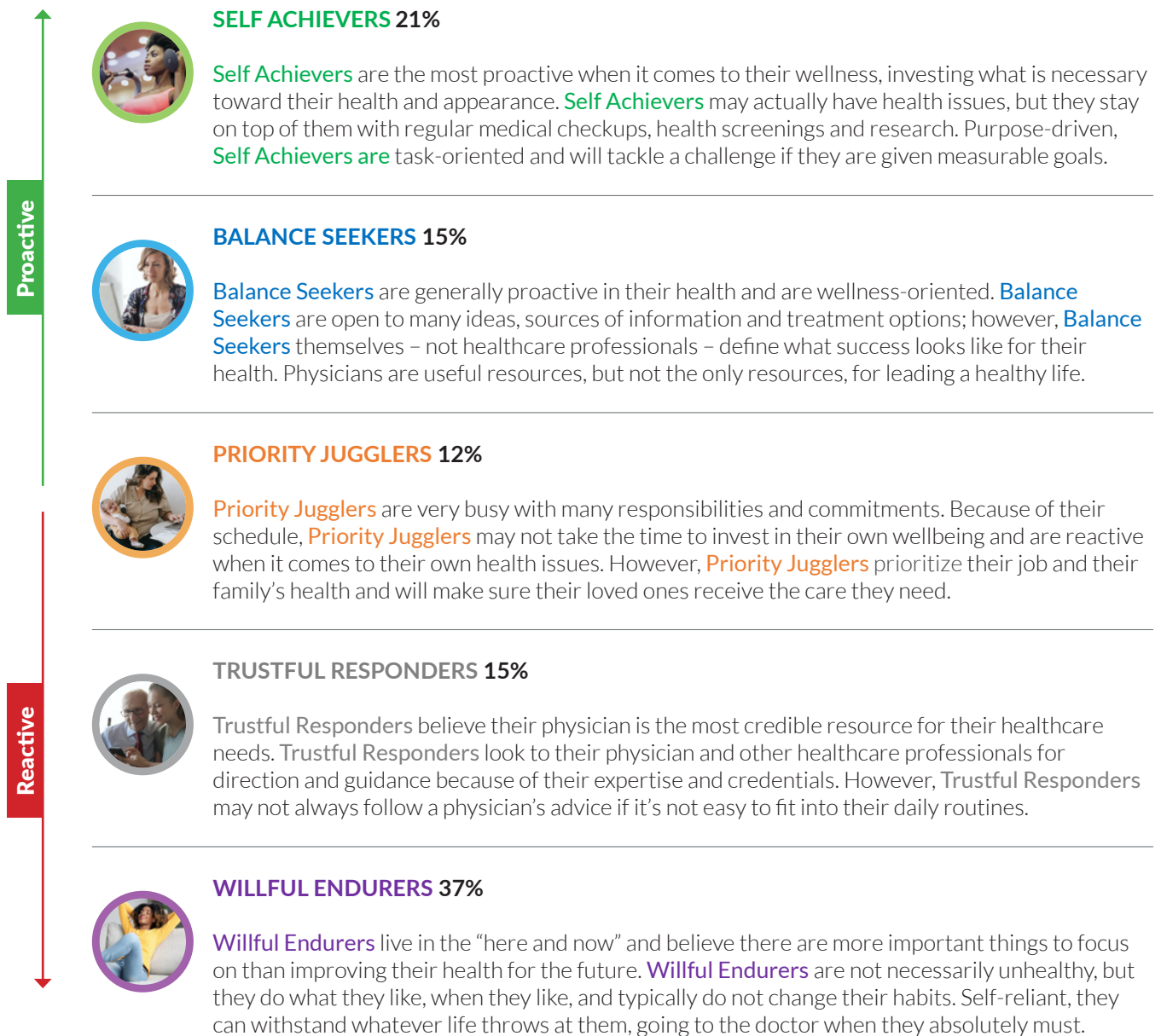
This helps bridge the gap between emotional and language centers in the brain, to help participants describe feelings and emotions associated with various aspects of health and healthcare. The same technique has been used – with remarkable success – by many P&G brands to inform marketing strategies.

THE UPFRONT PSYCHOGRAPHIC SEGMENTS

The five Upfront psychographic segments are distinct in their beliefs, attitudes, motivations and priorities. Some require directive guidance from healthcare professionals while others prefer options and choices for self-direction. Some segments will put doctors on a pedestal, while some believe doctors are just one of many sources of healthcare information. Some are health-proactive and wellness oriented while others are reactive or disengaged with health.

Figure 1 describes each of the five segments in detail, including their percentage of the U.S. population age 18+:

Figure 1. The Upfront Psychographic Segments

SELF ACHIEVERS 21%

Self Achievers are the most proactive when it comes to their wellness, investing what is necessary toward their health and appearance. Self Achievers may actually have health issues, but they stay on top of them with regular medical checkups, health screenings and research. Purpose-driven, Self Achievers are task-oriented and will tackle a challenge if they are given measurable goals.

BALANCE SEEKERS 15%

Balance Seekers are generally proactive in their health and are wellness-oriented. Balance Seekers are open to many ideas, sources of information and treatment options; however, Balance Seekers themselves – not healthcare professionals – define what success looks like for their health. Physicians are useful resources, but not the only resources, for leading a healthy life.

PRIORITY JUGGLERS 12%

Priority Jugglers are very busy with many responsibilities and commitments. Because of their schedule, Priority Jugglers may not take the time to invest in their own wellbeing and are reactive when it comes to their own health issues. However, Priority Jugglers prioritize their job and their family's health and will make sure their loved ones receive the care they need.

TRUSTFUL RESPONDERS 15%

Trustful Responders believe their physician is the most credible resource for their healthcare needs. Trustful Responders look to their physician and other healthcare professionals for direction and guidance because of their expertise and credentials. However, Trustful Responders may not always follow a physician's advice if it's not easy to fit into their daily routines.

WILLFUL ENDURERS 37%

Willful Endurers live in the "here and now" and believe there are more important things to focus on than improving their health for the future. Willful Endurers are not necessarily unhealthy, but they do what they like, when they like, and typically do not change their habits. Self-reliant, they can withstand whatever life throws at them, going to the doctor when they absolutely must.
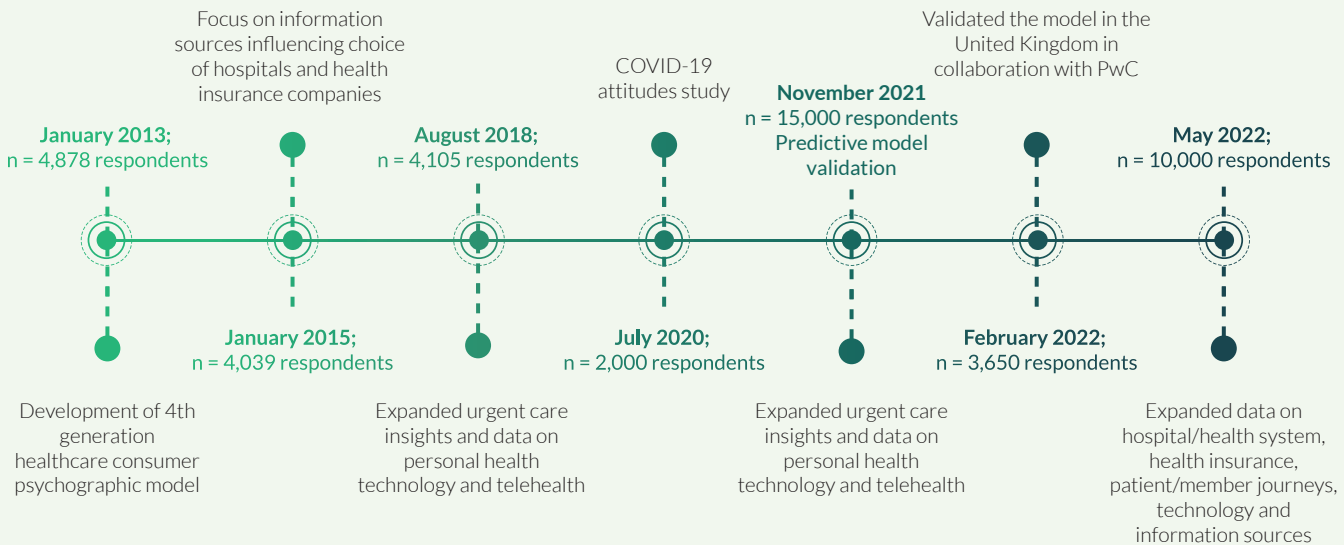
Proactive

Reactive

Note, two segments may behave the same way but their motivations for that behavior can be different. For example, a Self Achiever may go for an hour-long walk for aerobic exercise, because she knows it will burn 300 calories and is part of her plan and regimen for staying healthy.

On the other hand, a Balance Seeker will also go on an hour-long walk, but this is "me time" and a chance for the Balance Seeker to disengage from other responsibilities and think about things that are important to him. He is well aware the walk is healthy – he's wellness-oriented – but there is an enjoyment factor to this walk.

Both segments exhibit similar healthy behaviors, but the motivations are different. If the motivations are different, messaging to activate these behaviors must also be different. What one says to motivate a Self Achiever may fall flat with a Balance Seeker. All five segments require different engagement strategies.

MODEL STABILITY

Nationally representative market research studies were conducted over the years to verify the stability of the psychographic model and continue building extensive insights on the segments and healthcare consumer, in general. While many questions are repeated across studies for trend analysis, new topics were explored based on market and client needs.

Focus on information sources influencing choice of hospitals and health insurance companies

Validated the model in the United Kingdom in collaboration with PwC

COVID-19 attitudes study

January 2013; n = 4,878 respondents

August 2018; n = 4,105 respondents

November 2021 n = 15,000 respondents Predictive model validation

May 2022; n = 10,000 respondents

January 2015; n = 4,039 respondents

July 2020; n = 2,000 respondents

February 2022; n = 3,650 respondents

Development of 4th generation healthcare consumer psychographic model

Expanded urgent care insights and data on personal health technology and telehealth

Expanded urgent care insights and data on personal health technology and telehealth

Expanded data on hospital/health system, health insurance, patient/member journeys, technology and information sources

Across all studies the distribution among the psychographic segments, as well as each segment's attitudes and behaviors, remained fairly consistent. **Figure 2** illustrates this stability, offering a sample of the 12 survey questions used to classify the segments, with statistically significant (95% confidence) differences among segment responses.

Figure 2. Comparison of Segment Answers to Survey Questions 2013 - 2022

Psychographic Segment Classifier Questions (Strongly Agree/Agree)	Self Achievers a			Balance Seekers b			Priority Jugglers c			Trustful Responders d			Willful Endurers e		
Years	2013	2018	2022	2013	2018	2022	2013	2018	2022	2013	2018	2022	2013	2018	2022
I'm more worried about other family members' health than my own	31%	41%	47%	59% ad	64% ad	65% ad	73% abde	71% abde	76% abde	49% a	54% a	57% a	55% ad	61% ad	67% ad
I prefer alternative medicine to standard medical practice	12% cd	16% cd	21% cd	52% acde	58% acde	62% acde	1%	0%	0%	3%	1%	3% c	31% acd	43% acd	45% acd
I don't let being sick get in the way of my work	47%	55% d	49%	68% ade	66% ade	66% ade	83% abde	79% abde	78% abde	45%	47%	46%	48%	55% d	51% d
I am successful maintaining healthy nutritional habits	73% bcde	76% bcde	77% bcde	66% cde	67% cde	61% cde	39% de	40%	44%	32% e	37%	44%	27%	43%	43%
I will go to the doctor at the first sign of health concerns	58% bce	66% bce	71% bce	7% c	5% c	6% c	3%	3%	3%	64% abce	76% abce	78% abce	23% bc	36% bc	40% bc
My doctor is the most credible authority for my health & wellness needs	76% bce	81% bce	81% bce	19%	21%	20%	64%	69%	75%	86% abce	90% abce	91% abce	48% b	52% b	58% b

Additional tables and charts comparing the psychographic segments will be shared in the next section of the paper. However, the predictive power of the model and its ability to isolate the differences among segments is underscored by Priority Jugglers' attitude regarding alternative medicine in **Figure 2** above: how often does a market research survey achieve near unanimity among thousands of respondents in their agreement (or, in this case, disagreement) to a question or topic?

In addition to the national general healthcare consumer studies, category-specific studies we also conducted over the years for clients to determine whether the psychographic model could be applied in certain markets or applications. Studies have been conducted on produce marketing (n = 500 respondents), dental care (n = 500 respondents), and charitable giving (n = 1,000 respondents), and the psychographic segments were consistent in distribution and attitudes relative to other studies, reinforcing the stability of the model.

PSYCHOGRAPHIC SEGMENT INSIGHTS AND DIFFERENCES

More than a quarter billion data points have been collected across Upfront's market research studies, enabling a significant depth and breadth of insights and understanding regarding healthcare consumers and the psychographic segments. While it is beyond the scope of this paper to share a comprehensive inventory of these insights, this section will provide a sample of 2022 study data to illustrate the similarities and differences among the segments.

Important to keep in mind in that the five psychographic segments appear in every subpopulation, but the distribution of the segments may differ in each group. **Figure 3** provides a selection of demographic and socioeconomic groups to show the varying segment distributions.

Willful Endurers represent the largest segment in the General Population (37%), but they are also overdeveloped among certain subpopulations, such as Millennials (47%) and Medicaid members (49%). Self Achievers have a higher representation among African Americans and patients with diabetes relative to the General Population.

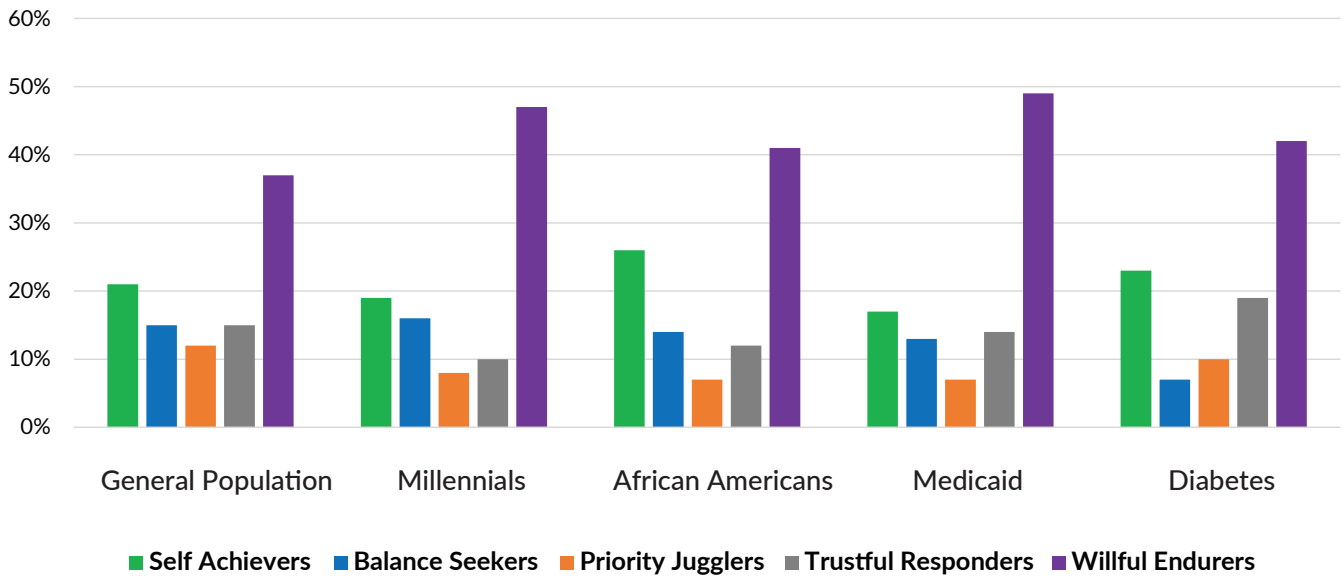**Figure 3.** Psychographic Segment Distribution Across Subpopulations

Figure 4. offers further insights among segments regarding proactive versus reactive or disengaged approaches to health and wellness. Self Achievers and Balance Seekers are the most likely to feel like they can control their health status regardless of family history, and these segments are much more likely to be dedicated to nutrition and healthy diets.

Figure 4. Health Attitudes (Strongly Agree/Agree)
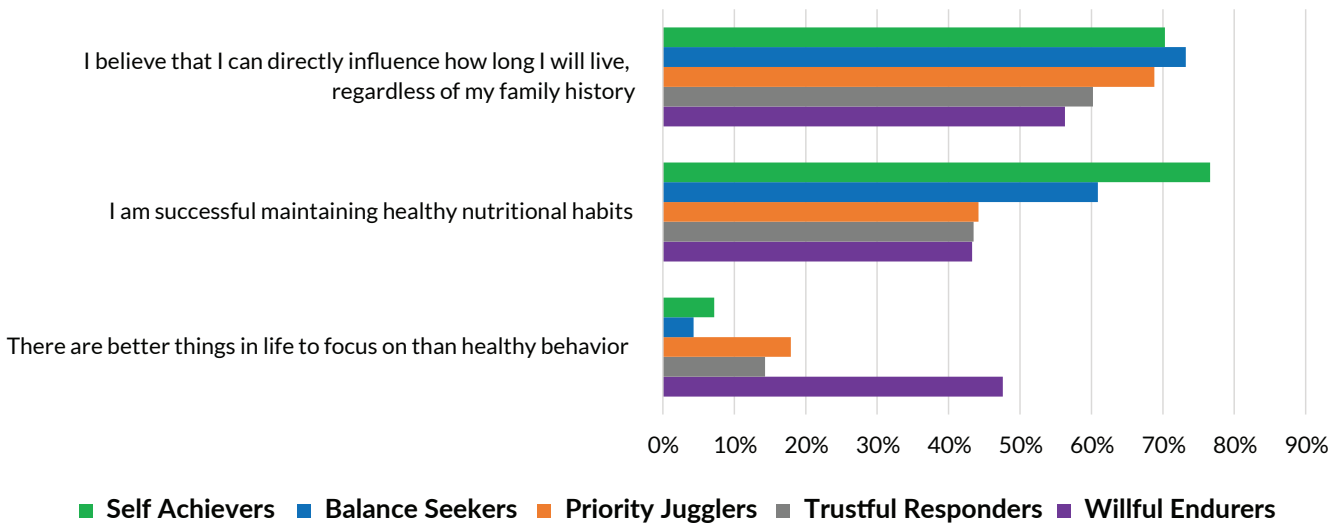
On the other hand, Willful Endurers are the most likely to believe there are better things in life to focus on than healthy behavior. The good news is that more than 50% of Willful Endurers disagree, but these data help providers anticipate which patients may require extra motivation or intervention.

Demonstrating how two segments can exhibit the same behaviors but have different attitudes and priorities, Self Achievers and Balance Seekers are the most health-proactive, but they differ significantly in their estimation of physicians. **Figure 5** shows that Self Achievers and Trustful Responders consider physicians as the go-to authority for health and wellness. However, Balance Seekers are the least likely to favor physicians as the most important factor in their decisions. Interestingly, Upfront market research found that Balance Seekers with cancer are even less likely to prioritize physician advice.

Figure 5. Attitudes Regarding Physicians (Strongly Agree/Agree)


Legend: ■ Self Achievers ■ Balance Seekers ■ Priority Jugglers ■ Trustful Responders ■ Willful Endurers
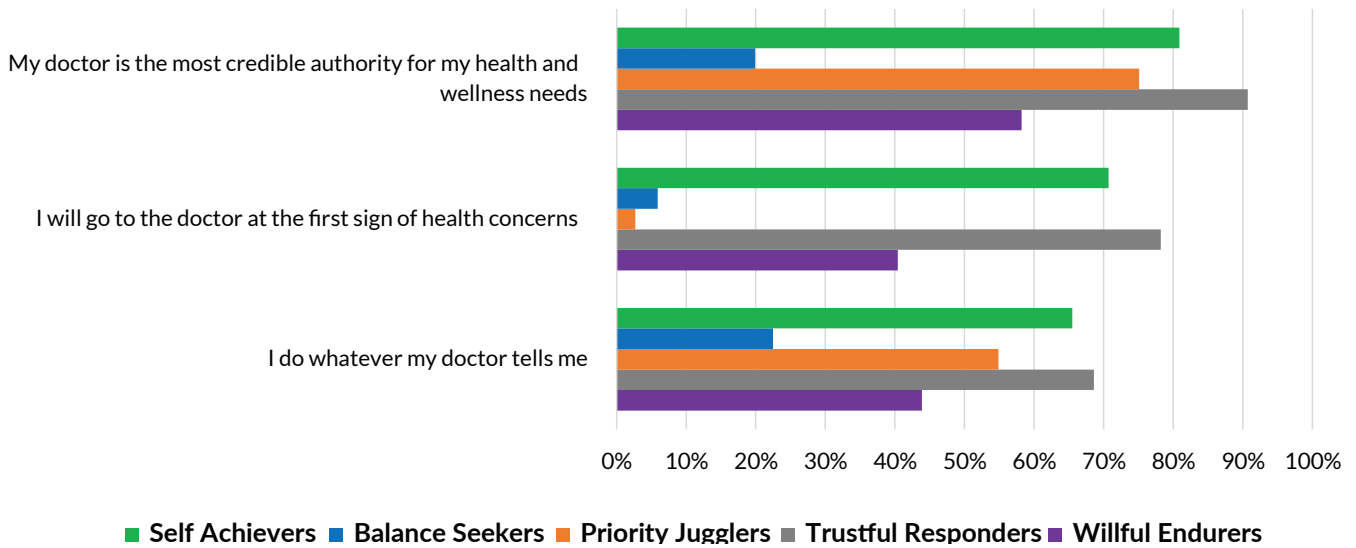
As described in **Figure 1** earlier in this paper, Willful Endurers tend to live in the "here and now" and want immediate services and gratification. They do not focus on the future, so they are the least likely group to pursue preventative care and wellness behaviors. They generally accept that they may get sick down the road, but that's a bridge they'll cross when they come to it; after all, to a Willful Endurer, 10 years is ten lifetimes away.

Consistent with this mindset, Willful Endurers do not like to wait to get the care they need now, once it's time to cross that bridge. Rather than schedule an appointment days or weeks out with their primary care physician, Willful Endurers are the most likely segment to visit the Emergency Room.

Figure 6 looks at the segment distribution among patients who visit the ER at least once every three months. Willful Endurers represent **77% of frequent ER visitors.**

Figure 6. Psychographic Segment Distribution Among Patients Visiting ER at Least Once Every 3 Months
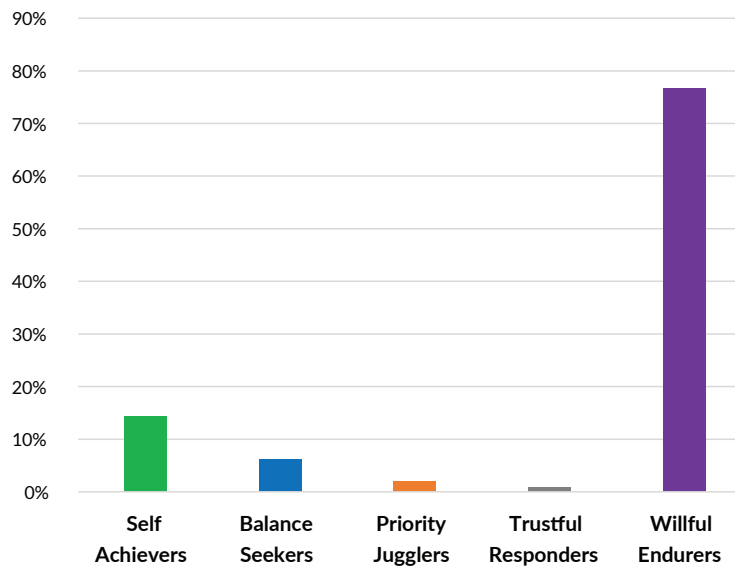
A national for-profit hospital system employs a significant number of nurses who make outbound calls to patients who were recently discharged from the ER to follow-up with an in-network physician (salaried and employed with the hospital system). This significant investment has only resulted in a low percentage (single digit) of patients converted to seeing an employed physician, though the annual value of such a patient is $1,500 and the investment pays out. However, this hospital system used Upfront's psychographic insights to improve these results.

Recognizing that Willful Endurers were the most probable target for this effort, the hospital system's call center nurses were trained in Willful Endurer-centric engagement. Call scripts were edited using Willful Endurer "language" (i.e., words and phrases that

resonate with this segment) and the nurses role played phone interactions and patient objection handling using these psychographic insights. After several months, primary care conversions increased +50%.

Since that effort, Upfront has developed digital, SMS/text message intervention for ER discharges, directing patients to primary care options. This same national hospital system tested Willful Endurer text messages versus a Control group of general, "one size fits all" text messaging, and the Willful Endurer version outperformed Control by 3X.

Urgent Care is also a preferred provider for Willful Endurers. As with ER's, more than two-thirds of frequent urgent care visitors – those who visit at least once every three months – are Willful Endurers **(Figure 7)**.

**Figure 7.** Segment Distribution Among Patients Visiting Urgent Care at Least Once Every 3 Months
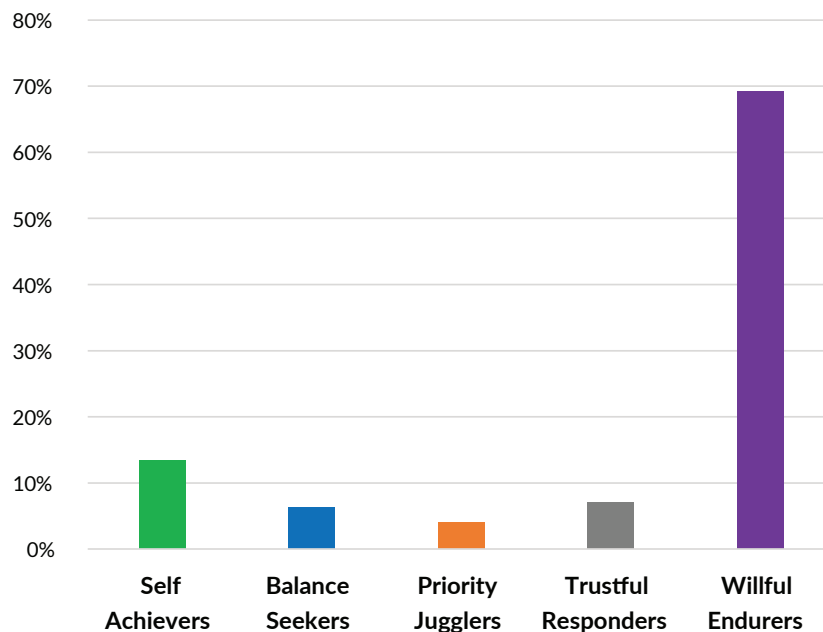
Another national nonprofit hospital system, also an Upfront client, operates more than 70 urgent care clinics across its service geography. The hospital system's centralized data analytics team looked at an exhaustive list of variables to identify the best predictors of clinic success (or lack thereof). One of the most predictive variables for success was a concentration of Willful Endurers within a five-mile radius of a clinic. The hospital system's Mergers & Acquisitions team now uses these data for urgent care site selection.

Separately, a network of primary care practices was losing patient traffic to urgent care. This client was trying to communicate "immediate availability" of its practices to combat urgent care's perceived access advantage via an email campaign to current patients. Upfront developed a Willful Endurer version of the client's email, because this group was the most likely to leave for urgent care. An A/B test was executed by the client with thousands of patients in each leg of the test, comparing a Willful Endurer version versus the client's existing email campaign. The Willful Endurer version achieved **_three times_** the number of appointments made with a network primary care physician.

Patients' ability to pursue appropriate care, or willingness to purchase additional services, can stem from their perception of their ability to pay for it. Figure 8 offers the segments' attitudes regarding finances and medical care. Willful Endurers are the most likely to believe that they face challenges paying for healthcare, followed by Balance Seekers.

Figure 8. **Attitudes Regarding Finances and Health (Strongly Agree/Agree)**

■ **Self Achievers** ■ **Balance Seekers** ■ **Priority Jugglers** ■ **Trustful Responders** ■ **Willful Endurers**
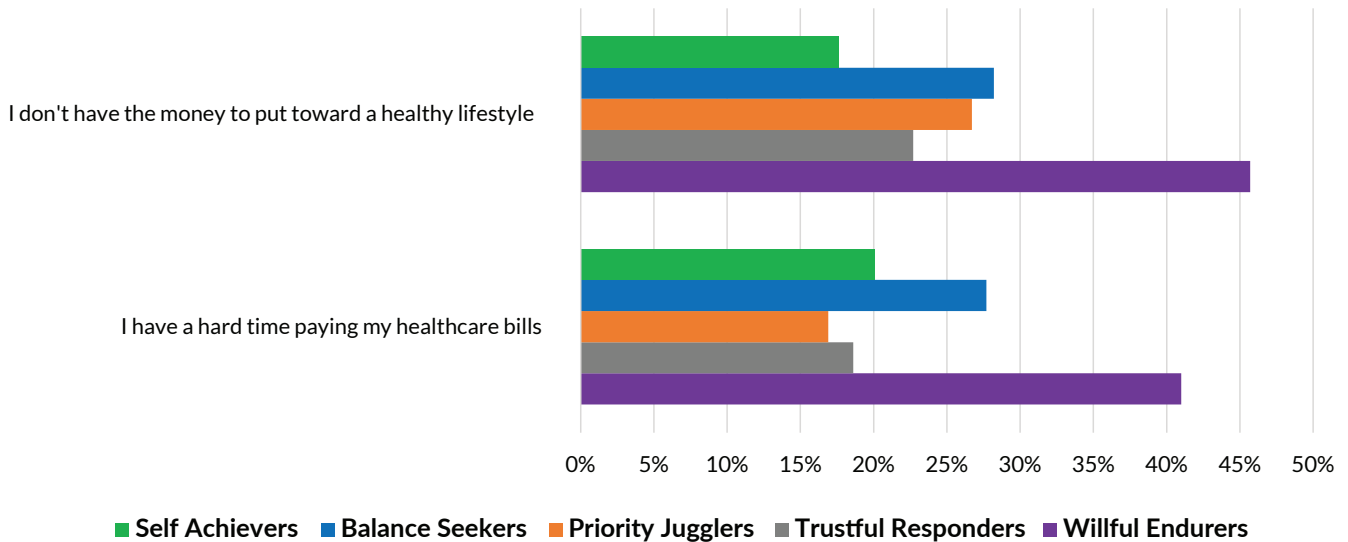
One might assume that Willful Endurers make less income than other segments; however, Willful Endurers in the study report an average annual income that is only $3,000 less than the General Population ($63,360 vs. $66,190, respectively).

Note, Willful Endurers (17%) and Balance Seekers (15%) are statistically the most likely (95% confidence) than other psychographic segments to indicate they do not currently have health insurance. Because Balance Seekers tend to lead a more wellness-oriented life, they may be less inclined to worry about paying health bills in the present.

Now that the profiles of the psychographic segments have been established, this paper will discuss the practical application of these insights in clinical and business opportunities.

OPERATIONALIZING PSYCHOGRAPHIC SEGMENTATION

One challenge for psychographic segmentation is that it has historically been difficult to scale across a population. While EMR's (Electronic Medical Records) and CRM (Customer Relationship Management) platforms exist with an abundance of demographic, health condition and behavioral data with which to segment and target subpopulations, psychographic data have not typically been kept in patient files. Operationalizing psychographic segmentation has been challenging – but this is changing.

As Alexandra Samuel wrote in her Harvard Business Review article⬚, "Psychographics Are Just as Important for Marketers as Demographics:"

"Until recently, however, it was a lot harder to get psychographics than demographics, and even if you had psychographic data, it wasn't always obvious how to make it actionable."

Operationalizing a psychographic model entails two components:

1. Identifying the consumer's segment

2. Employing an effective psychographic segment-specific engagement strategy

This paper addresses each of these components.

Identifying the healthcare consumer's segment

As mentioned earlier in this paper, Upfront has developed an algorithm informed by a 12-question survey, which identifies a consumer's psychographic segment with 91.1% accuracy. This survey can be administered in a variety of ways, depending on the client's needs. The following are just a few of the ways Upfront can administer the Classifier survey for its clients:

*   Completed on a tablet or mobile device at hospital discharge

*   Completed on a tablet or mobile device when checking into a medical practice

*   Accessing survey on a smartphone via a QR code displayed in a practice waiting room

*   Emailing a link to the survey to patients to be completed before or after an appointment

*   Texting a link to the survey to patients on their smartphone

*   Inviting patients to take the survey on the client's website or health portal

*   Accessing the survey through a personalized patient microsite provided by Upfront

The survey only takes about 90 seconds to complete.

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>
> *Alexandra Samuel*
> *Harvard Business Review*

Psychographics Are Just as Important for Marketers as Demographics

Harvard Business Review

A healthcare organization can have many thousands of patients and a health insurance company can have millions of members. It may not be feasible to get such large populations to answer the 12-question Classifier survey in a short period of time. Recognizing this challenge, Upfront collaborates with a National Data Compiler to "pre-segment" adults age 18+ across the U.S.

A National Data Compiler is a company that accesses many publicly available and third-party data sets to develop records for consumers. For example, companies that calculate consumers' credit scores are National Data Compilers, accessing purchase, loan and banking data from retail entities to determine a person's credit-worthiness.

Data scientists from the National Data Compiler partnered with Upfront data scientists to use Upfront's market research data and national third-party data to develop an algorithm that can statistically project Upfront's psychographic segment model across the U.S. population of adults age 18+.

Upfront can append a client's consumer database with these data, assigning a segment to each member of that database. Upfront can also identify the segment for individuals in a client's competitive service area, who are not currently in the client's database, for marketing and patient acquisition purposes.

This secure and HIPAA-compliant process may only take 5-7 business days, allowing large numbers of people to be "pre-segmented" in a short time period.

A statistical projection is not as accurate as having a patient complete the 12-question Classifier survey. While the Classifier is 91.1% accurate, predictability is much less with the statistical projection. However, with a five-segment model, one has a 20% chance of getting the right message to the right segment through guessing and random targeting (1/5). With this statistical projection, one is significantly more likely (up to 3X random chance) to get the right message to the right person to activate desired behaviors. Across a population, this increase in odds can pay big dividends.

Many of Upfront's clients will start with the statistically projected segments in their engagement efforts. When there is an opportunity to have the patient or member complete the Classifier survey (e.g., at hospital discharge, during health plan open enrollment, when checking into an urgent care center), if there is any difference between projected and actual segment, Upfront will recognize the actual segment and personalize engagement accordingly. The actual segment will also be captured in the client's EMR, CRM or practice management system.

Employing an effective psychographic segment-specific engagement strategy

Because each psychographic segment has different motivations, priorities and communication preferences, each requires a unique engagement strategy. What works for Willful Endurers will not be as effective with Self Achievers, Balance Seekers, Priority Jugglers and Trustful Responders.

Through their decades of research and practical application of psychographic insights, the healthcare consumer experts at Upfront have developed a "Play Book" for effective engagement with each of the five segments. Segment-specific key words and phrases, propositions, imagery, channel preferences and message frequency insights are used to personalize Upfront communications.
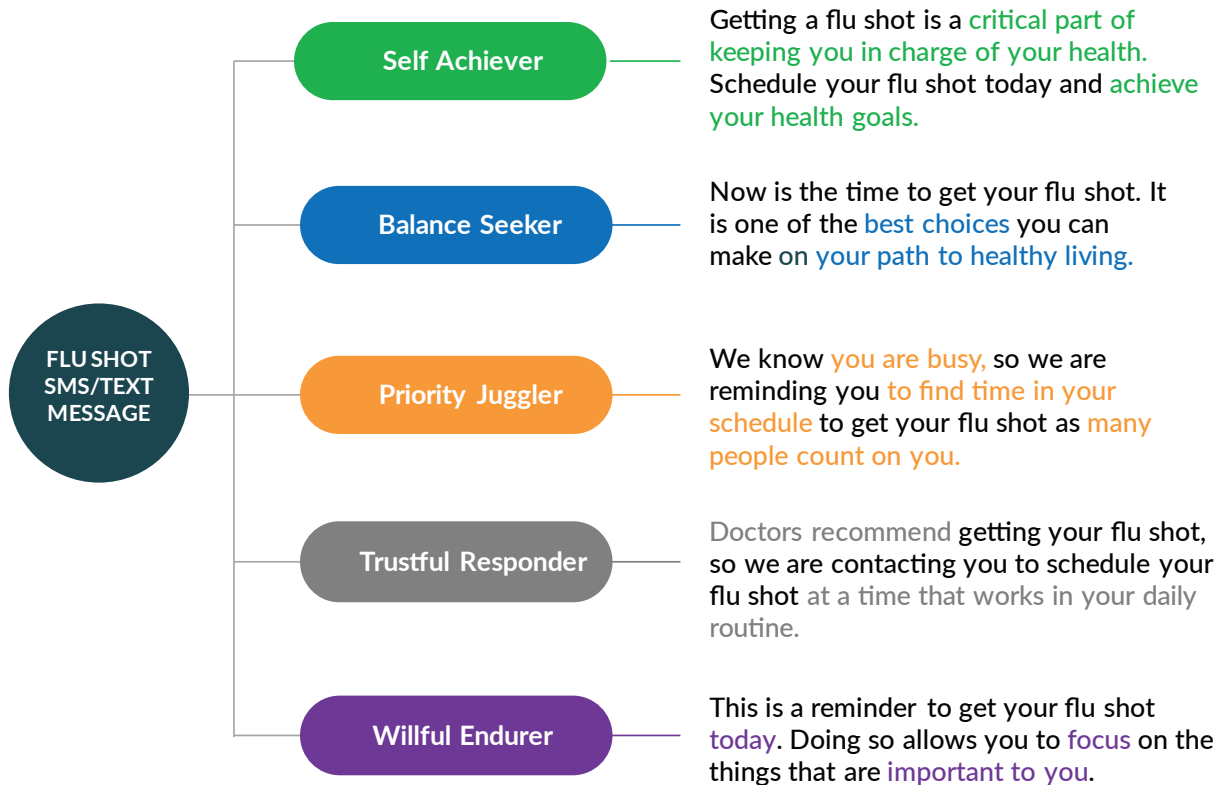
While a comprehensive overview of this proprietary information will not be provided in this paper (though are open to Upfront clients), examples will be used to demonstrate these segment differences. **Figure 9** provides a simple reference to the themes informing segment-specific messaging.

Using these segment themes as a guide, Upfront takes a client's desired message and develops five versions designed to resonate with each segment. **Figure 10** is an example of a flu shot reminder text message. While each version says, "Get your flu shot," the wording varies according to the segment's profile with the appropriate segment language.

Figure 9. Segment-Specific Message Themes

SELF ACHIEVERS : Achieve the Goal; Improvement

BALANCE SEEKERS: Choices & Options; Context; Knowledge

PRIORITY JUGGLERS: How the Family/Others Benefit; Commitment; Duty

TRUSTFUL RESPONDERS: Expert, Credentialed Physician Says So

WILLFUL ENDURERS: Live for Today; Immediate Benefit; Easy

Figure 10. Segment-Specific Messaging

FLU SHOT SMS/TEXT MESSAGE

Self Achiever

Getting a flu shot is a critical part of keeping you in charge of your health. Schedule your flu shot today and achieve your health goals.

Balance Seeker

Now is the time to get your flu shot. It is one of the best choices you can make on your path to healthy living.

Priority Juggler

We know you are busy, so we are reminding you to find time in your schedule to get your flu shot as many people count on you.

Trustful Responder

Doctors recommend getting your flu shot, so we are contacting you to schedule your flu shot at a time that works in your daily routine.

Willful Endurer

This is a reminder to get your flu shot today. Doing so allows you to focus on the things that are important to you.

To be clear, a single segment-specific email or text message is not sufficient to activate and sustain behavior change. Nor will the same channel mix be as effective across segments. It takes multiple engagements using the right frequency of patients' preferred channels to maximize the likelihood of behavior change.

In their previous careers at Procter & Gamble, the healthcare consumer experts at Upfront learned that is takes 4 to 6 touchpoints to trigger a desired behavior and 8 to 12 touchpoints to sustain that behavior (assuming the consumer's experience with a product or service met or exceeded expectations.

Self Achievers and Balance Seekers like to explore a lot of data and like emails with links to additional references and resources. Priority Jugglers need to get right to the point and appreciate how a well-worded text message, in under 160 characters, conveys the necessary information. Willful Endurers and Trustful Responders want the human touch and respond better to voice calls.
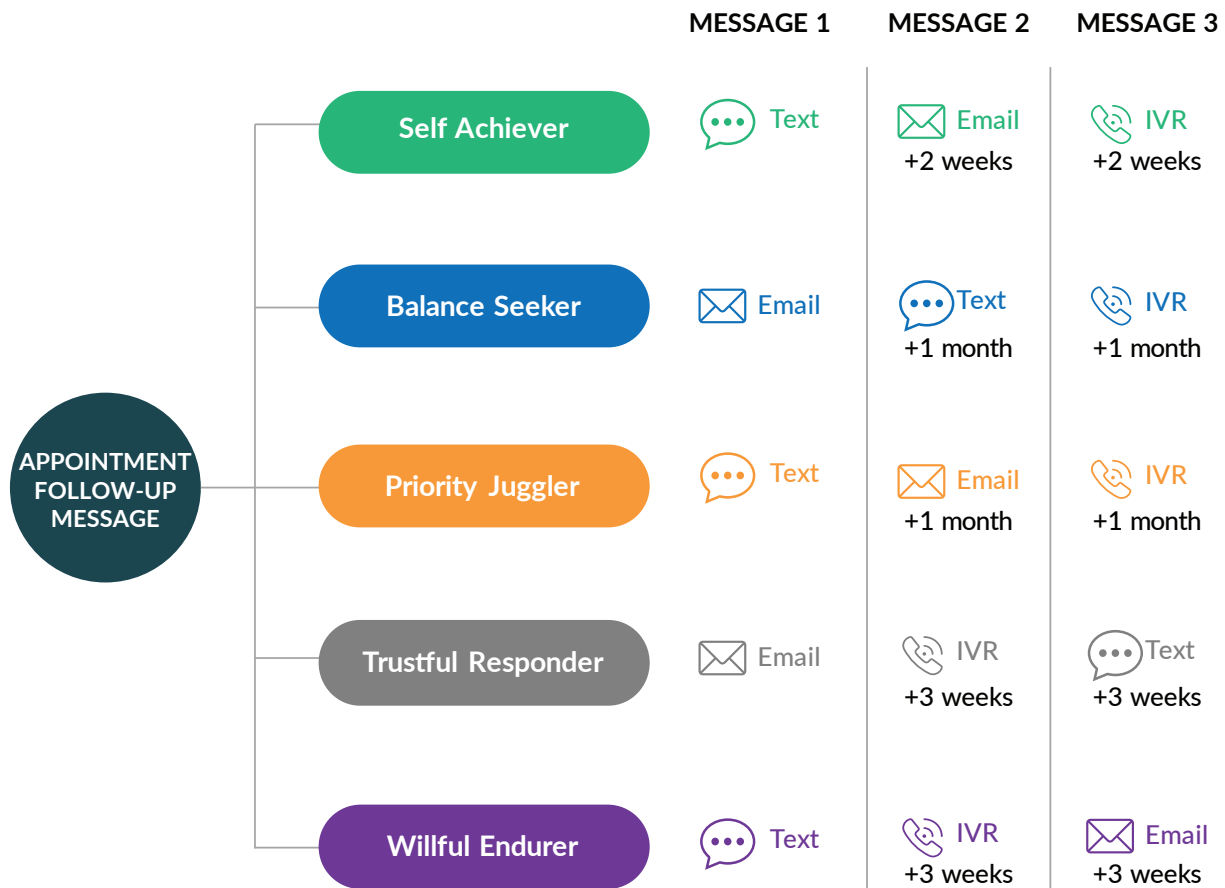
Figure 11 illustrates how the channel mix and frequency may vary by psychographic segment. Note, this is for illustration purposes only. The actual segment-specific channel mix varies by topic (e.g., health education, appointment reminders, provider marketing, etc.), and these workflows are proprietary to Upfront.

Important to remember is that patient engagement is a two-way street. Engagement is not about providing information to a patient and hoping it is sufficient.

Engagement requires an exchange of information, in which the patient provides feedback and asks questions while the provider listens and responds in kind.

Upfront communications include response mechanisms called "patient actions," in which the recipient of an Upfront communication answers simple questions or clicks a link to acknowledge comprehension of the content provided. Patients can also request a change in channel mix or a call from a nurse (if appropriate).

Figure 11. **Segment-Specific Channel Mix**

	MESSAGE 1	MESSAGE 2	MESSAGE 3
Self Achiever	Text	Email +2 weeks	IVR +2 weeks
Balance Seeker	Email	Text +1 month	IVR +1 month
Priority Juggler	Text	Email +1 month	IVR +1 month
Trustful Responder	Email	IVR +3 weeks	Text +3 weeks
Willful Endurer	Text	IVR +3 weeks	Email +3 weeks

APPOINTMENT FOLLOW-UP MESSAGE

CASE STUDIES

The following case studies provide examples of how psychographic segmentation integrated with digital workflows has amplified patient and member engagement to achieve significant clinical and business results.

CASE STUDY 1:
Reducing Hospital Readmissions for Congestive Heart Failure

Background:

A progressive health system, part of one of the largest nonprofit hospital networks in the United States, was achieving a 30-day readmission rate for Congestive Heart Failure (CHF) of 18.5%, ahead of the national average, which is above 20%. Its nurses followed up with all CHF patients after discharge to monitor their status and ensure they were taking the appropriate steps to facilitate recovery.

Despite intensive follow-up through phone calls and a relatively successful readmission rate, this health system wanted to improve its results. The health system wanted to see if psychographic segmentation could enhance patient engagement and satisfaction, and whether Upfront's digital engagement capabilities could drive efficiencies in their efforts.

Approach:

The health system participated in a five-month pilot with 315 CHF patients discharged during this time period. CHF patients answered Upfront's 12-question Psychographic Classifier survey before hospital discharge. Digital communications were sent over the course of 30 days post-discharge with education supporting recovery (**Figure 12**). Each communication was personalized with psychographic insights and included a patient response mechanism (e.g., short survey) to gauge recovery.

If a patient answered these surveys in a way that flagged them as a readmission risk (e.g., gained 2 pounds in a day or 5 pounds in a week, indicating fluid retention), call center nurses would receive text and email alerts, as well as a "red light" warning on Upfront's dashboard. Patients who responded with no issues appeared as a "green light" on the dashboard.
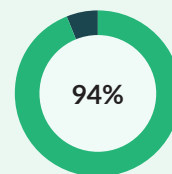
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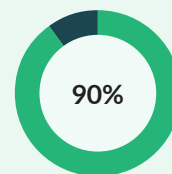
90% 90 percent reduction in 30 days all-cause readmissions (from 18.5% to <2%)
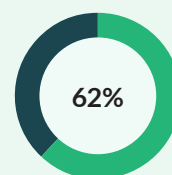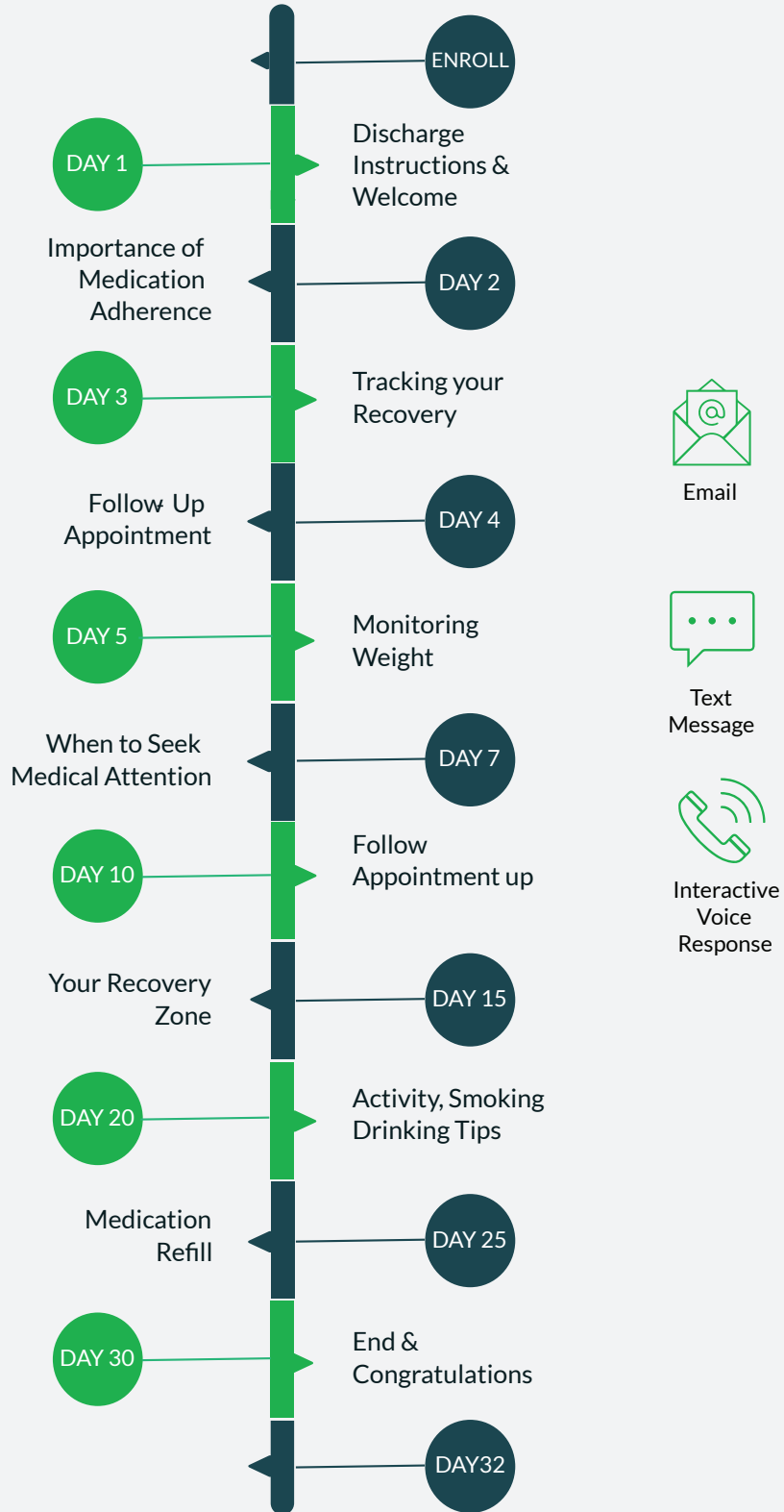
62% 62 percent patient response rate to all waves of digital communications

94% 94 percent of patients (age 65+) liked the digital communications

Figure 12. CHF Post-Discharge Engagement Workflow

ENROLL

DAY 1 — Discharge Instructions & Welcome

Importance of Medication Adherence — DAY 2

DAY 3 — Tracking your Recovery

Follow Up Appointment — DAY 4

DAY 5 — Monitoring Weight

When to Seek Medical Attention — DAY 7

DAY 10 — Follow Appointment up

Your Recovery Zone — DAY 15

DAY 20 — Activity, Smoking Drinking Tips

Medication Refill — DAY 25

DAY 30 — End & Congratulations

DAY32

Email

Text Message

Interactive Voice Response

CASE STUDY 2:
Boosting Patient Loyalty

Background:

Midwest Express Clinic offers family care, injury care and a variety of other services at multiple suburban locations in Illinois and Indiana. Midwest Express Clinic felt that its patient loyalty growth rate had plateaued and that it could be improved. Its staff was spending 2-3 hours per day calling patients to remind them about appointments, which was a resource-intensive process. In addition, patients had no way to share direct feedback with each clinic in the network, so there was a significant opportunity to identify location-specific issues and enhance the patient experience.

Approach:

Upfront executed various application, sending an average of 10,000 messages per month via text/SMS, email and Interactive Voice Response (IVR), focusing on:

- Appointment reminders
- Follow-up messages after clinic visits
- Patient Surveys
- On-demand messaging

The patient surveys would help identify ways to improve the patient experience at each Midwest Express Clinic location, and it would also provide the opportunity to share excellent reviews on social media, which Upfront could facilitate with its Reputation Management workflows.
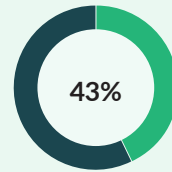
Figure 13. Average Social Media Star Ratings Across All Clinics
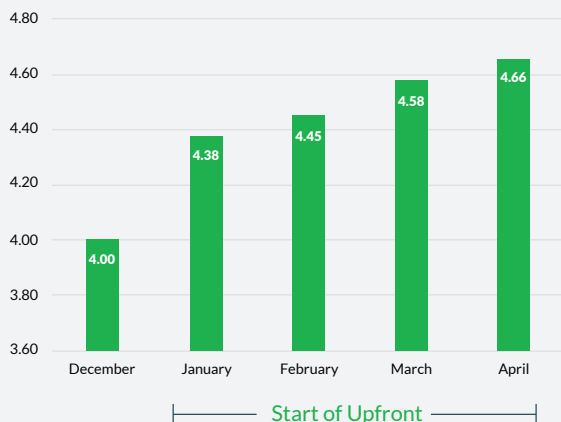
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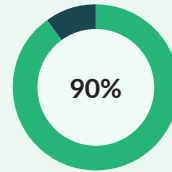
90% — 90 percent annual growth rate in patient loyalty/retention

43% — 43 percent improvement in appointment show rates

Increased average social media ratings from 4.0 to 4.7 stars (**Figure 13**)

Saved approximately $75,000 in annual operating expense (2-3 hours/day/clinic in phone follow-up). Additionally, this reduced staff turnover as they felt empowered to address patient experience improvements rather than chasing nonresponsive patients via phone calls.

This has helped our operations/processes on many parts of our business, and overall has been one of the best tools implemented and we saw immediate improvement... we've seen our monthly cost recaptured, not just in labor savings, but in building a loyal patient base that is more engaged.

Owner, Midwest Express Clinic

CASE STUDY 3:
Maximizing Patient Payment Collections

Background:

Priority Care (name blinded by client request), a chain of clinics in three states (Arizona, North Carolina and Texes), had a backlog of past due patient invoices. In one state alone, Priority Care was faced with $197,151 in patient payments due. Priority Care invested significant staff resources for making follow-up calls and mailing printed reminders to recover patient payments at a rate of only 5%. Additionally, collectiosn agencies charge service fees between 25 – 30% of revenue recovered, representing a substantial opportunity cost.

Approach:

UUpfront sent automated payment reminders via text message/SMS, email and IVR that prompted patients to pay their bills. These simple yet effective reminders promoted payments by following the sequence:

- 1 – 29 days: "Statement due"
- 30 – 59 days: "Balance due"
- 60 – 89 days "Second reminder"
- 90+ days: "Pay now to avoid a collections agency"

Priority Care started with just one of its three service geographies to evaluate Upfront's capabilities.

Results:

In just one week and one service geography, Priority Care experienced:

4X increase in collections

$75,000 annualized savings in statement printing and postage using digital payment reminders

A Return on Investment of **20 to 1**

Other Upfront clients using automated, digital reminders are experiencing similar results:

Going with Upfront was one of the best decisions our company could have made. No more wasted paper and postage, quicker patient reaction time to balances and ease of payments for patients have made for higher incoming revenue.

Medical Billing Supervisor

SUMMARY

Psychographic segmentation has been used for decades by the world's most successful consumer products and retail companies to influence decisions, behaviors and user experience. However, psychographic segmentation is relatively new to healthcare and represents a way for consumer science to augment and support the delivery of care, as well as help healthcare providers achieve their business goals.

Healthcare has historically taken a "one size fits all" approach to patient engagement, using the same message and channel mix with every person who shares, or seeks to prevent, a given health condition. Patients are people first, who happen to have a health issue but do not define themselves solely by that issue. They have distinct personalities and motivations, which influences their choices and behaviors.

Psychographic segmentation helps classify people according to their motivations and communication preferences to optimize targeting, messaging and the engagement experience. Psychographic insights can inform and enhance both digital and personal engagement, and Upfront has demonstrated that psychographic segmentation and messaging can be operationalized for unmatched clinical and business results.

Upfront has leveraged its psychographic segmentation model and digital workflows across a variety of use cases for hospitals & health systems, medical groups, urgent care clinics, health insurance companies and life sciences. For more information, please contact us at info@upfronthealthcare.com to discuss how we can help you achieve your goals using psychographics and digital engagement.

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