

MSI Webinar: Why Consumers Value 'Cures' More but Want to Pay Less.

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Speaker:

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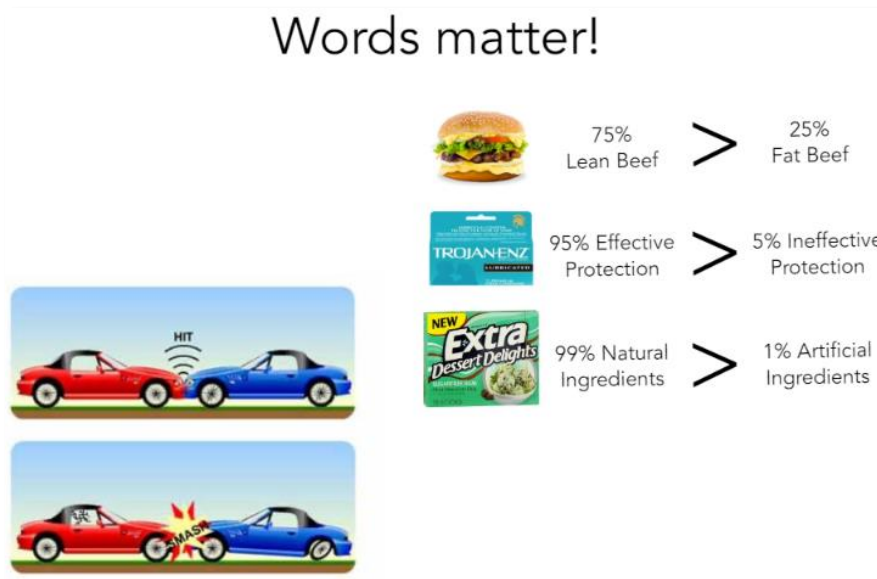
Overview:

The fundamental premise of value-based pricing suggests that consumers are generally willing to pay more for products or services that offer greater value. However, in this MSI webinar, speaker Mathew S. Isaac examines research that suggests the opposite is true, in healthcare. Isaac discusses the phenomenon he calls "**the cure effect**" which describes **the tendency for people to expect or prefer lower prices for health treatments claiming to completely eradicate disease symptoms rather than merely alleviating them.** Isaac points to numerous high-profile news stories illustrating growing public discontent with exorbitant pharmaceutical pricing, resulting in governmental intervention, public outcry, legal actions, and even incarceration (e.g., the case of "Pharma Bro"). One such case involved a lawsuit against Gilead Sciences Inc. over the pricing of their next-generation hepatitis C drug, priced at \$84,000. These incidents prompted Isaac to pose a research question: "Do individuals exhibit different price preferences and price fairness expectations for health treatments that claim to be cures (vs. non-cures)?"

Takeaways:

Differences between Cure vs. Non-Cures

- **Cures** may be defined as **restoration to good health** and include medications that eliminate disease symptoms offering non-temporary and complete restoration of good health (maximal efficacy).
- **Non-cures** may be defined as **abatement of the signs and symptoms** of a disease, such as medications that reduce disease symptoms, providing an improvement in health but may not completely eliminate the disease.
- Though the FDA has oversight over claims health companies can make, they do not have strict guidelines regarding the usage of subjective descriptors, leading to **consumer confusion** in terms of **inconsistent language when labeling medication.**
 - **Words matter:** Subtle changes in the way words or attributes are framed can effect judgments and decisions (attribute framing effect).



Predictions for price expectations (cures vs. non-cures)

- Proponents of value-based pricing argue that **a drug's price "should be based on the magnitude of its benefits."**
- **Value-based pricing** is generally perceived as **fair**, creating an expectation that consumers may be more tolerant of higher priced cures because they are higher in effectiveness.

Another prediction might be that a treatment's efficacy has no effect on price expectations.

- The **sacred-value-protection model** claims that there are certain contexts where value pricing will not hold and may even be considered offensive.
- Attempting to attribute **monetary worth to these sacred values constitutes a taboo** tradeoff (e.g., the concept of fate in religion), which individuals find disturbing and even distressing (e.g. health is a sacred value).
 - In this case communal sharing norms, such as ensuring equal access, may be more important than matching the efficacy of a health therapy with a price.

The Cure Effect

- Past research has looked at whether communal norms apply in certain industries more than others (e.g., pharmaceuticals vs. software).
- Communal value will play an even more important role in healthcare and considering the higher communal value (rather than market value) of cures versus non-cures (e.g. cures offer more certainty).
 - As a result, the cure effect suggests that **individuals will advocate for lower prices that allow cures to be more universally accessed.**

The Research

Hypotheses

- **H1:** Individuals are more likely to demand universal access for health treatments that are perceived to be cures (vs. non-cures).
- **H2 [The Cure Effect]:** As a result, price judgments for cures (vs. non-cures) will violate the expectations of value-based pricing.
 - **H2A:** Individuals are more likely to prefer low prices for health treatments that are perceived to be cures (vs. non-cures).
 - **H2B:** Individuals are more likely to consider high prices unfair if health treatments are perceived to be cures (vs. non-cures).

- **Method:** Five studies involving over 2,500 participants offer strong evidence supporting *the cure effect*. These studies demonstrate that the phenomenon arises from individuals primarily evaluating the acceptable price of a health treatment based on its communal value rather than its market value.

Study 1: 200 American participants (mean age = 40.01 years, SD = 11.93, 61.5% female) recruited using an online panel (Cloud Research).

- **Stimuli:** Participants were shown brief one-sentence descriptions for 10 different medications approved by the FDA for a genetic disease (e.g., Disease XYZ, which affects 0.2% of the population, seriously compromises kidney function by introducing a pathogen into the renal system).
 - Participants then encountered ten different medication descriptions, five depicting a cure and five depicting a non-cure, presented in random order (e.g., cure: This medication eliminates the pathogen that causes Disease XYZ. vs. Non-cure: This medication weakens the pathogen that causes Disease XYZ.)
 - After reading the one-sentence description of each medication, participants were asked to answer the **same two questions concerning the access to and affordability of the specific medication.**

Demand for Universal Access (presented after each medication):

- To what extent do you agree that society must ensure that this medication is made available immediately to patients suffering from Disease XYZ, including those unable to pay for the therapy? [1 = Strongly disagree, 10 = Strongly agree]

Preference for a Low-Price Level (presented after each medication):

- To what extent do you agree that the price of this medication should be set at a level that is affordable to all patients suffering from Disease XYZ? [1 = Strongly disagree, 10 = Strongly agree]

- **Results for study 1:** Overall, respondents ranked cure-based descriptions higher than non-cure, in both demand for universal access and low price preference, showing a demand for universal access and lower pricing for cure-based medications.

Study	N	Sample	H1: Demand for universal access		H2A: Low price preference	
			<u>Cure</u>	<u>Non-cure</u>	<u>Cure</u>	<u>Non-cure</u>
Study 1	200	Cloud Research	8.42 (2.18)	7.24 (2.34)	8.71 (1.98)	7.84 (2.40)

- **Study 2:** 404 American participants (mean age = 43.04 years, SD = 13.95, 58.7% female) recruited using an online panel (Cloud Research).
 - **Stimuli:** Participants were assigned a cure condition or a non-cure condition where they learned a medication either cured or treated (non-cure) a serious illness.
 - **Measurements** taken focused on **price fairness** (e.g., Is it FAIR, APPROPRIATE, and ETHICAL for the biotechnology company to charge a price for the CURE [TREATMENT] that will be too high for some patients to pay?) or a demand for **universal access** (e.g., To what extent do you agree with each of the following statements?).

Study 2 Stimuli

Cure Condition:

- Suppose that a biotechnology company has created an innovative drug that CURES a serious and life-threatening (but non-contagious) illness. This new drug completely eliminates the pathogen that causes the illness. Clinical trials show that it is very effective. The biotechnology company plans to charge patients for the cure. Assume patients would pay for the drug out-of-the-pocket (i.e., not through insurance). Some patients won't be able to afford the drug at the proposed price and will therefore NOT be cured.

Non-Cure Condition:

- Suppose that a biotechnology company has created an innovative drug that TREATS a serious and life-threatening (but non-contagious) illness. This new drug considerably weakens the pathogen that causes the illness. Clinical trials show that it is very effective. The biotechnology company plans to charge patients for the treatment. Assume patients would pay for the drug out-of-the-pocket (i.e., not through insurance). Some patients won't be able to afford the drug at the proposed price and will therefore NOT be treated.

- **Results for study 2:** Overall, results favored the demand for universal access to medication for the cure condition.
 - Additionally, the mediation analysis found demand for universal access could explain the results for fairness in high price.

Study	N	Sample	H1: Demand for universal access		H2A: Low price preference		H2B: Fairness of high price	
			<u>Cure</u>	<u>Non-cure</u>	<u>Cure</u>	<u>Non-cure</u>	<u>Cure</u>	<u>Non-cure</u>
Study 2	404	Cloud Research	8.24 (2.23)	7.73 (2.47)			3.31 (2.57)	3.91 (2.60)

- **Study 3:** 639 American participants (mean age = 40.76 years, SD = 13.19, 56.5% female) recruited using an online panel (Cloud Research).
 - **Stimuli:** All participants were informed that “a new therapy prevents mutations that cause 90% of a specific type of cancer.”

- Participants in the **non-cure condition received no additional information** vs. those randomly assigned to the **cure condition learned that the Center for Disease Control endorsed labeling the therapy as a cure for cancer** on account of its effectiveness.

Study 3 Stimuli

Cure Condition:

- Suppose a new therapy prevents mutations that cause 90% of a specific type of cancer. Because of its effectiveness, the Center for Disease Control endorses labeling this therapy as a “CURE” for cancer.

Non-Cure Condition:

- Suppose a new therapy prevents mutations that cause 90% of a specific type of cancer.

- **Preferred Price levels:** Participants were informed that the company that developed the therapy was considering **two possible price points:** 15% above its gross profit margin, or 25% above its gross profit margin.
 - **When introducing these price points, a tradeoff was highlighted** between the two options: **Lower prices would compromise** the company’s future R&D pipeline and potentially reduce shareholder value vs. **higher prices would be prohibitive** to low-income patients and limit access to the therapy.
 - **Participants then selected the price that they would endorse** (either 15% or 25% above the company’s gross margin).
- **Demand for universal access:** Participants were then asked: To what extent do you agree with the following statements about the pricing of cures (therapies)? [1 = Strongly Disagree, 10 = Strongly Agree]
 - Companies must implement prices that allow as many people as possible to access their cures (therapies).
 - Companies must help solve societal problems by making their cures (therapies) universally accessible.
- **Results from study 3:** Results indicated that respondents favored universal access to medications that cure a disease. Additionally, they favored a preference for a lower price when it came to a cure.

Study	N	Sample	H1: Demand for universal access		H2A: Low price preference		H2B: Fairness of high price	
			Cure	Non-cure	Cure	Non-cure	Cure	Non-cure
Study 3	639	Cloud Research	6.07 (1.20)	5.82 (1.31)	89.4%	83.0%		

- **Study 4:** Participants from study 4 were from a UG Student Pool. 4 were 518 undergraduate students at a large American university (mean age = 20.35 years, SD = .90, 61.6% female).
- This study examined whether individuals will advocate for non-value-based prices even when they have not been prompted to consider economic inequality.
- Additionally, study 4 also aimed to assess whether individuals' readiness to endorse a non-value-based price is in fact **magnified for cures** (i.e., health treatments perceived to eliminate disease symptoms) or if it applies when any **treatment is introduced that is superior to an existing one.**
 - **Stimuli:** Study 4 had a cure condition and a non-cure condition. A baseline considered that the current drug cost patients \$500 out of pocket, was either 95% effective against the disease (cure condition) or 50% effective (non-cure condition).
 - Additionally, **participants in the cure condition** were to consider a new **drug which was 100% effective** that was just approved by the FDA. They were asked hypothetically, as part of a governmental drug price oversight committee, to **make a recommendation about the maximum price** that patients can be charged for this new drug.
 - In the **non-cure condition participant were to consider a new drug, which was 55%% effective**, that was just approved by the FDA. They were asked hypothetically, as part of a governmental drug price oversight committee, to **make a recommendation about the maximum price** that patients can be charged for this new drug.

Study 4 Stimuli

Cure Condition:

- Consider a genetic disease, Disease XYZ, that seriously compromises kidney function by introducing a pathogen into the renal system. Until now, the best treatment for Disease XYZ was a drug that is 95% effective against the disease. This treatment costs patients \$500 out of pocket.
- Suppose a new drug has just been approved by the FDA that is 100% effective against Disease XYZ. As part of a governmental drug price oversight committee, you need to make a recommendation about the maximum price that patients can be charged for this new drug.

Non-Cure Condition:

- Consider a genetic disease, Disease XYZ, that seriously compromises kidney function by introducing a pathogen into the renal system. Until now, the best treatment for Disease XYZ was a drug that is 50% effective against the disease. This treatment costs patients \$500 out of pocket.
- Suppose a new drug has just been approved by the FDA that is 55% effective against Disease XYZ. As part of a governmental drug price oversight committee, you need to make a recommendation about the maximum price that patients can be charged for this new drug.

Preferred Price Level:

- Select a maximum price that consumers should pay, from \$0 to \$1000 for the drug that is 100% [55%] effective against Disease XYZ.
- Key dependent variable: % of participants who selected a non-value-based price (i.e., a price LESS than \$500)

Demand for Universal Access:

- To what extent do you believe that the 100% [55%] effective drug ought to be MORE accessible financially to patients suffering from Disease XYZ than the 95% [50%] effective drug? [1 = strongly disagree, 10 = strongly agree]

- **Results for study 4:** The UG student pool found that **both** demand for universal access and for low price was highest.

Study	N	Sample	H1: Demand for universal access		H2A: Low price preference		H2B: Fairness of high price	
			Cure	Non-cure	Cure	Non-cure	Cure	Non-cure
Study 4	518	UG Student Pool	7.66 (2.58)	7.14 (2.24)	43.5%	34.1%		

- **Study 5:** 802 American participants (mean age = 42.59 years, SD = 13.73, 56.6% female) recruited using an online panel (Cloud Research).
- The study explicitly manipulated whether or not participants received an economic inequality cue that both drugs were not covered by insurance plans so that patients with limited disposal income would not be able to afford the drugs.
 - **Results for study 5:** Study 5 supports the notion that the cure effect increases when economic inequality is salient.
- Individuals prefer lower prices for cures (vs. non-cures), considering high prices to be unfair. This is more pronounced when economic inequality cues are more prominent.
- The cure effect contradicts the main tenant of value-based pricing.
- This study suggests that people's assessments of prices are influenced more by the greater societal worth (communal value) of cures compared to non-cures, rather than simply their superior market value.
- Individuals advocate for the universal accessibility of cures, leading them to demand that drug companies price these treatments at a level that is affordable for all.

Source:

The cure effect: Individuals demand universal access for health treatments that claim to eliminate disease symptoms.

Source: Isaac, M.S. (2023). MSI Working Paper. [MSI](#).

The cure effect: Individuals demand universal access for health treatments that claim to eliminate disease symptoms

Source: Isaac, M. S. (2023). [Journal of Experimental Psychology: Applied](#), 29(3), 544–556.