MEDORION

Side Effects:
## Irreconcilable differences or is there still hope?

Why health plan managers need to understand the barriers behind medication adherence before they can effectively address them.

Two patients are sitting in the waiting room of their doctor's office: Diane is a lively 63-year-old woman in good overall health. Diane generally prefers to avoid the health system unless she absolutely needs to. She is managing one chronic condition for which her physician prescribed a medication that she promptly filled and stopped after just ten days.

Why? She was not experiencing these symtpoms before starting the medication, and since she was feeling much better, she decided there is no need to take the medication any longer. This perceived lack of medication feedback segments Diane as the 'Feel Fine' member.

Sitting across from her is Jake, who just turned 67. Jake is managing two chronic conditions; he filled the doctor's prescription and shortly after, he began experiencing side effects that disrupted his workdays. Jake was reluctant to call his physician and did not want to confront the issue about his medication and side effects. Furthermore, he was not aware of alternative treatments that were available to him. Instead, he ceased taking the medication, increasing the risk of complications from his underlying conditions in the future. Jake's decision is triggered by side effects. Studies show that the 'side effect' factor is **the most critical determinant of medication adherence among members between 60-75 years of age with an annual income over $60K.**

> On average, at least 25% of a given member population does not adhere to medication because of side effects. Which of these are your members?
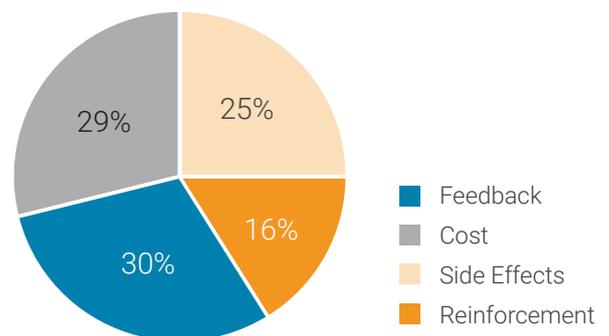
The chart displays is Medorion's Behavioral AI analysis of the top four barriers to medication adherence and their respective share for Diabetes Medication (D10), Adherence for Cholesterol (Statins) (D12) and Hypertension (RAS antagonists)

The above chart illustrates how the **similar patient profiles are motivated by very different human factors, and require different persuasion strategies.** By understanding what is triggering non-adherence, we can help Diane and Jake, and support the physician's efforts to keep their health on track.

How does Medorion mediate the behavior?

Let's walk through the different communication strategies required to increase medication adherence in these two respective cases. In the first round of data analysis, the Behavioral AI engine sifts through thousands of clinical and demographic factors (chronic conditions, doctor visitations, income, and age are elementary – we dig deeper) and translates billions of data points into a rich canvas of behavioral patterns to reveal what motivates people's decisions and why.

In the second round, Medorion experts segment the data and provide insights on what theory explains the highlighted behavior. The engine then identifies the four or five most significant and diverse predictors and conducts a randomized experiment, pulling out a sample of the population and sending each member each one of the messages.

Using sophisticated technology seen on e-commerce platforms, Medorion measures a person's interaction with various communication channels, helping to improve behavior predictions. The engine constantly checks the assumptions that underline the data, helping to improve the prediction model continuously and in turn, empowering health plans to learn insights about their population that are applicable to other members, too. **This, in essence, is the Medorion constellation.**

In this case, we know that some members will be more like Diane, while others will identify with Jake. Health plan markerters would then send a message that targets the lack of medication feedback experienced by Diane and other members, and attempt to influence her decision to take the medication:

> *"Even though you may feel fine, it is important to keep taking the medication prescribed by your doctor to treat your condition and ensure your health in the long-term. Consult your doctor to understand how the medication works; they can help adjust the treatment program if needed."*

In contrast, members like Jake command a different approach. In his mind is a belief: "My doctor gave me a prescription but I felt awful with the medication. I don't want to confront her about this and find out what other medications I could take."

"The simple answer is that while we cannot change people, we can help them to understand that they always have an option."

The idea of having the day hijacked by side effects, or feeling too uncomfortable to call the doctor with 'unimportant issues' is a real struggle. While his decision to stop taking the medication is not a rational one since it is motivated by fear and anxiety, we can help Jake by acknowledging his experience with side effects, and encouraging him to share this experience with his doctor in order to find a better treatment option:

> *"Side effect worries are common, especially when taking a new medication. Speak with your doctor if you are experiencing any discomfort with your current medication. Whether you need to change the medication or dosage plan, there are alternatives available to you."*

What does this teach us?

Health behavior is an inside job that starts with an awareness, not just on the patient's part but the outside world too, constantly sending messages, trying to convince people to perform desired actions. The slightest nuance can either repel or motivate.

The obvious answer is that we are complex beings. The simple answer is that while we cannot change people, we can help them to understand that they always have an option.

We know what works because we build our Behavioral AI engine by applying knowledge and human behavioral insight to develop the most powerful algorithms that motivate awareness when and where you need it most.

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