

Case Study:

Aetna, in efforts of lowering costs of the payout payments, launched Aetna Innovation Labs to help prevent ineffective diagnosis that lead to more injurious health issues. Aetna aimed to bring big data to doctors to aid them in making a more informed decision. For patients, they would be able to give them specific stats about how at risk they are at and what actions they should take quickly to lower that risk. For instance, “a doctor might say, ‘Here’s a statin and lose five pounds around your middle and you will be 50 percent less likely to have a heart attack in the next decade...’” and this would explain to the patient the gravity of the situation. They wanted to specifically apply this use of big data in the users of their insurance. It would be beneficial on both sides because patients would be able to prevent dangerous health conditions and Aetna would reduce its payouts.

They intended to gather information by having two annual screenings at the beginning of consecutive years and simultaneously scanning through 600,000 lab results and cross referencing them with 18 million claims in a one-year period. The application of the data would be pulling the patient’s data from the primary care physician, other specialists and finding the overlap in the data held by Aetna. Based on this a treatment plan would be recommended and Aetna would pre-authorize the payment. The results within a vacuum have been successful thus far. There are a few pitfalls such as the patient changing insurance and then they haven’t accounted for the uninsured.

Critique:

One of the pitfalls I imagine this project to have is the sharing of data laws. Medical data is tricky to begin with and sharing within insurances or making this more widespread would require change of law or some loophole. It also requires client engagement. If the doctor decides that the data is bogus and their diagnosis is correct, what then? There is also confounding variables that haven’t been accounted for in medicine. For instance, most of the medical data/standards is based of the testing on Caucasian males and isn’t inclusive of other people of color or women. The data that Aetna has would be up against these standards and there is a massive bias. In addition, the collection of this amount of data would raise a bunch of objections based on the fact that this amount of data is intrusive.

Source:

<https://gigaom.com/2012/11/20/how-aetna-is-using-big-data-to-improve-patient-health/>

Diagrams:

N/A