The Opioid Tracking System

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THE PROBLEM
In the US each year there are 153.3 million opioid prescriptions given out, which lead to 50,000 opioid deaths each year. This has turned into an epidemic which is only getting worse with time.

Three Waves of the Rise in Opioid Overdose Deaths

As shown in the graph above, deaths caused by opioids have exceeded heroin deaths. Currently, doctors are not required to follow stringent prescribing practices causing lax prescribing practices to occur. Additionally, the patient receives their prescription without understanding what the opioid prescription management process entails. As a team, the aim is to address the gap in opioid prescribing practices within healthcare settings. Overall, the impact of our system aims to increase trust and regulation in opioid prescribing practices with the ultimate desire of managing pain in a more controlled and educated manner.

WHY NOW?
The overprescribing opioids for monetary gain is also a concern. Some doctors have made between $25,000 and $100,000 just prescribing opioids due to an agreement with pharmaceutical companies for prescribing their medication. This is now being countered with state lawsuits and federal attention. Just this past month, the Supreme Court started reviewing a case of opioid mis-prescribing under the Controlled Substance Act. The doctors involved are potentially looking at decades in prison. This case is causing pressure for doctors to be held accountable for prescribing choices or otherwise risk their livelihoods, making this the perfect opportunity to present a solution seeking to provide regulatory help.

OUR GOAL
1. Eliminate the risk of overprescribing or uninformed prescribing by providing dynamic access to CDC
2. Lessen opioid misuse due to patient ignorance by providing dynamic access to CDC
3. Provide regulation capabilities to healthcare systems to prevent lax prescribing for monetary reasons

THE SYSTEM OUTLINE

THE SOLUTION
The team created a prescription database featuring an interactive opioid dosage calculator which analyzes the risk of a planned prescription and provides recommendations on how to proceed. The goal of the prescription database is to equip doctors with dynamic access to CDC opioid safety information that will allow for on the go assessment of chronic and acute opioid prescriptions by evaluating a prescription based on patient risk factors, dose and opioid, and condition type.

View our prototype at https://opioidtrackingsystem.wixsite.com/opioidtracking

THE IMPACT
With an issue that affects all parties in the healthcare system, addressing opioid misuse means taking into account the role of both the patient and the prescriber in the pharmaceutical supply chain. By providing doctors with an interactive risk analysis tool, greater visibility can be given to how opioids are being prescribed. This will ultimately foster safer prescribing practices that are based on CDC guidelines and patient safety information. Going forward the team will be networking with Safety Net Hospitals to proof the concept and applying for government certification through ONC Health IT Certification Program.

THE BUSINESS MODEL
The team is seeking $327,000 to hire consultants, software developers, and human factors engineers. While covering server access, software, and maintenance costs. The Opioid Tracking System will charge healthcare centers an implementation fee of $20,000 with a monthly subscription plan starting at $100/prescriber, which is flexible depending on the healthcare’s ability to pay. This prescriber-based subscription model allows healthcare centers to monitor and protect every prescriber to make sure the system is being used responsibly and ethically. With this subscription, doctors can access servers anywhere in the clinic using their personal pin. Through connections at Stevens, the team already positioned to work with the 12 public hospitals in NJ (who provide care regardless of the patient’s ability to pay). In the first year the system is projected to net $1.1 million dollars in revenue with a profit margin of 76%. Using these relationships to expand to the 24 public hospitals in New York, in three years the expected total net revenue of $4.1 million.

References

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