Needs Identification and Problem Statement

Project Deliverable B

GNG1103
Team 13
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Part A: Introduction

This document discusses the client's experience with opioid users and interprets needs which are then ranked in order of importance. Problems the client is facing are explored and defined in the problem statement.

Part B: Interpreting Customer Needs

Question	Customer Statement	Interpreted Need
Typical Uses	We need a device or "thing" that can accurately detect an opioid overdose.	Device accurately measures the respiratory rate and oxygen levels in order to monitor for an overdose..
	When an overdose is detected, emergency should be contacted.	Device has a tracking system. Alerts EMS/police (911).
	Naloxone is 100% effective when administered in the first three minutes.	Device administers naloxone within the first three minutes of detecting an overdose.
Likes - Current Tools	I like it when it is cheap. Maybe around $100.	Device is low cost (affordable).
	I like it to be portable.	Device is lightweight and compact.
	It can be worn for long periods of time.	The device has a sufficient battery.
	Device is durable.	Device is durable and made from reliable materials.
Dislikes - Current Tools	I don't like how the pulse oximeter would be difficult to keep on and wear all the time.	The device is compact and lightweight. It will be worn while doing everyday tasks.
	I don't like it if it is intrusive.	The device is non-intrusive.
	I need to be able to use my hands while wearing device.	The device can be used without interfering with everyday tasks.
Suggested Improvements	It is better if it can be worn all the time. (Don't have to take it off)	Device is comfortable, compact, and discrete.
	It is better if it is water resistant.	Device is water resistant.

Part C: Organizing and Prioritizing Needs

Number	Need	Importance
1	Cost/affordable	4
2	Portable	5
3	Durable	4
4	Tracks location	5
5	Comfortable	3
6	Compact	2
7	Water resistant	1
8	Non-intrusive	4
9	Discrete	3
10	Accurately measure oxygen level	5
11	Measure respiratory rate	2
12	Administer Naloxone	2
13	Manual override for naloxone in case of false positive	4

The needs are ranked from highest importance to lowest. 5 being the largest value and 1 being the smallest.

Part D: Problem Statement

The need exists for a non-intrusive, wearable device that monitors oxygen levels of an opioid user and detects possible overdoses. The device is affordable, lightweight, compact and portable; and it alerts emergency responders of the location of the person affected.

Part E: Conclusion

The contents of this document discusses the client's needs and specify the requirements of an effective device and will be used as a gauge for design criteria and designs.