# **MedChecker Business Case:**

# **Understand what people need**

* *Who are your primary users?*
* *What user needs will this service address?*
* *Why does the user want or need this service?*

The primary user of our application is a member of the American public that is concerned with their own as well as their family’s health and well-being.

In today’s world, there is electronic data measuring, tracking, and even predicting numerous events that impact our daily lives such as traffic, power consumption/demand, etc. We have become accustomed to information at our fingertips and using that information to make important decisions. Data, charts, and graphs are no longer exclusive to business board rooms; but increasingly, the general public wants this data and is capable and prepared to use it to make responsible, informed decisions.

However, metrics on FDA approved drugs as well as food recall information is seemingly scattered, overwhelming, and generic. Potentially, the most common source of this information is the evening news, and that audience has been dwindling for years. The public needs this information in a simple, consolidated, aggregate, and tailored format. Moreover, we will bring this application to the user on a mobile platform, so they can make these informed decisions and purchases of food and drugs at practical times of their daily life.

# **Address the whole experience, from start to finish**

We need to understand the different ways people will interact with our services, including the actions they take online, through a mobile application, on a phone, or in person. Every encounter — whether it's online or offline — should move the user closer towards their goal.

* *Understand the different points at which people will interact with the service – both online and in person*
* *What are the different ways (both online and offline) that people currently accomplish the task the digital service is designed to help with?*

Application:

The backbone of this solution is the openFDA dataset; the technology will be accessible via website and mobile application.

Specifically, the application will:

* Present information on adverse reactions associated with a particular drug or drugs
* Share current food recall information in the user’s geographic region
* Tailor the experience for the user based on key questions in the user profile – allergen settings, state of residence, regular medications, etc.
* Alert the user, via emails and mobile notifications, of drug and food incidents when pertinent food/drug information pertaining to user profiles arises

This information will be presented in the form of charts and graphs that will aid the user in quickly and easily understanding the story of the data without doing a formal analysis themselves.

User Scenario with Application:

Public school teacher and mother of two, Kathy, visits our website. Kathy is given the option to become a member (for a more tailored experience) or to use the solution as a guest (no information required). Kathy decides to become a member, so she provides necessary information such as: email, city/state of residence, and allergies/health conditions/ages for herself and her 2 children.

One of her children has an ear infection; Kathy takes her child to the doctor and the doctor prescribes “Permapen” (a brand of drug in the Penicillin family). While waiting in the doctor’s office, Kathy decides to open our mobile application to query the common adverse reactions associated with “Permapen”. The query results of adverse reactions provided on adverse event reports are: rash (25%), swelling (15%), fever (10%), and nausea (5%). These results remind Kathy to mention to her doctor that her other child has had issues with rash and swelling when taking other similar medications in the past. She inquires if this increases the likelihood that will happen to this child and obtains appropriate medical advice on this issue. She is empowered by the quick and simple access to helpful information and received proper medical consultation on the issue.

Later that week, her child is feeling better and Kathy is on her way to the grocery store when she gets a mobile alert and an email informing her that there is a food recall on her favorite brand of peanut butter that was just issued in her state. Good to know!

User Scenario without the benefit of this application:

While at the doctor’s office, Kathy would have likely googled “Permapen reactions”. After sifting through multiple links of scholarly articles, ads, and news articles she may have found a list of known reactions – but certainly without information such as rank sorted frequency, level of seriousness, or the simplified presentation of a pie/bar chart.

Moreover, before visiting the grocery store, Kathy would not have searched for all current recalls in her area. She potentially would have bought the contaminated peanut butter and paid the price.