Constraints

1. End User = People With MS
2. There is no cure, some treatments help
3. Quality of life likely reduces with time
4. Questions can be as general and specific as possible in relation to above constraints.
5. Questions may or may not involve iMSMS dataset in relation to above constraints.

Questions Given Constraints

1. **[Outside of Constraint]:** But what if there is a cure to MS and we can somehow figure that out from the dataset? Some diseases were once thought incurable, like malaria, leprosy, polio, smallpox, rabies etc.
2. **[Very General Question]:** Given that some treatments and lifestyle choices can help reduce my condition and lessen the impact of MS in my life, how do I know what these treatments and lifestyle choices are?
3. **[Very General Question]:** I know that my condition causes me to have a poorer quality of life compared to the general populace and I know that I cannot have a ‘normal’ quality of life. So, I want to make this poorer quality of life my new normal such that I can live my ‘best’ life and set reasonable expectations on myself despite my condition. How do I do that?
4. **[Question from lived experience and humanitarian good will and specific to dataset]:** I know from lived experience that the more stressful an occupation is, the more likelier it is that someone in said occupation would be prone to abusing soft or hard drugs, soft being something like nicotine pouches and hard being something like heroin or meth, and every drug in between. For instance, nurses may be prone to abusing drugs(on account of the stressful nature of their job and their close proximity to drugs) than say, your average electrician. **I want to know how a person’s job(with varying levels of stress) and corresponding drug use correlates with prevalence of MS?** If what I do for work and what I consume to relieve work stress contributed to my MS, I would want to know that such that I can make an informed decision so that I can try to better my future and lessen my condition, if possible. Additionally, if my intuition is correct, I would want to inform others, who may or may not have MS, who may have similar jobs and comparable drug use like me, so that they don’t end up in a position similar to me.
5. **[Question geared towards the future after hypothesis testing]:** I have a strong intuition that a combination of lifestyle choices X( for instance, sunlight exposure – Vitamin D essentially), Y(for instance, regular fruit intake), Z(for instance, regular dairy intake) has a strong correlation with MS. Lets say that through hypothesis testing, I figure out that indeed, my intuition is reasonably correct. It's great that I can validate my intuition through data but I want more than that. Knowing something is one thing and action is another thing entirely. After hypothesis testing, I want to live a life of action where visual designs(like dashboards on my phone or watch) remind me to have good lifestyle choices so that I can lessen the impact of MS in my life. Is that possible?
6. **[Question based on expert assurance]:** It is known that data can say anything that you want it to say, if you manipulate it enough. As human beings, we fall prey to our biases and because of that, we attach assumptions to data and read the data in such a way to fit our assumptions. I don’t want that. Sure, I can do hypothesis testing and feel vindicated on my intuitions but because of my biases, I might fall prey to contributing knowledge(that is **not** reasonable beyond a doubt) to MS literature that at best, may not reveal anything to the community and at worst, may cause innumerable harm. There has to be a way to check my own hypothesis. **Is there a way that we can incorporate MS experts’ opinion into the design system?** Experts are human after all and fall prey to biases but I would argue that they have a better way of examining and reducing their own biases compared to me, a layman who has only lived experience to offer, which is not a bad thing but is not the whole thing.
7. **[Question relating to the experts being focused on the ‘right’ thing]:** I have noticed recently a trend of people talking about microbiome diversity in relation to MS. I am assuming that the prevalence of this conversation comes from experts, with their informed opinions, giving weight to it in some way. But are we in danger of barking up the wrong tree? **Could it be that diversity of microbiomes in an individual has nothing to do with MS?** If not, improvement of lifestyle choices to improve microbiome diversity would be in vain. Could MS simply be genetic(nature) and cannot be affected by nurture?
8. **[Question relating to ethics of data]:** How will you assure me that my intuition, which is highly personal to me, and consequently my hypothesis, which reveals something about me will be used appropriately such that my contribution is anonymized or not anonymized whenever possible?
9. **[Question relating to need of visualization]:** Too often, because of my MS, I don’t have a lot of time to read through research papers, which have a lot of merit but cannot present the data in a super digestible form. It is highly possible that some paper X out there has really pertinent information regarding MS but I don’t have the time or resources to sift through all that. **Will you be able to design a visual system that encapsulates the data at hand(not from papers but from data collection) and from papers that talk about MS?** For example, the data may show that Vitamin Dis really good at lessening the impact of MS but what do recent papers say? In one neat visual, can you compare and contrast data vs papers?
10. **[Question relating to effectiveness of one lifestyle choice vs the other]:** I know that my condition cannot be cured but I know its impacts can be lessened with good microbial diversity. If lifestyle choice X and lifestyle choice Y seem to lessen the impacts almost similarly, would you be able to show that in the visual design by comparing financial effectiveness(drugs vs exposure to sun, expensive vs cheap), temporal effectiveness(drugs vs exposure to sun, short time vs long time) etc.?