FLAREDOWN
Decode your chronic illness.

Team September '23
Southern Careers Institute

The team

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Chronic Illness: Symptoms, Treatments, and Triggers

An Exploration and Analysis of a Dataset

Purpose:

To increase understanding of chronic illness.

To answer the following questions:

- ❖ **What can this dataset tell us about nausea in relation to age, gender and geographical location?**
- ❖ **What can we learn about Crohn's Disease in this dataset?**
- ❖ **What can this dataset tell us about anxiety and depression in relation to age?**

Why is this important?

It affects everyone.

- ❖ Caregivers
- ❖ Loved ones
- ❖ The patient.

The Team has firsthand and vicarious experience.

Questions For Analysis - Nausea

What countries have the highest instances of Nauseau?

What is the average age of those who report Nauseau as a condition? What is the average age of those who report Nauseau as a symptom?
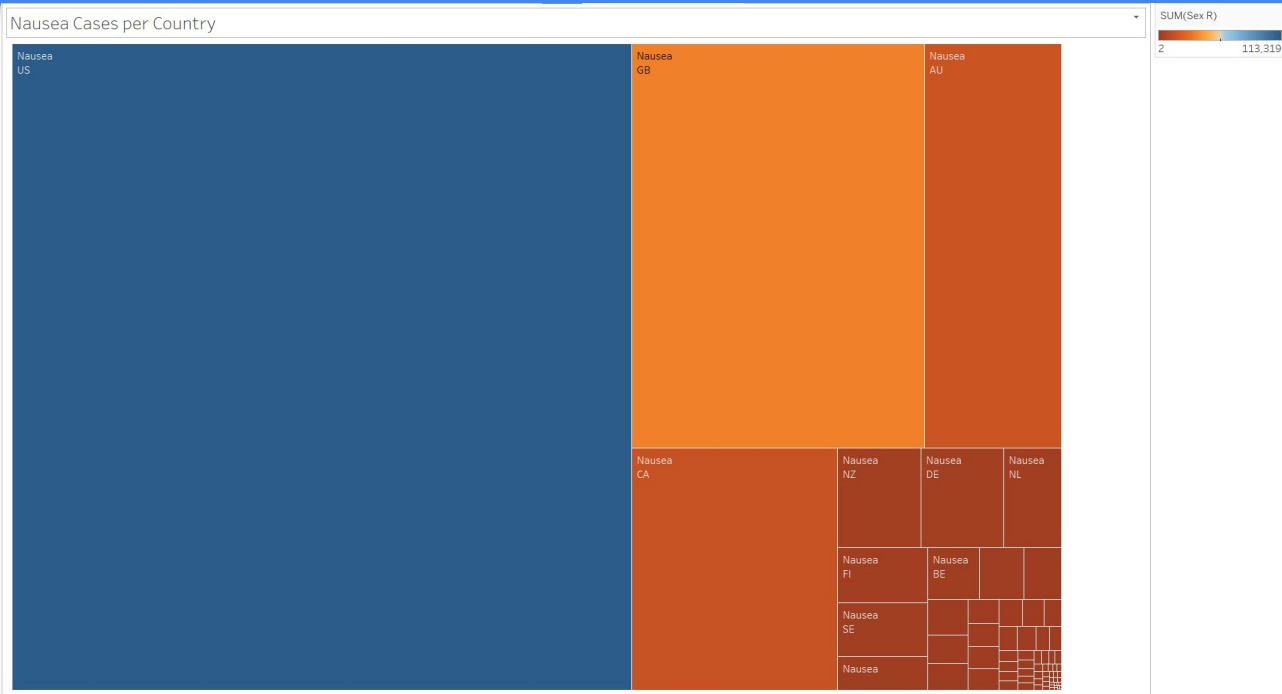
What gender has the highest reported instance of Nausea?

Reported Nausea Cases Per Country

The countries that have the highest instances of Nausea per reported genders are:

- ❖ United States
- ❖ Great Britain
- ❖ Australia
- ❖ Canada

Nausea as a Condition and Symptom

Nausea was reported as both

a Condition and a Symptom.

The average reported age for Nausea as a Condition

35 years old.

The average reported age for Nausea as a Symptom is 31 years old.

Nausea Avg. Age per Condition/Symptom

Trackabl..	Trackabl..	
Nausea	Condition	35.565
	Symptom	31.749

Nausea Per Gender Globally

Females reported the

highest number of Nausea

cases per gender globally.

Nausea per Gender per Country

Sex		Trackable Name Nausea
doesnt_s..		
female		
male		
other		

Questions For Analysis - Crohn's Disease

What countries have the highest instances of Crohn's Disease?

What is the average age of those who report Crohn's disease as a condition? What is the average age of those who report Crohn's disease as a symptom?

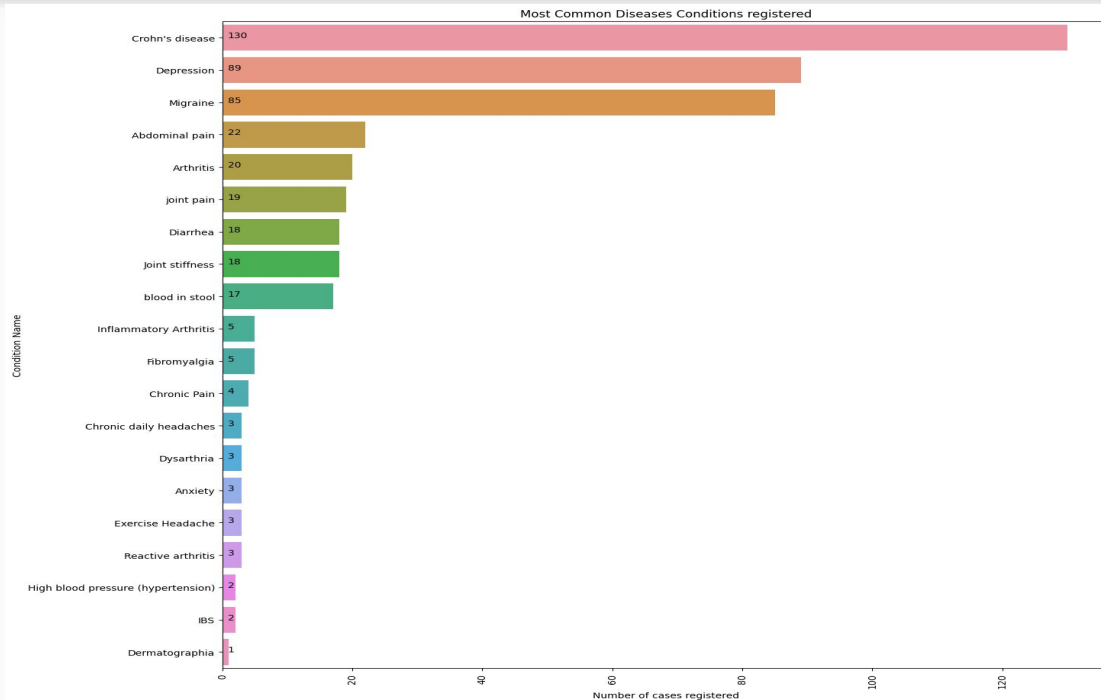What gender has the highest reported instance of Crohn's disease?

HBI: the Harvey Bradshaw Index is a standardized metric to gauge the severity of Crohn's disease specifically, often used in evaluation of therapies. Patients with Crohn's disease who scored 3 or less on the HBI are very likely to be in remission according to the CDAI. Patients with a score of 8 to 9 or higher are considered to have severe disease.

Reported Conditions Associated with Crohn's Disease

Top five conditions associated with Crohn's Disease

- ❖ Depression
- ❖ Migraine
- ❖ Abdonimal Pain
- ❖ Arthritis
- ❖ Joint Pain

Most Common Diseases Conditions registered

Condition Name	Number of cases registered
Crohn's disease	130
Depression	89
Migraine	85
Abdominal pain	22
Arthritis	20
joint pain	19
Diarrhea	18
Joint stiffness	18
blood in stool	17
Inflammatory Arthritis	5
Fibromyalgia	5
Chronic Pain	4
Chronic daily headaches	3
Dysarthria	3
Anxiety	3
Exercise Headache	3
Reactive arthritis	3
High blood pressure (hypertension)	2
IBS	2
Dermatographia	1

Crohn's Disease - Average Age

count	2349.000000
mean	36.650064
std	6.322479
min	18.000000
25%	33.000000
50%	40.000000
75%	40.000000
max	54.000000

The average age of people with Crohn's Disease = 37

The youngest person in our dataset with the disease = 18

The oldest person in our dataset with the disease = 54

Crohn's Disease Per Gender

Females reported the highest number of Crohn's Disease cases. Also this disease was only reported in the US in our dataset.
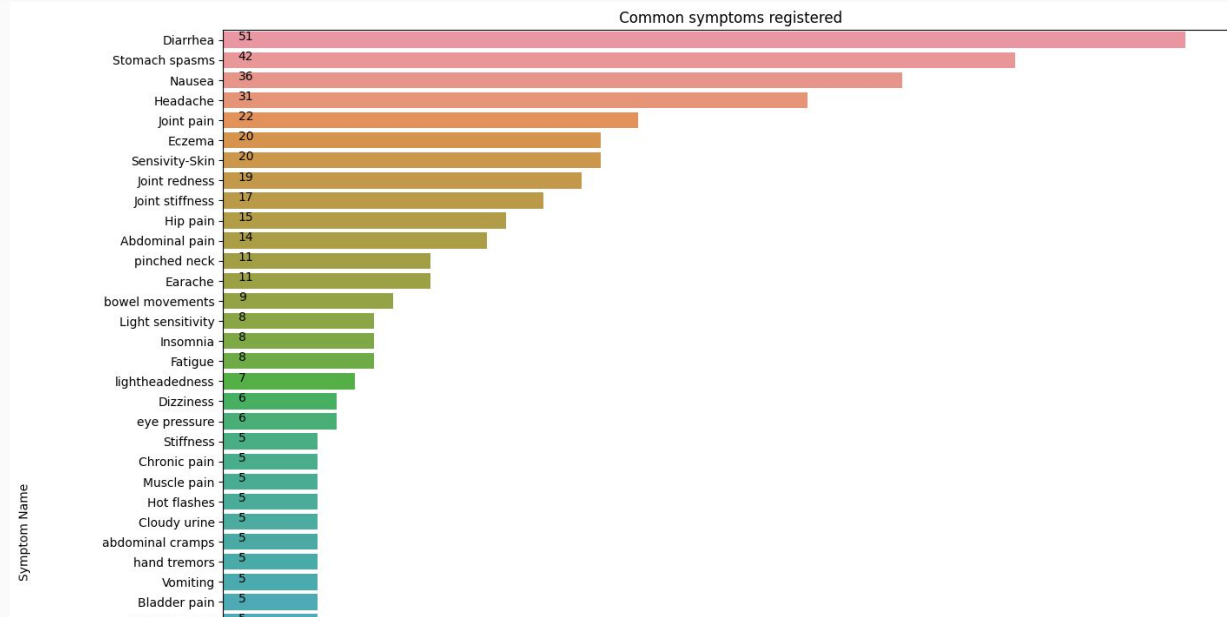
	Number_of_Users
Doesnt_say	0
Others	1
Male	0
Female	11

Symptoms Associated w/ Crohn's Disease

Total number of unique symptoms = 53

❖ Diarrhea
❖ Stomach Spasms
❖ Nausea
❖ Headache
❖ Joint Pain

Common symptoms registered

Symptom Name	Count
Diarrhea	51
Stomach spasms	42
Nausea	36
Headache	31
Joint pain	22
Eczema	20
Sensivity-Skin	20
Joint redness	19
Joint stiffness	17
Hip pain	15
Abdominal pain	14
pinched neck	11
Earache	11
bowel movements	9
Light sensitivity	8
Insomnia	8
Fatigue	8
lightheadedness	7
Dizziness	6
eye pressure	6
Stiffness	5
Chronic pain	5
Muscle pain	5
Hot flashes	5
Cloudy urine	5
abdominal cramps	5
hand tremors	5
Vomiting	5
Bladder pain	5

Treatments Associated w/ Crohn's Disease

Total number of unique treatments is 21. Top five treatments associated with Crohn's Disease

- ❖ Medical Marijuana
- ❖ CBD capsules
- ❖ Humira
- ❖ Colazal
- ❖ Vitamins
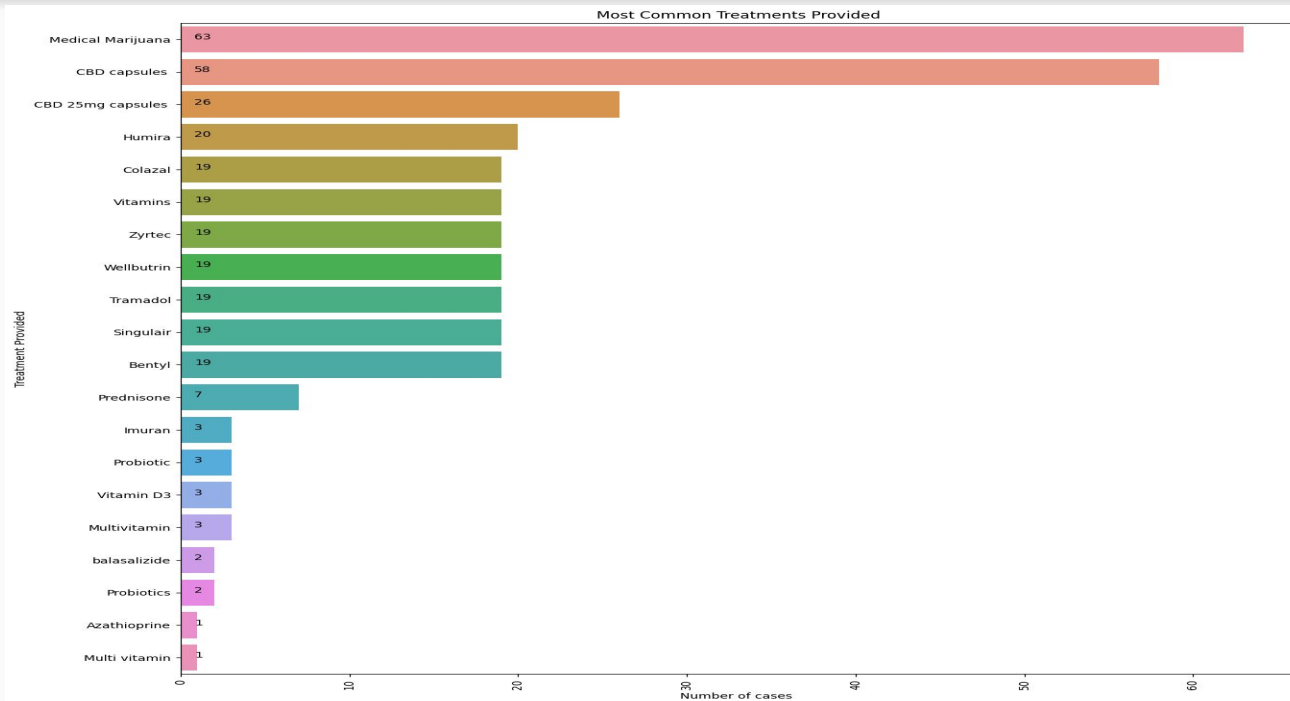
Mental health and illness

- The mind and brain are complex

- Understanding has improved

- Treatment is encouraged and readily available

- How does this affect the age demographic for seeking treatment?

Focus on Anxiety and Depression

- 10 most common chronic illnesses in dataset
- Anxiety and Depression 2 most common mental health diagnoses.
  - 7995 people suffer from Anxiety disorders
  - 9335 people are diagnosed with Depression
  - Many other experience symptoms of anxiety and depression temporarily or intermittently.
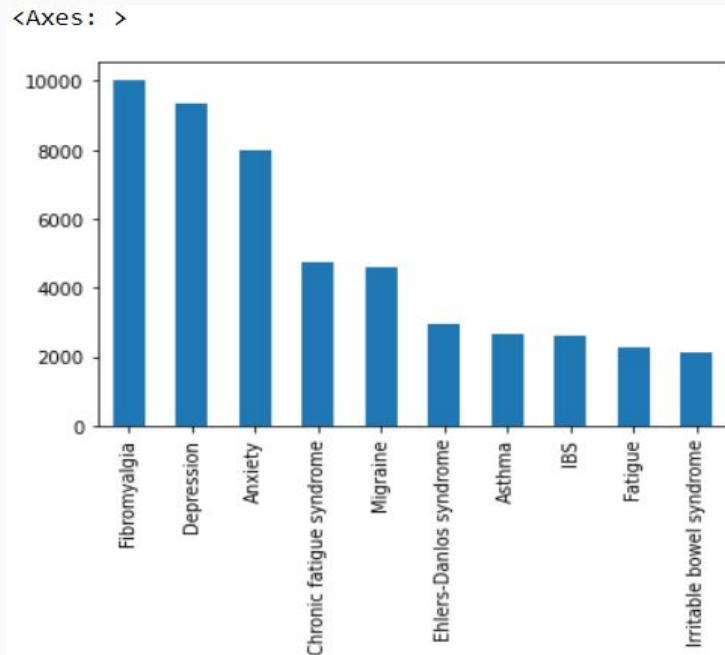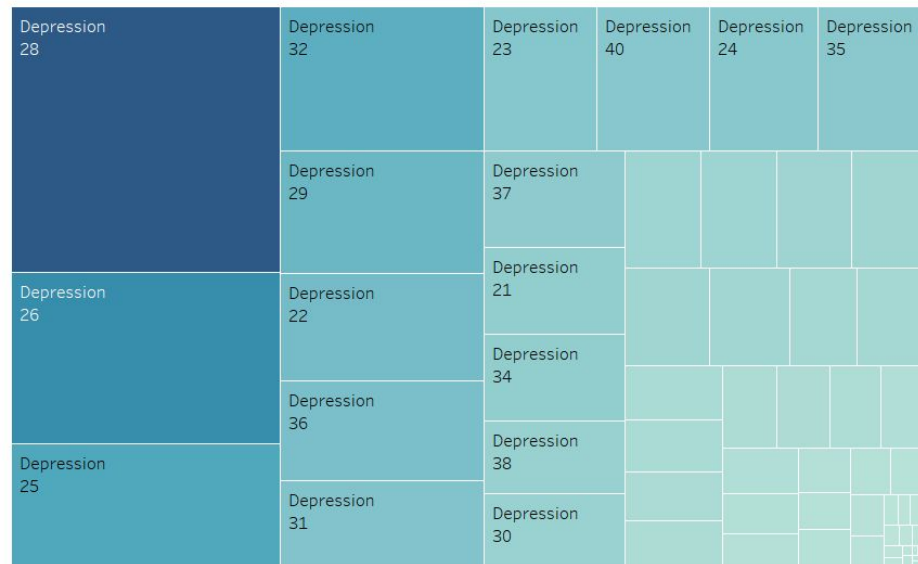
Anxiety by age

- Age of 26 most frequent diagnosis
- Most common age range mid 20s to mid 30s
- Anxiety can affect anyone at any age
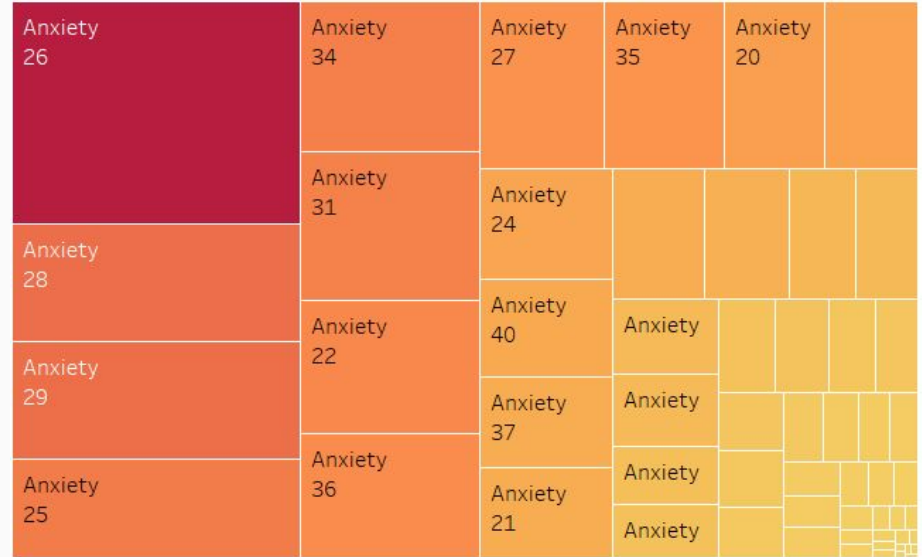
Depression by age

- Most frequently diagnosed at 28
- Most commonly affects mid 20s to mid 30s
- Not limited to above age range
- Similar to diagnoses of Anxiety

Depression by Age

Depression 28	Depression 32	Depression 23	Depression 40	Depression 24	Depression 35
	Depression 29	Depression 37			
		Depression 21			
Depression 26	Depression 22	Depression 34			
	Depression 36	Depression 38			
Depression 25	Depression 31	Depression 30			

Ibuprofen vs Nausea

- Users with Nausea that took Ibuprofen: 509

- "Based on our data, there's little evidence to suggest that Ibuprofen significantly impacts the severity of headaches."
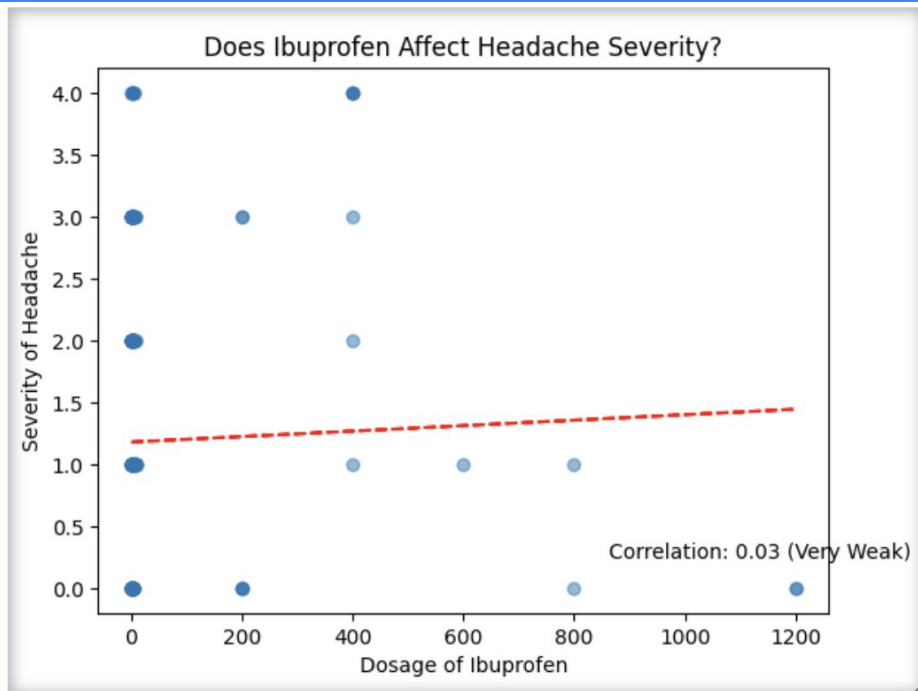
Mental health assessment

- The average age across the board for dataset is 35
- Understanding and use of technology
- Changing views on mental health diagnoses and treatment
- A holistic approach

These are just a few examples.

Increase understanding

Lead to more effective treatments

So much more to learn