Triage

PATIENT PRIORITY

Facts, numbers, and guidelines

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Presentation Outline

TRIAGE

Triage refers to the sorting of injured or sick people according to their need for emergency medical attention. It is a method of determining priority for who gets care first. Triage may be performed by emergency medical technicians (EMTs), hospital emergency room gatekeepers, soldiers on a battlefield, or anyone with knowledge of the system during an emergency situation.

Presentation Outline

History of Triage

Triage comes from the French word trier, which means to sort or select. Its historic roots for medical purposes go back to the days of Napoleon when triaging large groups of wounded soldiers was necessary. Over the centuries, triage systems have evolved into a well-defined priority process, sometimes requiring specific training depending on the setting or organization that uses the system.

When?

the medical-care system is overloaded, meaning there are more people who need care than there are available resources to care for them.1

There may be mass casualties in a war zone, terrorist incident, or natural disaster that results in many injuries. There may be a need for triage when a school bus accident or a large pile-up of cars on a highway results in too many injured people for too few ambulances or EMTs.

How Triage Works

Red: Needs immediate attention for a critical life-threatening injury or illness; transport first for medical help.
Orange: Serious injuries needing immediate attention. In some systems, yellow tags are transported first because they have a better chance of recovery than red-tagged patients.
Yellow: Less serious or minor injuries, non-life-threatening, delayed transport; will eventually need help but can wait for others.
Green: (dismiss) are given to those with minor injuries for whom a doctor's care is not required.
Blue: No injury or illness (not used in all systems)

Heart disease

is also known as Cardiovascular diseases (CVDs) are the number 1 cause of death globally, taking an estimated 17.9 million lives each year which is about 32% of all deaths globally. CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease, and other conditions.

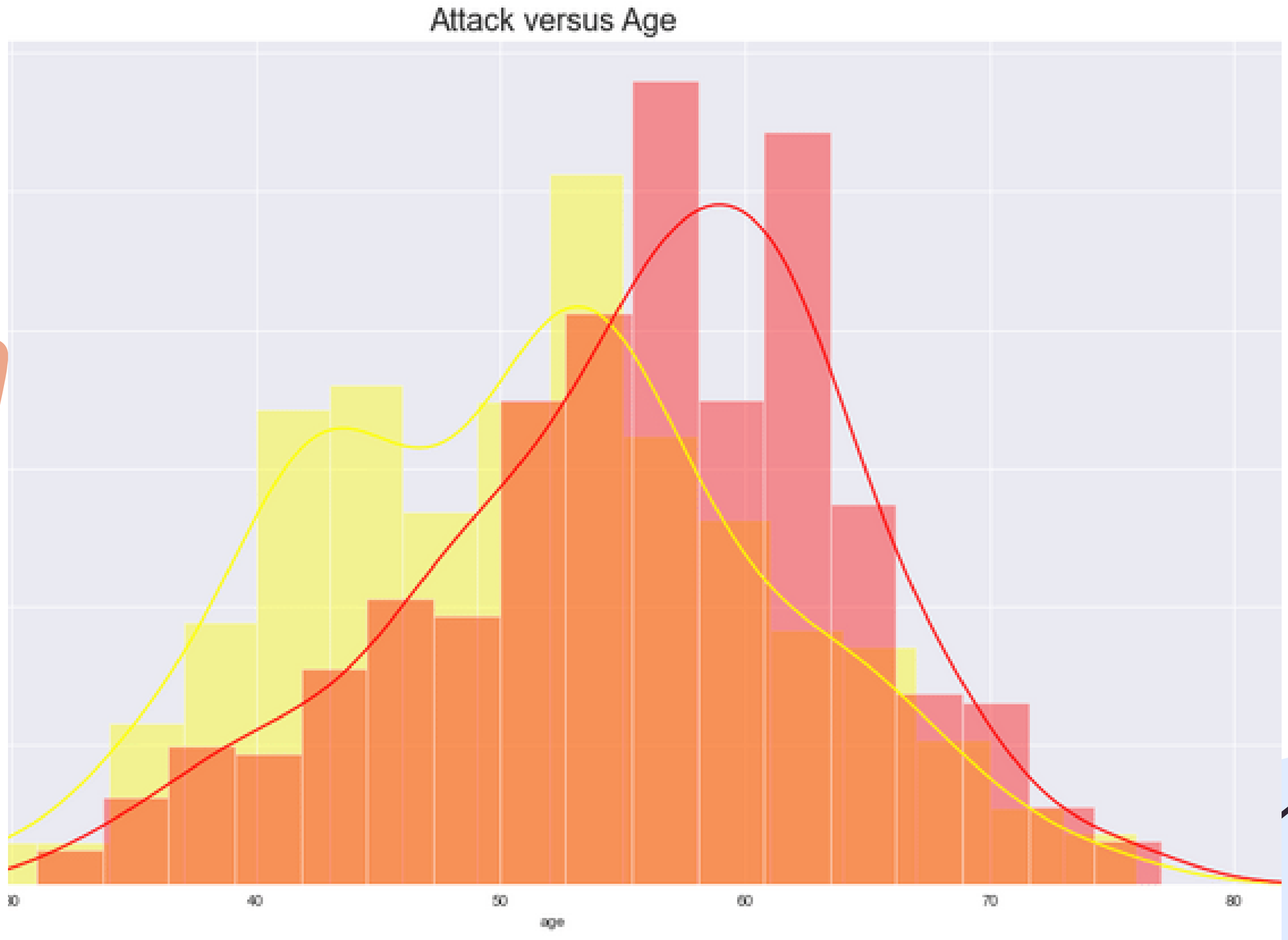
- Age
- Sex
- Chest Pain Type --> categorized into 1 typical, 2 typical angina, 3 non-anginal pain, 4 asymptomatic
- resting bp s --> Level of blood pressure at resting mode in mm/HG (Numerical)
- cholesterol --> Serum cholestrol in mg/dl (Numeric)
- fasting blood sugar --> Blood sugar levels on fasting > 120 mg/dl represents as 1 in case of true and 0 as false
- max heart rate --> Maximum heart rate achieved (Numeric)
- exercise angina --> Angina induced by exercise 0 depicting NO 1 depicting Yes (Nominal)

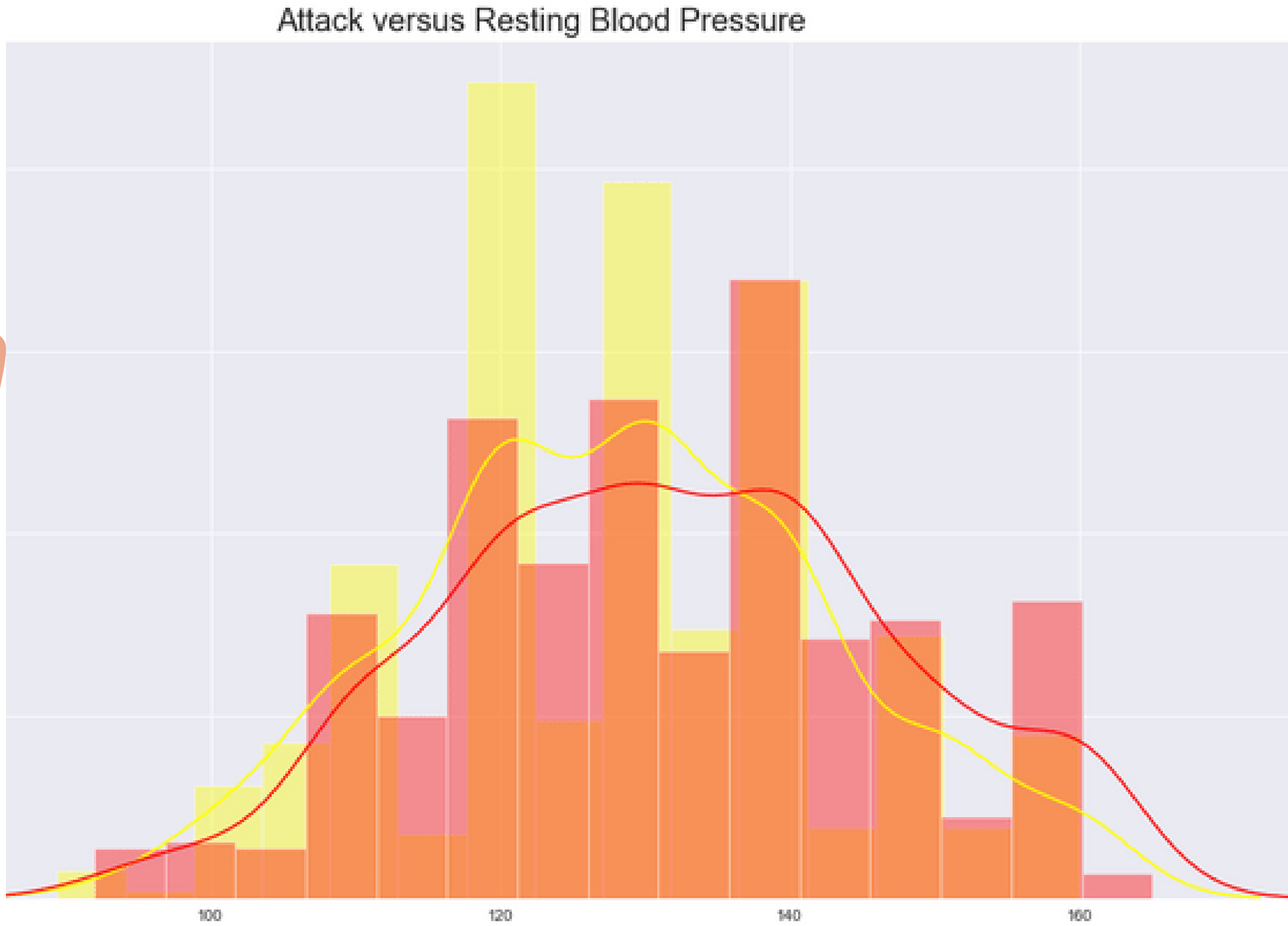
INITIAL SYMPTOMS

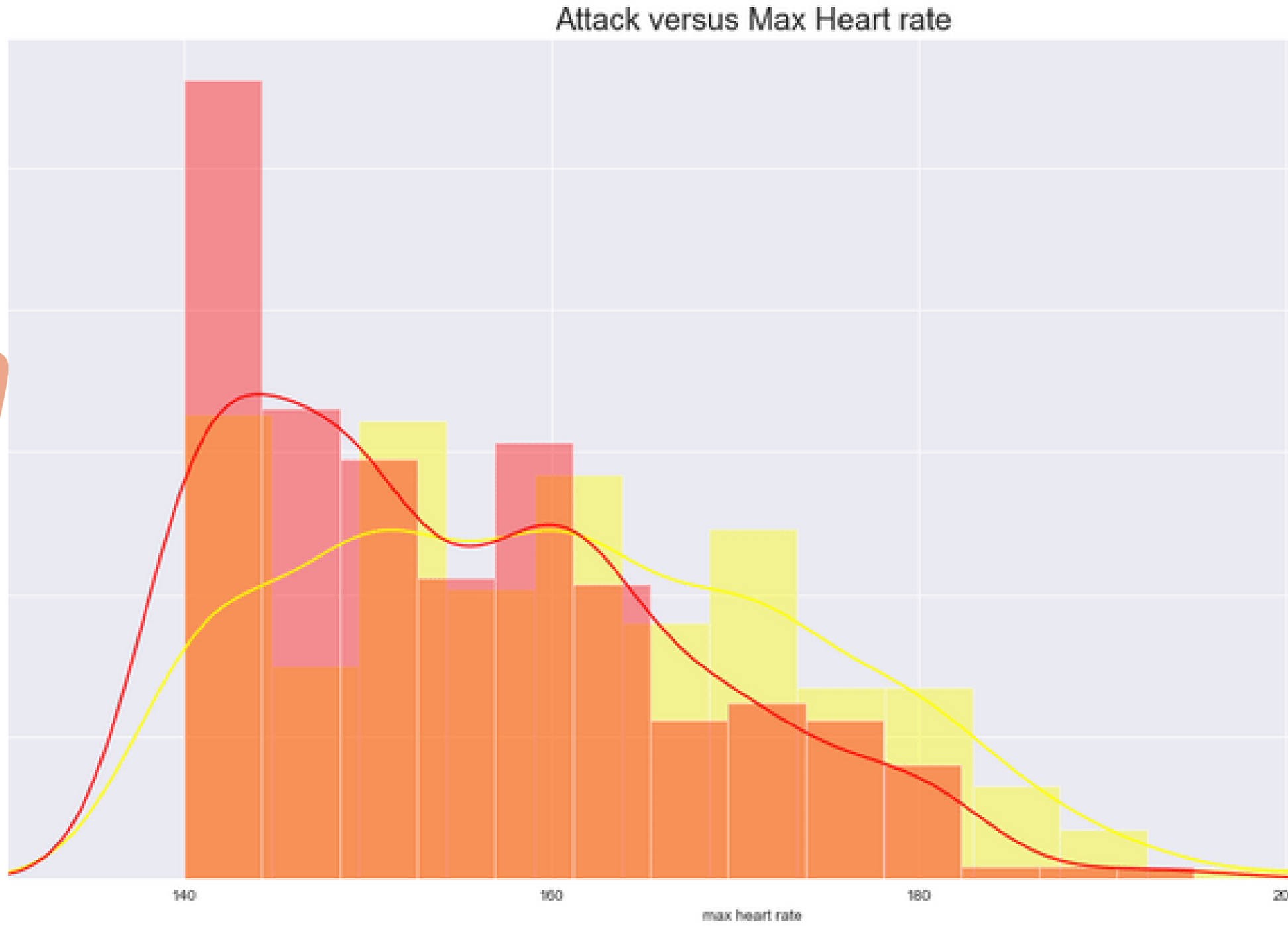
Chest Pain

Resting Blood Pressure

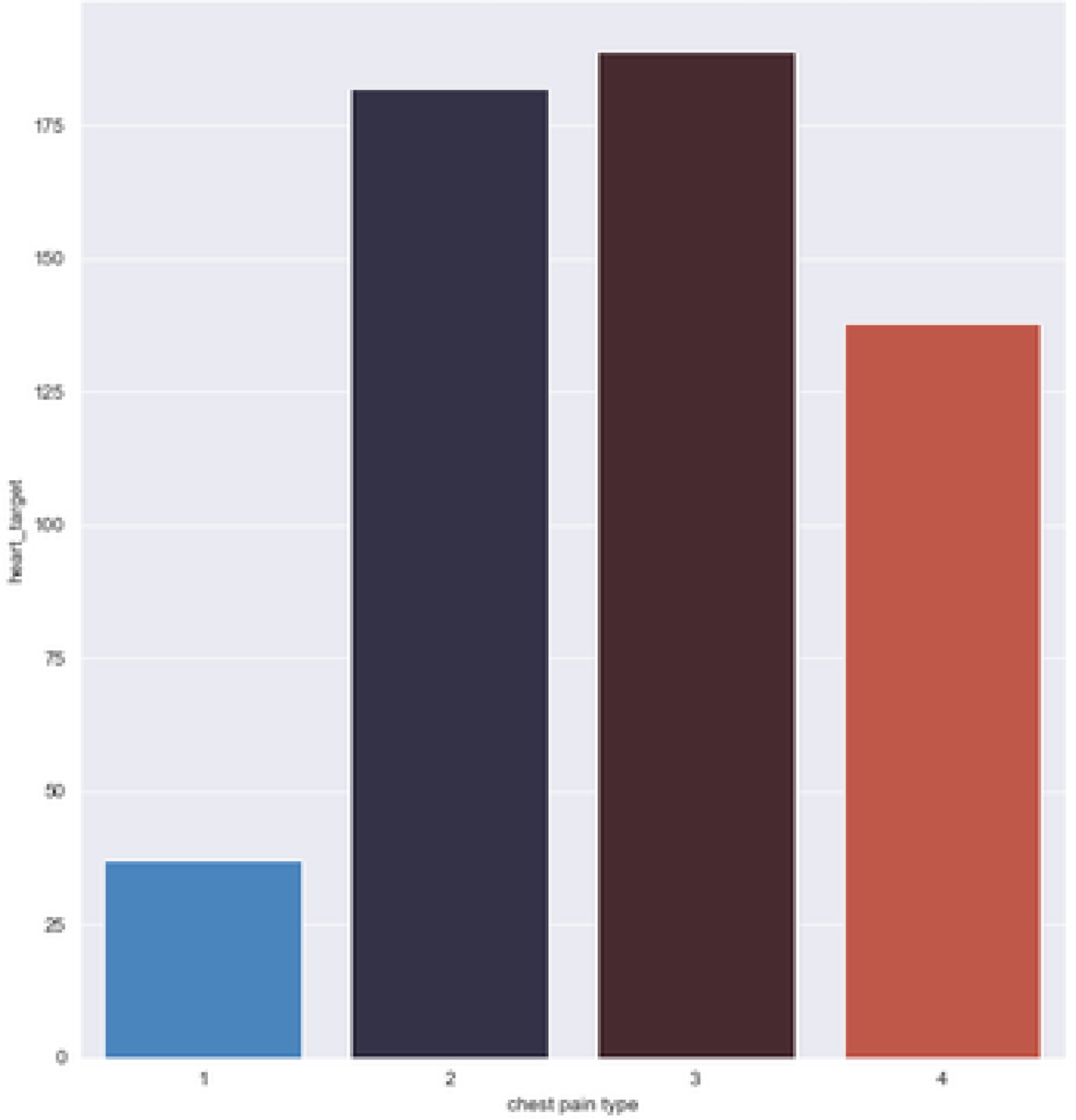
Max Heart Rate


Attack versus Age
30
40
50
60
70
80
age


Attack versus Resting Blood Pressure
100
120
140
160


Attack versus Max Heart rate
140
160
180
max heart rate

Chest Pain Type 3 is High at no heart attack because when patient when feels with high chest pain may suspect he ha



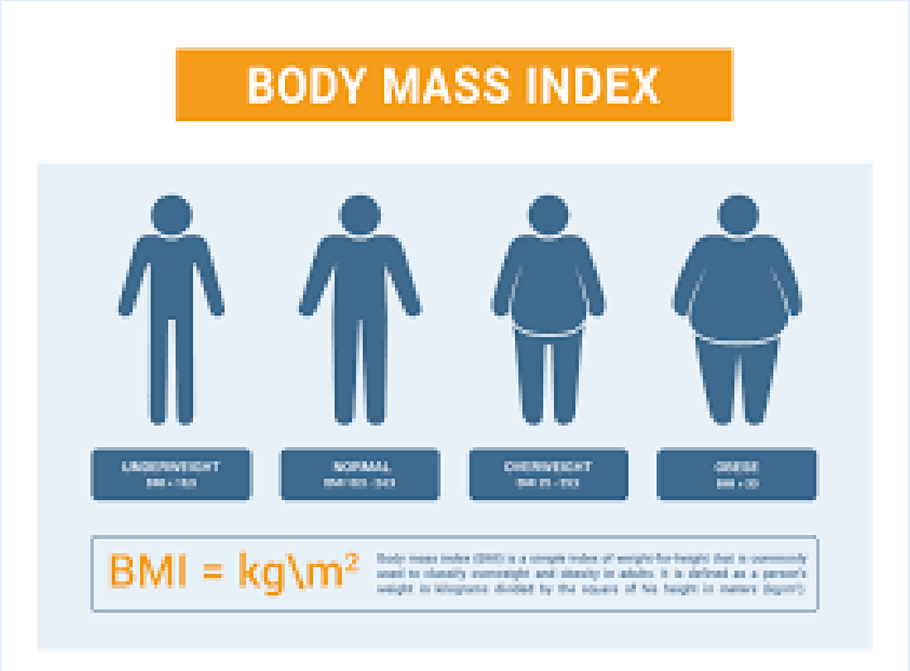
Diabetes

is a chronic (long-lasting) health condition that affects how your body turns food into energy.

Your body breaks down most of the food you eat into sugar (glucose) and releases it into your bloodstream. When your blood sugar goes up, it signals your pancreas to release insulin. Insulin acts like a key to let the blood sugar into your body's cells for use as energy.

plas = Plasma glucose concentration a 2 hours in an oral glucose tolerance test
pres = Diastolic blood pressure (mm Hg)
skin = Triceps skin fold thickness (mm)
insuling = 2-Hour serum insulin (mu U/ml) -- used to assess how an individual processes glucose and how the insulin in the body responds to those glucose levels.
mass = Body mass index (weight in kg/(height in m)^2)
pedi = Diabetes pedigree function
age = Age (years)

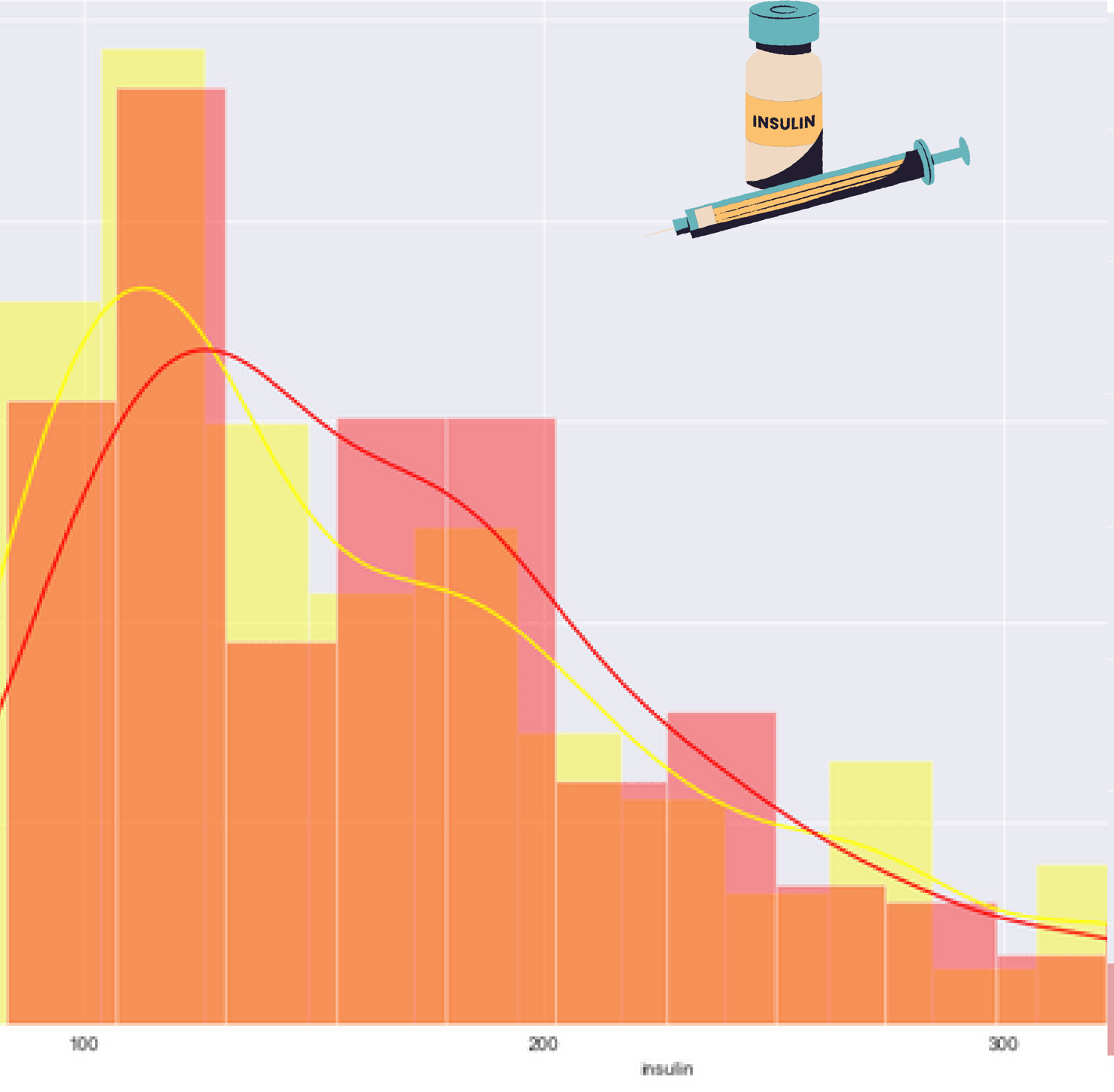
INITIAL SYMPTOMS

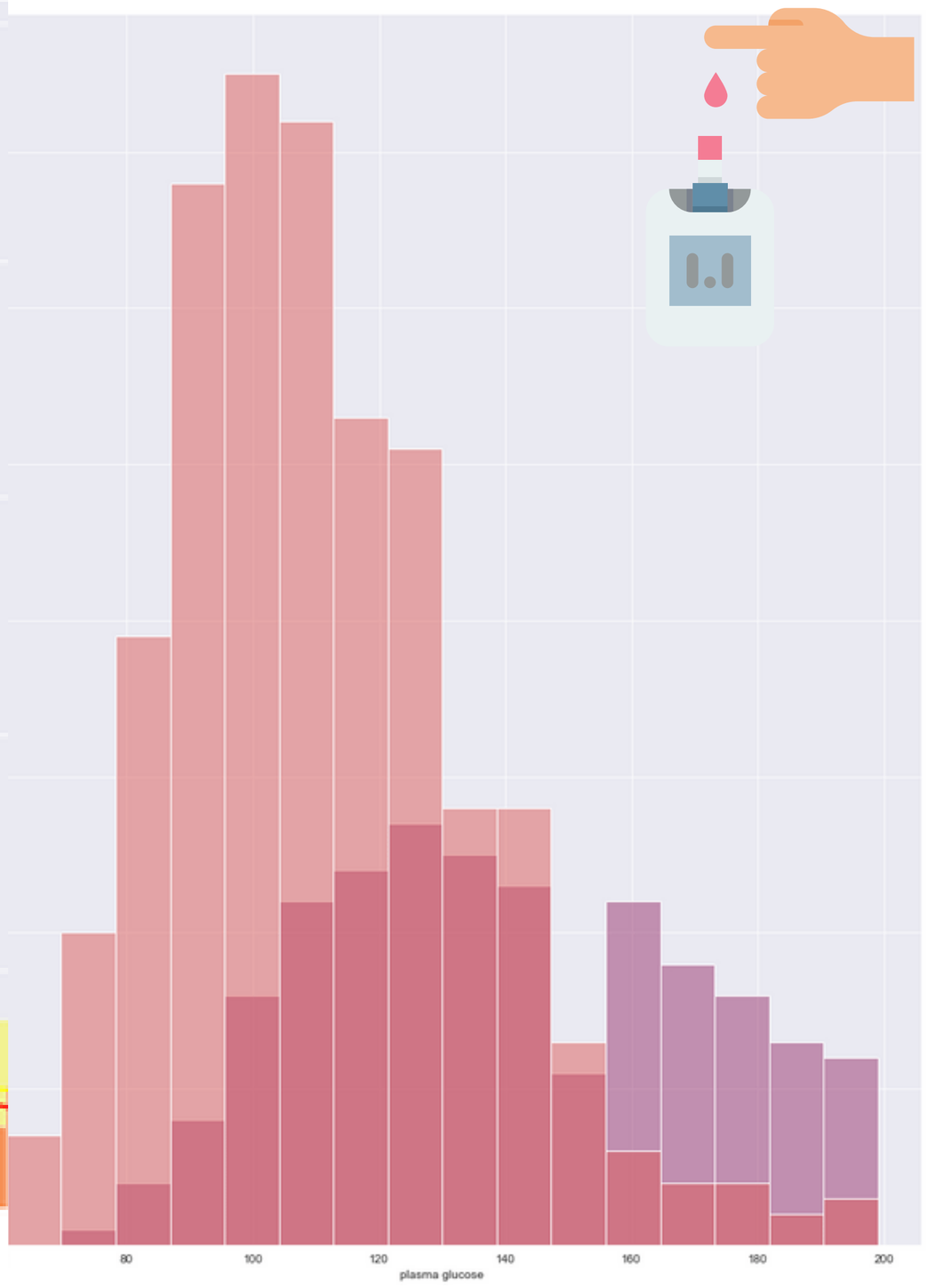


Plasma Glucose

Insulin

Bmi

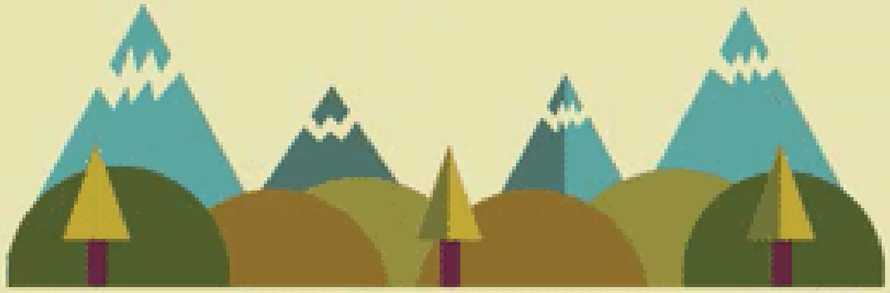

INSULIN
100
200
300
insulin


80
100
120
140
160
180
200
plasma glucose
diabetes

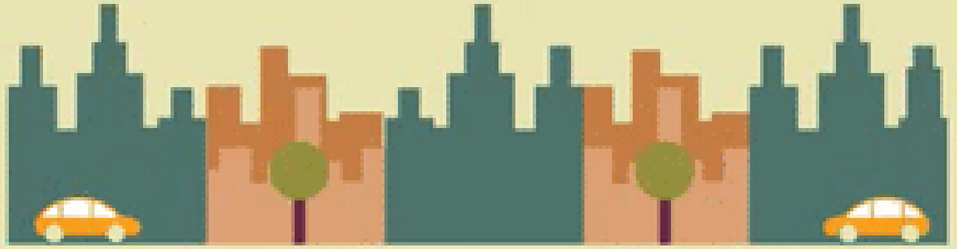
Stroke Prediction

What is a stroke? A stroke happens when the blood supply to part of the brain is cut off, killing brain cells. Damage to the brain can affect how the body works. It can also change how you think and feel. The effects of a stroke depend on where it takes place in the brain, and how big the damaged area is. # Stroke is the foremost cause of long-term adult morbidity and the fifth leading cause of death in the United States.

- Age
- Gender
- Residence Type: "Rural" or "Urban"
- Hypertension: 0 if the patient doesn't have hypertension, 1 if the patient has hypertension
- Heart disease: 0 if the patient doesn't have any heart diseases, 1 if has
- bmi: body mass index
- Avg Glucose level: average glucose level in blood
- Smoking Status: "formerly smoked", "never smoked", "smokes"



VS.



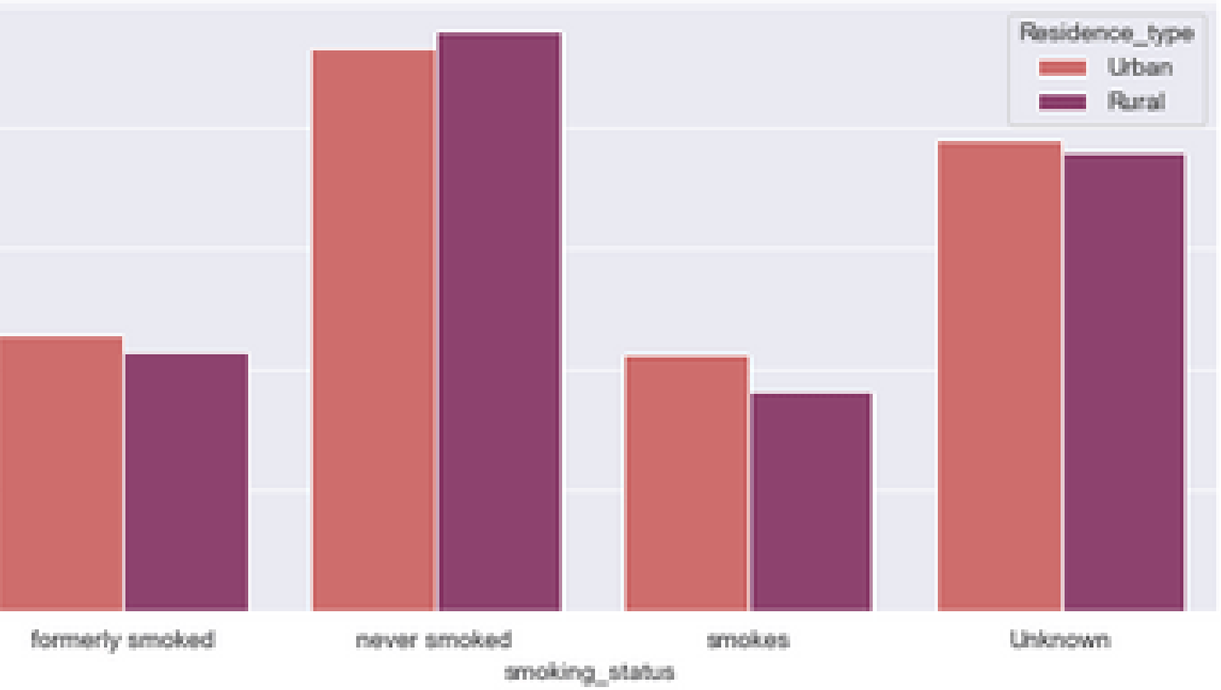
RURAL

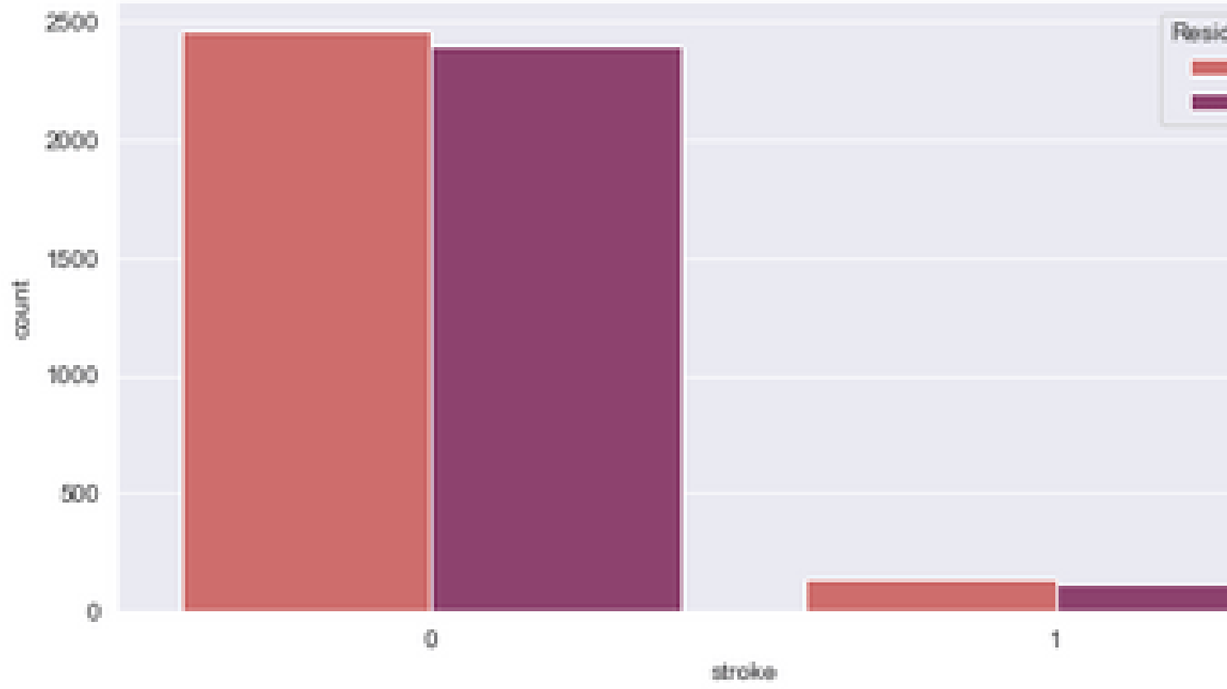
URBAN

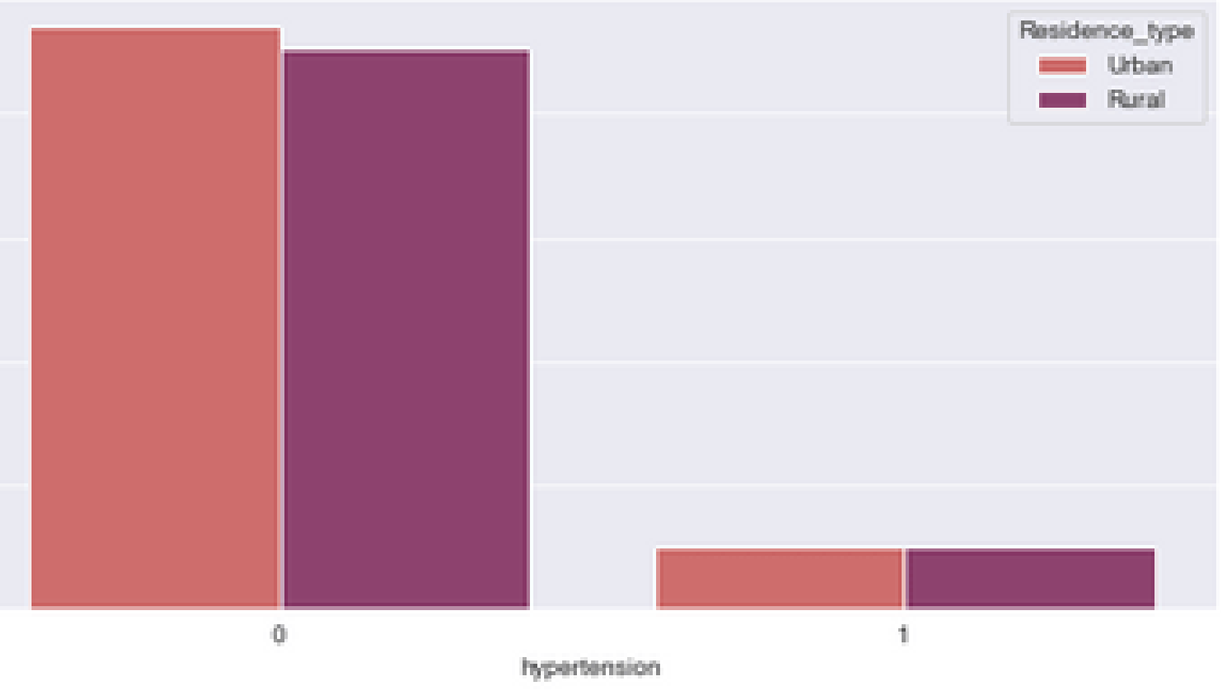
Rural vs Urban

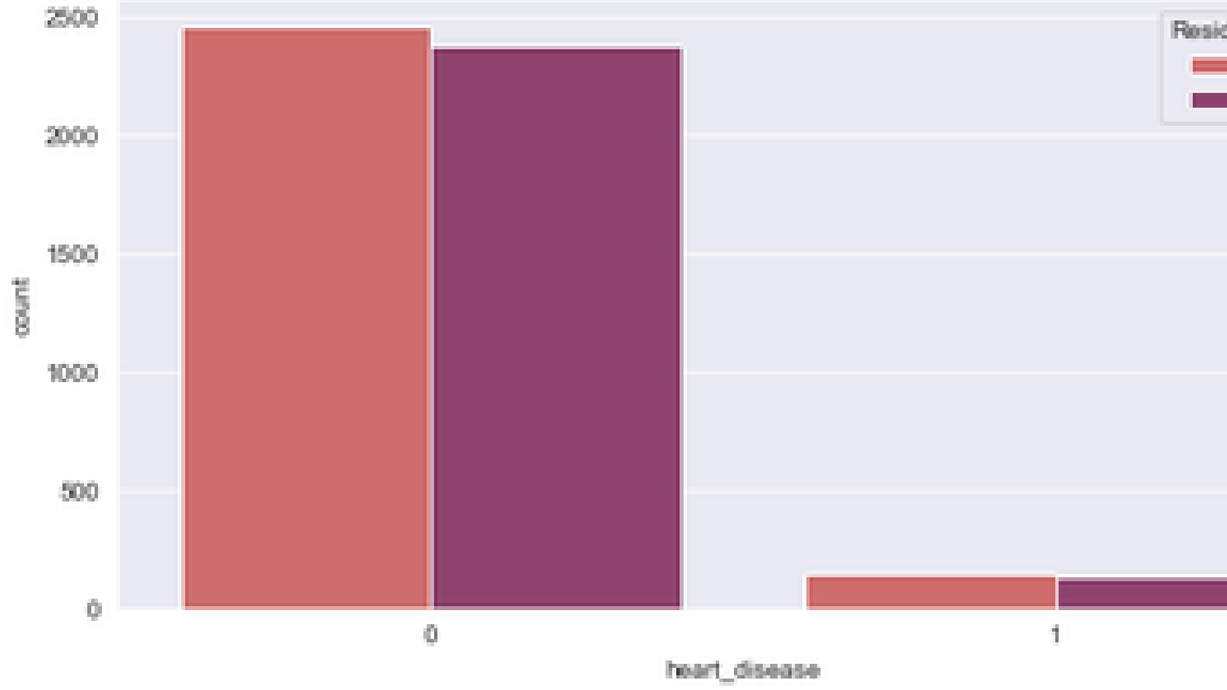
Based on the density of population, development, amenities, employment opportunities, education, etc. human settlement is majorly divided into two categories i.e. Urban and Rural. Urban refers to a human settlement where the rate of urbanisation and industrialisation is high. On the other hand, in a rural settlement, is one where the rate of urbanisation is quite slow.

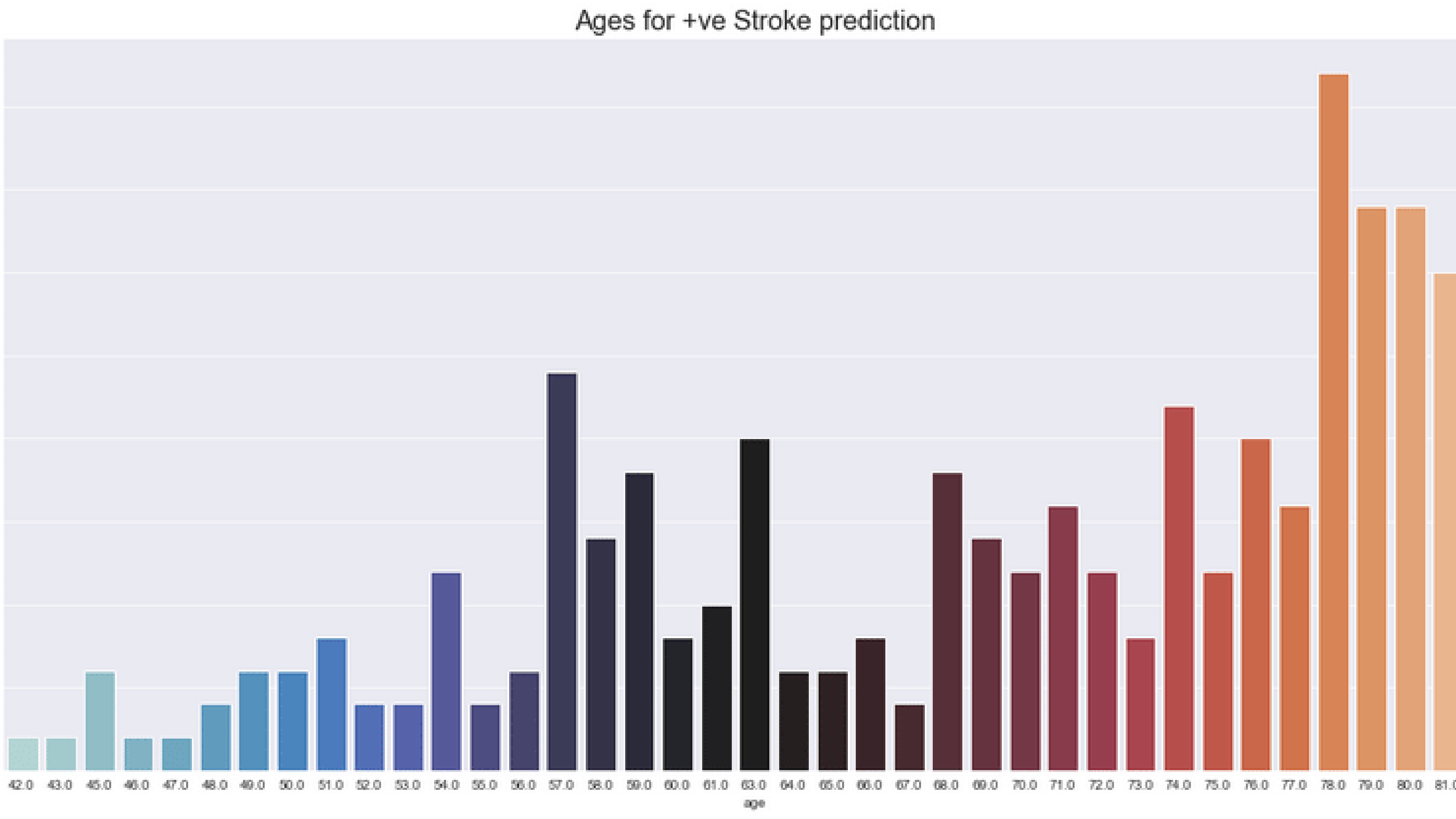
Another important difference between the two human settlements is that while urban areas are highly populated, rural areas have comparatively less population than the urban ones.


Residence_type
Urban
Rural
formerly smoked
never smoked
smokes
Unknown
smoking_status


2500
2000
1500
1000
500
0
count
0
1
stroke


Residence_type
Urban
Rural
0
1
hypertension


2500
2000
1500
1000
500
0
count
0
1
heart_disease


Ages for +ve Stroke prediction
42.0
43.0
45.0
46.0
47.0
48.0
49.0
50.0
51.0
52.0
53.0
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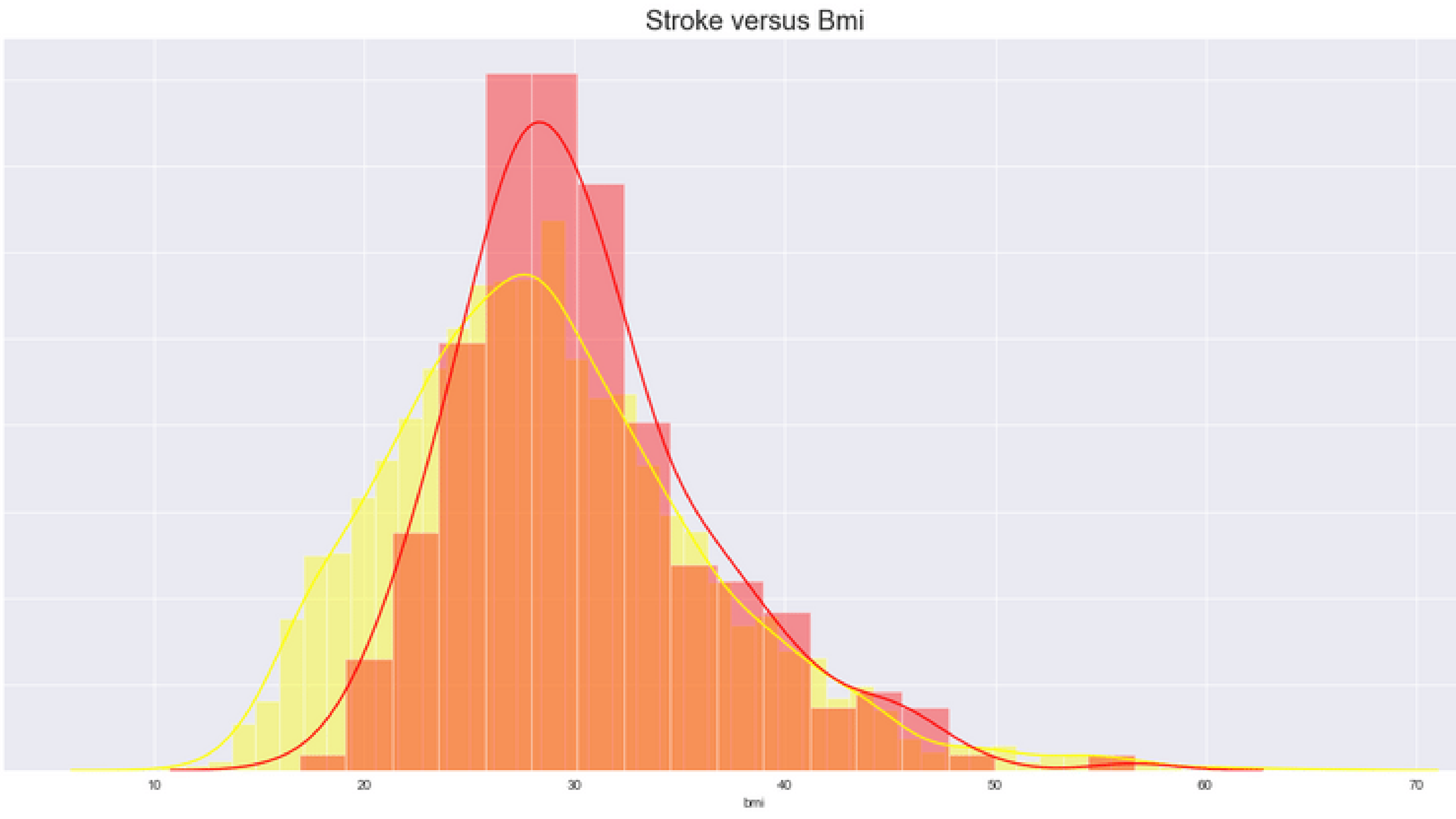
77.0
78.0
79.0
80.0
81.0
age


Stroke versus Bmi
10
20
30
40
50
60
70
bmi

TRIAGE CATEGORIES

Triage

The basic medical triage definition is to sort patients at a medical facility to receive medical care based on the urgency or severity of their needs. Treatment and resources must be prioritized to those with the greatest and most immediate medical needs. This allows the medical personnel to most efficiently and productively give urgent healthcare to all those in the facility. A decision that falls into the category of what is triage decision is imperative to the smooth and efficient functioning of a healthcare facility.

Reverse triage

Reverse Triage : is a method that is commonly used during emergencies and disasters. In reverse triage, injured people with fewer damages and minor injuries are at the priority of receiving services. This is also used in cases, where the treatment team or soldiers, during the war, are injured.

NEXT STEP

How to Choose Our Ideal Patient

Pay Attention!

There is no ideal patient and not ideal pateint , triage classification is just theoritical theory , it ofen used in case of lake of resources or huge panademic like covid-19 , so we give priority to patients over another according to his symptoms which may cause death

ALL NEED CARE!

System Thinking

Age

- Is the biological age of a patient more important than the chronological age?

Plasma Glucose

- permanent damage to the nerves in your hands and feet
- permanent damage to your eyes and problems with your sight or life-threatening conditions such as diabetes

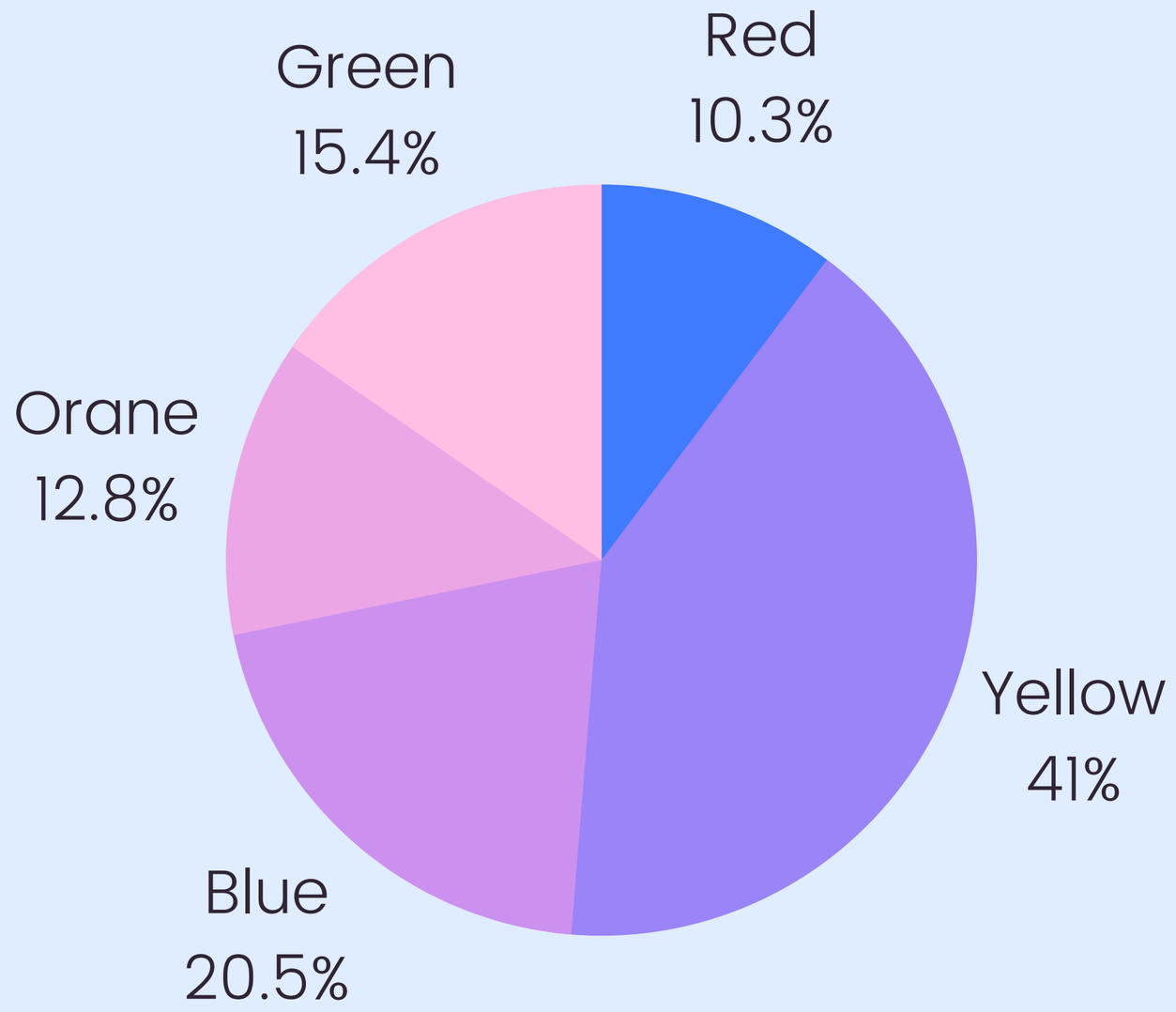
Chest Pain

- Most heart attacks involve discomfort in the center or left side of the chest that lasts for more than a few minutes or that goes away and comes back. The discomfort can feel like uncomfortable pressure, squeezing, fullness, or pain.

Blood Pressure

- High blood pressure, or hypertension, rarely has noticeable symptoms. But if untreated, it increases your risk of serious problems such as heart attacks and strokes.

DISINFECTION METHODS



JUST BE SAFE

github.com/HossamahmedA/Triage-preprocessing