

Maternal Health Risk Analysis and Classification

1. Problem Identification

Many pregnant women die from complications of pregnancy because of not having enough information about maternal health care during pregnancy and post-pregnancy. Every moment should be monitored during pregnancy for the healthy development of fetal and for making sure of the harmless delivery. Proper care and diagnosis at the beginning of pregnancy can help to reduce the preventable death of pregnant women and neonatal especially in rural areas

In this notebook, we will analyze several attributes that affect the health of pregnant women. We will also create a machine learning model to predict the level of health risk for pregnant women.

2. Importing Packages and Dataset

2.1 Importing Packages

```
In [1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

from sklearn.model_selection import train_test_split as split, GridSearchCV
from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import accuracy_score, confusion_matrix

import os
for dirname, _, filenames in os.walk('/kaggle/input'):
    for filename in filenames:
        print(os.path.join(dirname, filename))
```

/kaggle/input/maternal-health-risk-data/Maternal Health Risk Data Set.csv

2.2 Importing Dataset

```
In [2]: data = pd.read_csv(r'/kaggle/input/maternal-health-risk-data/Maternal Health Risk Data Set.csv')
data.head()
```