Figure 6: Box plot to show Distribution of Diabetes Percentage with the States

R-squared: 0.04722778062986996

```
                          OLS Regression Results
==============================================================================
Dep. Variable:               % OBESE   R-squared:                       0.024
Model:                           OLS   Adj. R-squared:                  0.024
Method:                Least Squares   F-statistic:                     44.20
Date:               Sun, 08 Oct 2023   Prob (F-statistic):           1.09e-19
Time:                       03:02:28   Log-Likelihood:                -3869.5
No. Observations:               3540   AIC:                             7745.
Df Residuals:                   3537   BIC:                             7764.
Df Model:                          2
Covariance Type:           nonrobust
==============================================================================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const         17.5673      0.115    152.799      0.000      17.342      17.793
% INACTIVE     0.0541      0.006      8.780      0.000       0.042       0.066
% DIABETIC     0.0201      0.007      2.853      0.004       0.006       0.034
==============================================================================
Omnibus:                    2753.404   Durbin-Watson:                   2.004
Prob(Omnibus):                 0.000   Jarque-Bera (JB):           118367.402
Skew:                         -3.313   Prob(JB):                         0.00
Kurtosis:                     30.543   Cond. No.                         176.
==============================================================================
```

Figure 1 Regression Results

Linear Regression: Actual vs. Predicted % OBESE with Regression Line
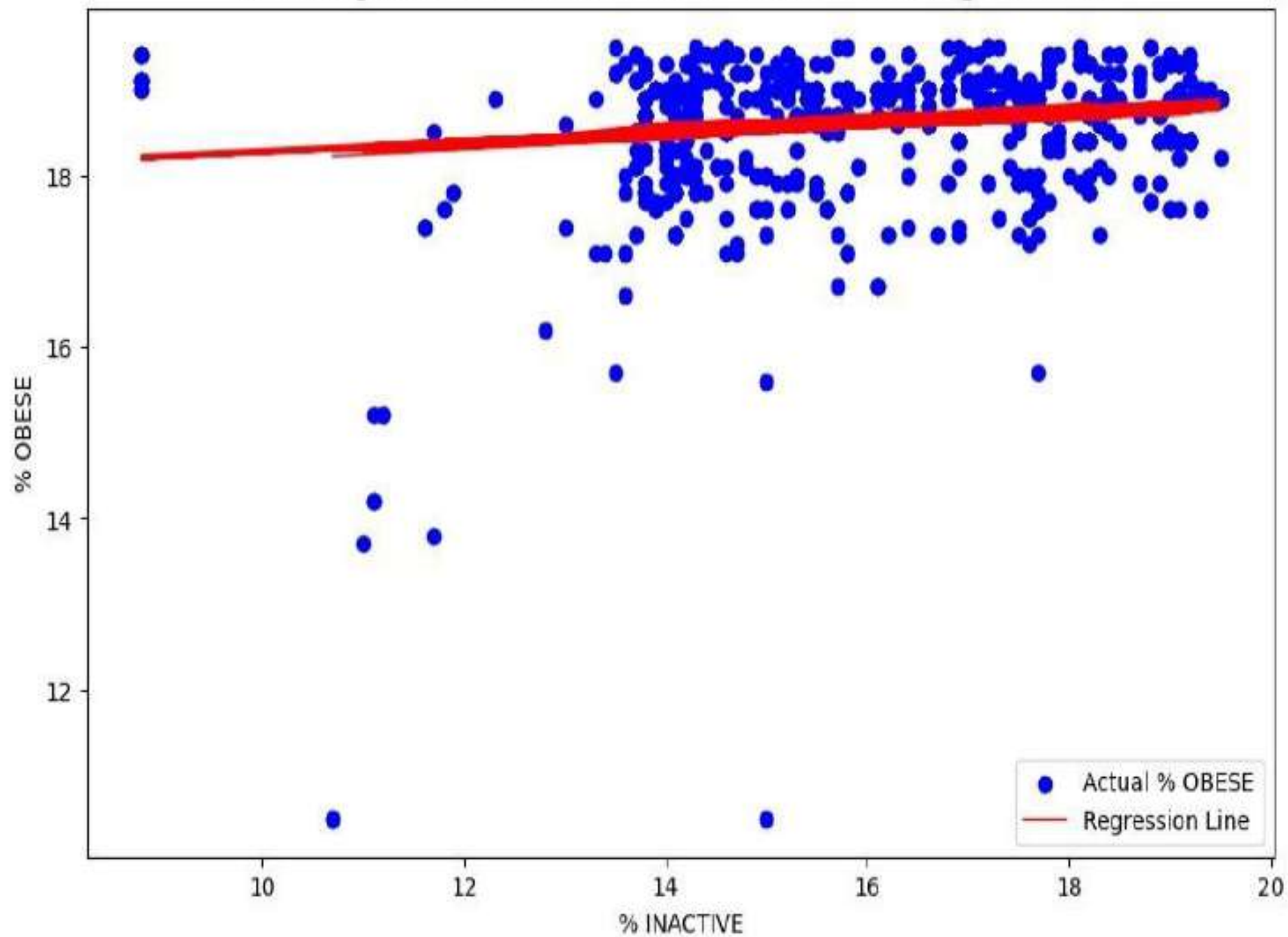
% OBESE

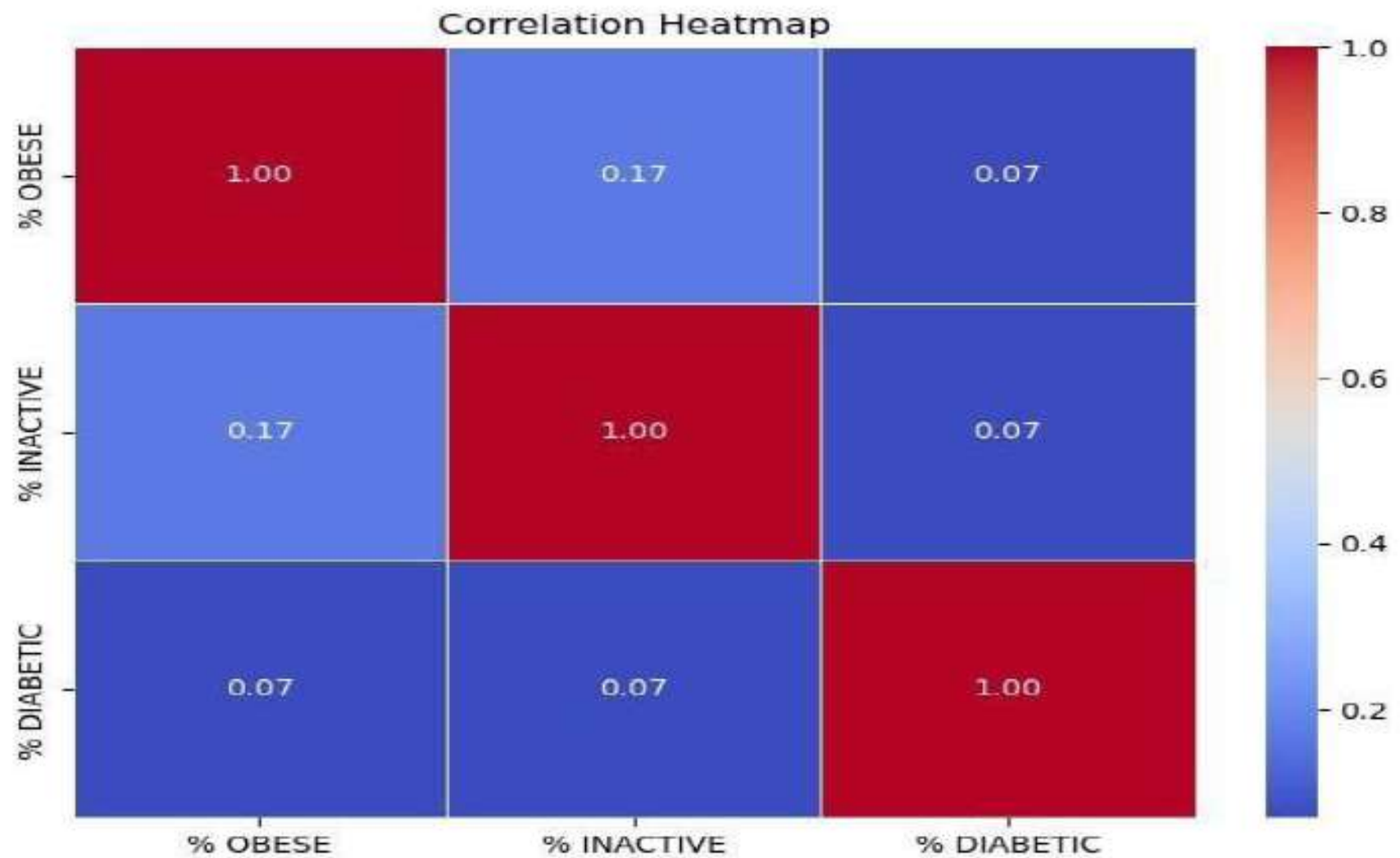% INACTIVE

Figure 2: Linear Regression
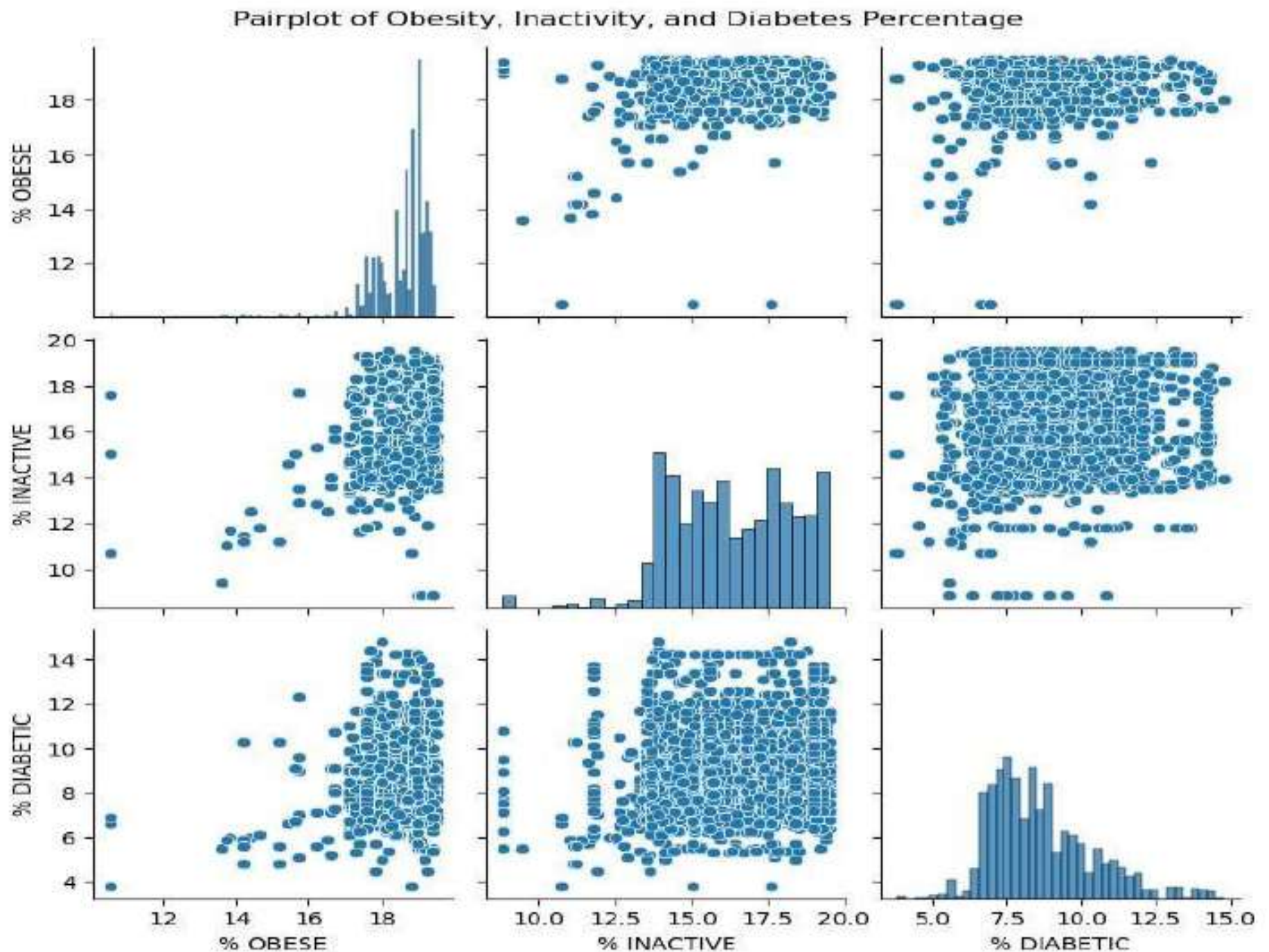
Figure 4: Heat map to show the correlation

Figure 3: Plots to show the distribution of all variables.