I have a dataframe called db\_r with these fields: “territorio”, “perc\_65” (proportion of elderly) and “perc\_ricover” (proportion of admission to hospital attributable to NCDs).

I performed a linear regression with following code

# esegui la regressione lineare

model <- lm(perc\_ricoveri ~ perc\_80, data = db\_r)

# crea la tabella di riepilogo

tbl\_regression <- tbl\_regression(model)

# stampa la tabella

print(tbl\_regression)

Here the results:

Call:

lm(formula = perc\_ricoveri ~ perc\_80, data = db\_r)

Residuals:

Min 1Q Median 3Q Max

-0.031642 -0.010728 -0.000597 0.006595 0.053116

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 0.049088 0.006481 7.575 6.53e-12 \*\*\*

perc\_80 0.285145 0.081367 3.504 0.000633 \*\*\*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.01605 on 127 degrees of freedom

Multiple R-squared: 0.08817, Adjusted R-squared: 0.08099

F-statistic: 12.28 on 1 and 127 DF, p-value: 0.0006327

Can I desume that the proportion of admissions is correlated with proportion of elderly

I perform a multivariable analysis including “reddito\_2019” (Average income) and “istruzione\_bassa” (Low education).

This is the code and the results

model\_multi <- lm(perc\_ricoveri ~ perc\_65 + reddito\_2019 + istruzione\_bassa, data = db\_r)

Call:

lm(formula = perc\_ricoveri ~ perc\_65 + reddito\_2019 + istruzione\_bassa,

data = db\_r)

Residuals:

Min 1Q Median 3Q Max

-0.029163 -0.010032 -0.000463 0.007338 0.053443

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 5.769e-02 4.314e-02 1.337 0.183568

perc\_65 1.525e-01 4.417e-02 3.453 0.000758 \*\*\*

reddito\_2019 -1.192e-06 1.226e-06 -0.972 0.332782

istruzione\_bassa -3.198e-04 3.778e-02 -0.008 0.993261

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.01587 on 125 degrees of freedom

Multiple R-squared: 0.1229, Adjusted R-squared: 0.1019

F-statistic: 5.839 on 3 and 125 DF, p-value: 0.0009132

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Can you interpret these results?

Does it make sense to look at which “territorio” has greater residual with the regression model? Could I desume that in these records the importanc of factor other than elderly are more important?