

Summary of data

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1 Summary

This is a document that outlines the summary of the data.

2 Model parameters

This report and the model has been run according to the following parameters.

| Model | Exposure |
|-----------------|----------|
| Survival models | redmeat |

3 Data summary

A summary of the data, descriptive statistics and the amount of missingness is shown below.

3.1 Descriptive statistics of data

Descriptive summary statistics of data.

```
## Warning in kable_pipe(x = structure(character(0), .Dim = c(0L, 0L), .Dimnames =
## list(: The table should have a header (column names)
```

```
|| || || ||
```

| cohort | variable | mean | perc_5 | perc_50 | perc_95 | std.dev | valid_n | cohort_nmissing | nmissing_perc | |
|----------|--------------|-------|--------|---------|---------|-----------|---------|-----------------|---------------|------|
| study1 | OFFALS | 7.24 | 0.00 | 2.63 | 28.57 | 11.50 | 852 | 867 | 15 | 1.73 |
| study2 | OFFALS | 3.81 | 0.00 | 2.20 | 13.87 | 4.90 | 3239 | 3393 | 154 | 4.54 |
| study3 | OFFALS | 2.56 | 0.00 | 0.00 | 15.30 | 6.82 | 5753 | 5889 | 136 | 2.31 |
| study4 | OFFALS | 1.81 | 0.00 | 0.00 | 7.70 | 3.67 | 2252 | 2324 | 72 | 3.10 |
| study5 | OFFALS | 1.09 | 0.00 | 0.00 | 5.56 | 2.93 | 2229 | 2290 | 61 | 2.66 |
| study7 | OFFALS | 1.49 | 0.00 | 0.83 | 5.53 | 2.64 | 3514 | 3578 | 64 | 1.79 |
| study8 | OFFALS | 1.28 | 0.00 | 0.00 | 5.54 | 5.05 | 5272 | 5401 | 129 | 2.39 |
| study9 | OFFALS | 1.28 | 0.00 | 0.00 | 5.54 | 5.05 | 5272 | 5401 | 129 | 2.39 |
| study1 | POULTRY | 21.32 | 0.00 | 18.27 | 58.93 | 20.76 | 852 | 867 | 15 | 1.73 |
| study2 | POULTRY | 27.11 | 3.37 | 23.05 | 63.65 | 20.18 | 3239 | 3393 | 154 | 4.54 |
| study3 | POULTRY | 37.56 | 2.27 | 31.54 | 91.67 | 28.86 | 5753 | 5889 | 136 | 2.31 |
| study4 | POULTRY | 24.18 | 0.00 | 16.10 | 49.45 | 20.08 | 2252 | 2324 | 72 | 3.10 |
| study5 | POULTRY | 12.67 | 0.00 | 9.06 | 36.99 | 14.36 | 2229 | 2290 | 61 | 2.66 |
| study7 | POULTRY | 13.45 | 1.16 | 9.27 | 39.32 | 13.60 | 3514 | 3578 | 64 | 1.79 |
| study8 | POULTRY | 11.40 | 0.00 | 7.23 | 38.96 | 15.25 | 5272 | 5401 | 129 | 2.39 |
| study9 | POULTRY | 11.40 | 0.00 | 7.23 | 38.96 | 15.25 | 5272 | 5401 | 129 | 2.39 |
| study1 | REDMEAT | 50.63 | 0.00 | 47.27 | 117.93 | 37.15 | 852 | 867 | 15 | 1.73 |
| study2 | REDMEAT | 50.39 | 8.24 | 45.82 | 108.15 | 32.72 | 3239 | 3393 | 154 | 4.54 |
| study3 | REDMEAT | 45.07 | 2.17 | 37.79 | 114.59 | 36.88 | 5753 | 5889 | 136 | 2.31 |
| study4 | REDMEAT | 40.32 | 0.20 | 32.20 | 100.30 | 36.21 | 2252 | 2324 | 72 | 3.10 |
| study5 | REDMEAT | 59.10 | 10.11 | 57.51 | 113.12 | 32.73 | 2229 | 2290 | 61 | 2.66 |
| study7 | REDMEAT | 34.08 | 5.61 | 27.10 | 82.83 | 28.41 | 3514 | 3578 | 64 | 1.79 |
| study8 | REDMEAT | 32.23 | 3.01 | 25.03 | 86.36 | 28.03 | 5272 | 5401 | 129 | 2.39 |
| study9 | REDMEAT | 32.23 | 3.01 | 25.03 | 86.36 | 28.03 | 5272 | 5401 | 129 | 2.39 |
| study1 | REDMEATTOTAL | 14.78 | 0.00 | 106.69 | 210.37 | 61.04 | 867 | 867 | 0 | 0.00 |
| study2 | REDMEATTOTAL | 7.27 | 0.00 | 95.16 | 201.98 | 55.91 | 3393 | 3393 | 0 | 0.00 |
| study3 | REDMEATTOTAL | 26.99 | 0.00 | 113.67 | 245.85 | 68.11 | 5889 | 5889 | 0 | 0.00 |
| study4 | REDMEATTOTAL | 0.34 | 0.00 | 87.21 | 176.69 | 57.67 | 2324 | 2324 | 0 | 0.00 |
| study5 | REDMEATTOTAL | 10.66 | 0.00 | 100.55 | 190.03 | 53.67 | 2290 | 2290 | 0 | 0.00 |
| study7 | REDMEATTOTAL | 20.84 | 0.00 | 101.75 | 238.41 | 68.84 | 3578 | 3578 | 0 | 0.00 |
| study8 | REDMEATTOTAL | 20.83 | 0.00 | 78.28 | 182.43 | 52.23 | 5401 | 5401 | 0 | 0.00 |
| study9 | REDMEATTOTAL | 20.83 | 0.00 | 78.28 | 182.43 | 52.23 | 5401 | 5401 | 0 | 0.00 |
| Combined | OFFALS | 2.06 | 0.00 | 0.43 | 9.33 | 5011.15 | 28383 | 29143 | 760 | 2.61 |
| Combined | POULTRY | 20.16 | 0.99 | 15.39 | 53.78 | 82971.81 | 28383 | 29143 | 760 | 2.61 |
| Combined | REDMEAT | 40.44 | 4.00 | 34.03 | 98.29 | 184488.58 | 28383 | 29143 | 760 | 2.61 |
| Combined | REDMEATTOTAL | 17.89 | 0.00 | 93.59 | 205.37 | 629014.82 | 29143 | 29143 | 0 | 0.00 |

3.2 Data quality and understanding covariates

3.2.1 Missingness of covariates

The amount of missing for each covariate is shown below. The table shows if there are any covariates that are missing for any study.

| variable | study1 | study2 | study3 | study4 | study5 | study7 | study8 | study9 |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|
| REDMEAT | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE |
| OFFALS | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE |
| POULTRY | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE |
| REDMEATTOTAL | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE | TRUE |

3.2.2 Variable types of covariates

This summarizes if the covariates are of the same type or class in each study.

| variable | discrepancy | study1 | study2 | study3 | study4 | study5 | study7 | study8 | study9 |
|-----------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|
| REGION_CH | no | integer | integer | integer | integer | integer | integer | integer | integer |
| BMI_CAT | no | factor | factor | factor | factor | factor | factor | factor | factor |
| CONSUMER | no | factor | factor | factor | factor | factor | factor | factor | factor |
| COV_FISH | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_DAIRY | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_RICE | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_POTATO | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_CEREALFIBRE | no | integer | integer | integer | integer | integer | integer | integer | integer |
| ISOFLAVONES | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| NUTS_SEEDS | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| SOY | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| PBCL | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| TOTAL | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| SMOKING | no | factor | factor | factor | factor | factor | factor | factor | factor |
| ALCOHOL | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| PA | no | factor | factor | factor | factor | factor | factor | factor | factor |
| FAM_DIAB | no | factor | factor | factor | factor | factor | factor | factor | factor |
| WAIST | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| COV_MEAT | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| COV_FRUIT | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| COV_VEG | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| COV_FIBER | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| COV_SUG_BEVS | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| SEX | no | factor | factor | factor | factor | factor | factor | factor | factor |
| BMI | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| EDUCATION | no | factor | factor | factor | factor | factor | factor | factor | factor |
| AGE_BASE | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| E_INTAKE | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| TYPE_DIAB | no | factor | factor | factor | factor | factor | factor | factor | factor |
| PREV_DIAB | no | factor | factor | factor | factor | factor | factor | factor | factor |
| CASE_OBJ | no | factor | factor | factor | factor | factor | factor | factor | factor |
| CASE_OBJ_SELF | no | factor | factor | factor | factor | factor | factor | factor | factor |
| FUP_OBJ | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| FUP_OBJ_SELF | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| COMORBIDITY | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_COFFEE | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_TEA | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_PASTA | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_BREAD | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_EGGS | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_SOUPS | no | integer | integer | integer | integer | integer | integer | integer | integer |

| variable | discrepancy | study1 | study2 | study3 | study4 | study5 | study7 | study8 | study9 |
|---------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|
| COV_HRT | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_SUGAR | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_TEACOFFEE | no | integer | integer | integer | integer | integer | integer | integer | integer |
| COV_CEREALS | no | integer | integer | integer | integer | integer | integer | integer | integer |
| i_status_out_cohort | no | integer | integer | integer | integer | integer | integer | integer | integer |
| REDMEATTOTAL | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| REDMEAT | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| POULTRY | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| PROCMEAT | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |
| OFFALS | no | numeric | numeric | numeric | numeric | numeric | numeric | numeric | numeric |

3.3 Quality control

We outline the number of patients who have been excluded due to the inclusion and exclusion criterion.

3.3.1 Inclusion criterion

```

*   age >= 18 years

*   Number of patients after removing those with age >= 18

##   Aggregating study7 (lengthDS("E_temp2$SEX")) [=====>-----] 67% / 0s

## $'length of E_temp2$SEX in study1'
## [1] 867
##
## $'length of E_temp2$SEX in study2'
## [1] 3393
##
## $'length of E_temp2$SEX in study3'
## [1] 5889
##
## $'length of E_temp2$SEX in study4'
## [1] 2324
##
## $'length of E_temp2$SEX in study5'
## [1] 2290
##
## $'length of E_temp2$SEX in study7'
## [1] 3578
##
## $'length of E_temp2$SEX in study8'
## [1] 5401
##
## $'length of E_temp2$SEX in study9'
## [1] 5401

```

3.3.2 Exclusion criterion

```

* no previous diabetes

```

```

* no type 1 diabetes

* number of patients that remain after removing those with Type 1 diabetes

## Aggregating study7 (lengthDS("E_temp3$SEX")) [=====>-----] 67% / 0s

## $'length of E_temp3$SEX in study1'
## [1] 867
##
## $'length of E_temp3$SEX in study2'
## [1] 3393
##
## $'length of E_temp3$SEX in study3'
## [1] 5889
##
## $'length of E_temp3$SEX in study4'
## [1] 2324
##
## $'length of E_temp3$SEX in study5'
## [1] 2290
##
## $'length of E_temp3$SEX in study7'
## [1] 3578
##
## $'length of E_temp3$SEX in study8'
## [1] 5401
##
## $'length of E_temp3$SEX in study9'
## [1] 5401

```

3.3.3 Exclusion due to energy intake

```

* number of participants removed with very high or very low energy intake

## Aggregating study7 (lengthDS("L2$SEX")) [=====>-----] 67% / 0s

## $'length of L2$SEX in study1'
## [1] 867
##
## $'length of L2$SEX in study2'
## [1] 3393
##
## $'length of L2$SEX in study3'
## [1] 5889
##
## $'length of L2$SEX in study4'
## [1] 2324
##
## $'length of L2$SEX in study5'
## [1] 2290

```

```
##
## $'length of L2$SEX in study7'
## [1] 3578
##
## $'length of L2$SEX in study8'
## [1] 5401
##
## $'length of L2$SEX in study9'
## [1] 5401

## Aggregating study7 (lengthDS("E3$SEX")) [=====>-----] 67% / Os

## $'length of E3$SEX in study1'
## [1] 834
##
## $'length of E3$SEX in study2'
## [1] 3152
##
## $'length of E3$SEX in study3'
## [1] 5698
##
## $'length of E3$SEX in study4'
## [1] 2245
##
## $'length of E3$SEX in study5'
## [1] 2225
##
## $'length of E3$SEX in study7'
## [1] 3471
##
## $'length of E3$SEX in study8'
## [1] 5241
##
## $'length of E3$SEX in study9'
## [1] 5241
```

4 References

- <https://github.com/datashield>
- <http://www.metafor-project.org>
- https://github.com/neelsoumya/datashield_testing_basic/tree/master/gui/survival_models_gui