Supplementary file 1. Risk Analysis POP.1

Risk Analysis

EDxIHC vs. SEX

Confusion Matrix Computed

Confusion Matrix (Fisher’s Exact Test for Count Data) - p-value = 6.55e-84

|       | EDxIHC + | EDxIHC - | Total  | Inc risk * | Odds |
|-------|----------|----------|--------|------------|------|
| SEX+  | 16355    | 15046    | 31401  | 52.1       | 1.09 |
| SEX-  | 20869    | 14163    | 35032  | 59.6       | 1.47 |
| Total | 37224    | 29209    | 66433  | 56.0       | 1.27 |

Risk-Analysis Results

X2 test statistic - p-value: 0

| dati          | Estimate | 95%CI + | 95%CI - |
|---------------|----------|---------|---------|
| Risk Ratio    | 0.874    | 0.862   | 0.886   |
| Odds Ratio    | 0.738    | 0.715   | 0.761   |
| Attr.Risk     | -7.49    | -8.24   | -6.73   |
| Pop.Attr.Risk | -3.54    | -4.18   | -2.9    |
| Attr.Fract.Risk | -0.144   | -0.159  | -0.128  |
| Pop.Attr.Fract.Risk | -0.063   | -0.07   | -0.057  |
EDxIHC vs. ASS_FAM

ASS_FAM = Presence of a non-family caregiver

Confusion Matrix Computed

Confusion Matrix (Fisher's Exact Test for Count Data) - p-value = 5.44e-06

|         | EDxIHC+ | EDxIHC- | Total | Inc risk * | Odds |
|---------|---------|---------|-------|------------|------|
| ASS_FAM+ | 2720    | 1871    | 4591  | 59.2       | 1.45 |
| ASS_FAM- | 34504   | 27338   | 61842 | 55.8       | 1.26 |
| Total   | 37224   | 29209   | 66433 | 56.0       | 1.27 |

Risk-Analysis Results

X2 test statistic - p-value: 0

| dati       | Estimate | 95%CI + | 95%CI - |
|------------|----------|---------|---------|
| Risk Ratio | 1.06     | 1.04    | 1.09    |
| Odds Ratio | 1.15     | 1.08    | 1.22    |
**Risk Analysis**

**AGE vs. EDxIHC**

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VAL-GROUP Confusion Matrix

Fisher's Exact Test for Count Data, p: 9.76e-20

| RR 95%-CI | [1.04; 1.09] |

| Study | RISK ANALYSIS | RR 95%-CI |
| --- | --- | --- |
| PSXSIAD VS. ASS_FAM | 1.06 | |

| EDxIHC 1 | EDxIHC 0 | IR% |
| --- | --- | --- |
| Age 19-65 | 6840 | 7187 | 0.488 |
| Ref. <=18 | 769 | 467 | 0.622 |
### Fisher’s Exact Test for Count Data, p: 4.75e-24
RR: 0.763665594855305

|        | EDxIHC 1 | EDxIHC 0 | IR% |
|--------|----------|----------|-----|
| Age 66-80 | 10805    | 11952    | 0.475 |
| Ref. <=18   | 769      | 467      | 0.622 |

### Fisher’s Exact Test for Count Data, p: 3.97e-50
RR: 0.65112540192926

|        | EDxIHC 1 | EDxIHC 0 | IR% |
|--------|----------|----------|-----|
| Age 81-90 | 8778     | 12878    | 0.405 |
| Ref. <=18   | 769      | 467      | 0.622 |

### Fisher’s Exact Test for Count Data, p: 3.70e-98
RR: 0.487138263665595

|        | EDxIHC 1 | EDxIHC 0 | IR% |
|--------|----------|----------|-----|
| Age 91-100 | 1979     | 4552     | 0.303 |
| Ref. <=18   | 769      | 467      | 0.622 |

### Fisher’s Exact Test for Count Data, p: 7.83e-38
RR: 0.270096463022508

|        | EDxIHC 1 | EDxIHC 0 | IR% |
|--------|----------|----------|-----|
| Age >100   | 38       | 188      | 0.168 |
| Ref. <=18   | 769      | 467      | 0.622 |

MULTI_GROUP Confusion Matrix
|       | EDxIHC+ | EDxIHC - | Total  | Inc risk * | Odds  |
|-------|---------|----------|--------|------------|-------|
| Age+  | 28440   | 36757    | 65197  | 43.6       | 0.774 |
| Age-  | 3845    | 2335     | 6180   | 62.2       | 1.647 |
| Total | 32285   | 39092    | 71377  | 45.2       | 0.826 |

Risk-Analysis Results

X2 test statistic - p-value: 0

| dati          | est   | lower  | upper  |
|---------------|-------|--------|--------|
| Risk Ratio    | 0.659 | 0.643  | 0.676  |
| Odds Ratio    | 0.422 | 0.398  | 0.448  |
| Attr.Risk     | -21.2 | -27    | -15.3  |
| Pop.Attr.Risk | -17   | -18.2  | -15.7  |
| Attr.Fract.Risk | -0.426 | -0.457 | -0.396 |
| Pop.Attr.Fract.Risk | -0.376 | -0.391 | -0.359 |
FAMILY MEMBERS vs. EDxIHC

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VAL-GROUP Confusion Matrix

|          | EDxIHC 1 | EDxIHC 0 | IR%  |
|----------|----------|----------|------|
| Family members | 5182      | 5867      | 0.469 |
| 1_pers_    | 5182      | 5867      | 0.469 |

Fisher’s Exact Test for Count Data, p: 7.58e-16
RR: 1.0983606557377
| Family members | EDxIHC | EDxIHC | IR% |
|----------------|--------|--------|-----|
| 2_pers_        | 1695   | 1822   | 0.482 |
| 3_pers_        | 634    | 588    | 0.519 |
| 4_pers_        | 189    | 161    | 0.54  |
|                | EDxIHC | EDxIHC | IR% |
|----------------|--------|--------|-----|
| Ref. 0 pers.   | 21361  | 28679  | 0.427 |

Fisher's Exact Test for Count Data, \( p: 1.18e-06 \)
RR:1.35831381733021

|                | EDxIHC | EDxIHC | IR% |
|----------------|--------|--------|-----|
| Family members | 148    | 107    | 0.58 |
| 4+pers         |        |        |     |

|                | EDxIHC | EDxIHC | IR% |
|----------------|--------|--------|-----|
| Ref. 0 pers.   | 21361  | 28679  | 0.427 |

MULTI_GROUP Confusion Matrix

|                | EDxIHC | EDxIHC | Total | Inc risk * | Odds |
|----------------|--------|--------|-------|------------|------|
| Family members | 7848   | 8545   | 16393 | 47.9       | 0.918|
| Family members | 106805 | 143395 | 250200| 42.7       | 0.745|
| Total          | 114653 | 151940 | 266593| 43.0       | 0.755|

Risk-Analysis Results

X2 test statistic - \( p-value: 0 \)

|         | dati | est | lower | upper |
|---------|------|-----|-------|-------|
| Risk Ratio | 1.12 | 1.1 | 1.14  |       |
| Odds Ratio | 1.24 | 1.2 | 1.28  |       |
|                  | dati | est  | lower | upper |
|------------------|------|------|-------|-------|
| Attr.Risk        | 5.31 | 1.71 | 8.9   |       |
| Pop.Attr.Risk    | 0.319| 0.049| 0.589 |       |
| Attr.Fract.Risk  | 0.108| 0.093| 0.123 |       |
| Pop.Attr.Fract.Risk | 0.007| 0.007| 0.008 |       |

**Study**

- (1_pers_)
- (2_pers_)
- (3_pers_)
- (4_pers_)
- (4+_pers_)

**RISK ANALYSIS**

| Study | RR 95%-CI |
|-------|-----------|
|       |           |
| (1_pers_) | 1.10 [1.07; 1.12] |
| (2_pers_) | 1.13 [1.09; 1.17] |
| (3_pers_) | 1.22 [1.16; 1.28] |
| (4_pers_) | 1.26 [1.15; 1.39] |
| (4+_pers_) | 1.36 [1.22; 1.51] |

**Fixed effect model**

\[ \chi^2 = 87\%, \ \chi^2 = 0.0036, \ p < 0.01 \]

**PAT_PREV vs. EDxIHC**

**PAT_PREV** = Prevalent disorder at IHC enrolment

Show/Hide Details
### VAL-GROUP Confusion Matrix

**Fisher’s Exact Test for Count Data, p: **4.90e-04  
**RR:0.954635108481262**

|       | EDxIHC 1 | EDxIHC 0 | IR%  |
|-------|----------|----------|------|
| PAT_PREV Altro | 4190 | 4475 | 0.484 |
| Ref. Neoplasm | 8595 | 8371 | 0.507 |

**Fisher’s Exact Test for Count Data, p: **7.05e-18  
**RR:0.891518737672584**

|       | EDxIHC 1 | EDxIHC 0 D 0 | IR%  |
|-------|----------|--------------|------|
| PAT_PREV Circulatory | 4483 | 5431 | 0.452 |
| Ref. Neoplasm | 8595 | 8371 | 0.507 |

**Fisher’s Exact Test for Count Data, p: **2.07e-26  
**RR:0.812623274161736**

|       | EDxIHC 1 | EDxIHC 0 | IR%  |
|-------|----------|----------|------|
| PAT_PREV Endocrine | 1610 | 2294 | 0.412 |
| Ref. Neoplasm | 8595 | 8371 | 0.507 |

**Fisher’s Exact Test for Count Data, p: **1.66e-69  
**RR:0.654832347140039**
|               | EDxIHC | EDxIHC | IR%  |
|---------------|--------|--------|------|
| **EDxIHC**    | 1      | 0      |      |
| **PAT_PREV Mental** | 965    | 1945   | 0.332|
| **Ref. Neoplasm** | 8595   | 8371   | 0.507|

Fisher’s Exact Test for Count Data, p: 7.17e-10
RR: 0.871794871794872

|               | EDxIHC | EDxIHC | IR%  |
|---------------|--------|--------|------|
| **EDxIHC**    | 1      | 0      |      |
| **PAT_PREV Missing** | 1174  | 1481   | 0.442|
| **Ref. Neoplasm** | 8595   | 8371   | 0.507|

Fisher’s Exact Test for Count Data, p: 7.70e-51
RR: 0.678500986193294

|               | EDxIHC | EDxIHC | IR%  |
|---------------|--------|--------|------|
| **EDxIHC**    | 1      | 0      |      |
| **PAT_PREV MuscoloSkeletal** | 819    | 1563   | 0.344|
| **Ref. Neoplasm** | 8595   | 8371   | 0.507|

Fisher’s Exact Test for Count Data, p: 4.18e-21
RR: 0.867850098619329

|               | EDxIHC | EDxIHC | IR%  |
|---------------|--------|--------|------|
| **EDxIHC**    | 1      | 0      |      |
| **PAT_PREV Nervous** | 3160  | 4017   | 0.44  |
|             | EDxIHC | EDxIHC | IR% |
|-------------|--------|--------|-----|
| **Ref. Neoplasm** | 8595   | 8371   | 0.507 |
| **Fisher’s Exact Test for Count Data, p: 2.86e-47** |        |        |      |
| **RR:** | 0.727810650887574 |
| **EDxIHC** | **EDxIHC** | **IR%** |
| **1**      | **0**   |        |      |
| **PAT_PREV Respiratory** | 1191   | 2039   | 0.369 |
| **Ref. Neoplasm** | 8595   | 8371   | 0.507 |
| **Fisher’s Exact Test for Count Data, p: 1.49e-28** |        |        |      |
| **RR:** | 0.788954635108481 |
| **EDxIHC** | **EDxIHC** | **IR%** |
| **1**      | **0**   |        |      |
| **PAT_PREV Skin** | 1270   | 1907   | 0.4 |
| **Ref. Neoplasm** | 8595   | 8371   | 0.507 |
| **Fisher’s Exact Test for Count Data, p: 1.34e-128** |        |        |      |
| **RR:** | 0.633136094674556 |
| **EDxIHC** | **EDxIHC** | **IR%** |
| **1**      | **0**   |        |      |
| **PAT_PREV Trauma** | 1752   | 3701   | 0.321 |
| **Ref. Neoplasm** | 8595   | 8371   | 0.507 |

**MULTI_GROUP Confusion Matrix**
|                    | EDxIHC + | EDxIHC - | Total  | Inc risk * | Odds |
|--------------------|----------|----------|--------|------------|------|
| PAT_PREV+          | 20614    | 28853    | 49467  | 41.7       | 0.714|
| PAT_PREV-          | 85950    | 83710    | 169660 | 50.7       | 1.027|
| Total              | 106564   | 112563   | 219127 | 48.6       | 0.947|

Risk-Analysis Results

X2 test statistic - p-value: 0

| dati               | est  | lower | upper |
|--------------------|------|-------|-------|
| Risk Ratio         | 0.814| 0.804 | 0.823 |
| Odds Ratio         | 0.683| 0.669 | 0.697 |
| Attr.Risk          | -9.44| -10.2 | -8.65 |
| Pop.Attr.Risk      | -2.03| -2.35 | -1.71 |
| Attr.Fract.Risk    | -0.216| -0.23 | -0.202|
| Pop.Attr.Fract.Risk| -0.042| -0.042| -0.041|
DURATION OF IHC EVENT vs. EDxIHC

GA= Days

Show/Hide Details

VAL-GROUP Confusion Matrix

Fisher’s Exact Test for Count Data, p: 0.00e+00
RR:1.72435897435897
### EDxIHC 1  EDxIHC 0  IR%

| GA_101-200 | 6078 | 5228 | 0.538 |
|-------------|------|------|-------|
| Ref. GA.<100 | 11929 | 26286 | 0.312 |

Fisher’s Exact Test for Count Data, \( p: 0.00e+00 \)
RR:2.06410256410256

### EDxIHC 1  EDxIHC 0  IR%

| GA_201-300 | 3538 | 1960 | 0.644 |
|-------------|------|------|-------|
| Ref. GA.<100 | 11929 | 26286 | 0.312 |

Fisher’s Exact Test for Count Data, \( p: 0.00e+00 \)
RR:2.0224358974359

### EDxIHC 1  EDxIHC 0  IR%

| GA_301-400 | 5256 | 3072 | 0.631 |
|-------------|------|------|-------|
| Ref. GA.<100 | 11929 | 26286 | 0.312 |

Fisher’s Exact Test for Count Data, \( p: 0.00e+00 \)
RR:2.5

### EDxIHC 1  EDxIHC 0  IR%

| GA_>400 | 2408 | 678 | 0.78 |
|---------|------|-----|-----|
| Ref. GA.<100 | 11929 | 26286 | 0.312 |

### MULTI_GROUP Confusion Matrix

| EDxIHC + | EDxIHC - | Total | Inc risk * | Odds |
|----------|----------|-------|------------|------|
| GA+      | 17280    | 10938 | 28218      | 61.2 | 1.580 |
|        | EDxIHC+ | EDxIHC- | Total  | Inc risk * | Odds  |
|--------|---------|---------|--------|------------|-------|
| GA-    | 47716   | 105144  | 152860 | 31.2       | 0.454 |
| Total  | 64996   | 116082  | 181078 | 35.9       | 0.560 |

Risk-Analysis Results

X2 test statistic - p-value: 0

| dati              | est | lower | upper |
|-------------------|-----|-------|-------|
| Risk Ratio        | 1.98| 1.95  | 2     |
| Odds Ratio        | 3.55| 3.45  | 3.64  |
| Attr.Risk         | 30.5| 28.6  | 32.4  |
| Pop.Attr.Risk     | 4.68| 4.36  | 5     |
| Attr.Fract.Risk   | 0.49| 0.484 | 0.496 |
| Pop.Attr.Fract.Risk| 0.13| 0.129 | 0.131 |
PROPONENT of referral to IHC vs. EDxIHC

PROP_PA_02+06+08+09= Residential facilities/other settings

PROP_PA.01= General practitioner

PROP_PA_03-04-05-07= Hospital

Show/Hide Details

VAL-GROUP Confusion Matrix

Fisher’s Exact Test for Count Data, p: 5.97e-06
RR: 1.05827505827506
| PROP_ PA_02+06+08+09 | EDxIHC 1 | EDxIHC 0 | IR%  |
|---------------------|----------|----------|------|
| Ref. PA.01          | 19749    | 26241    | 0.429|

**Fisher’s Exact Test for Count Data, p: 9.18e-15**
RR:1.1002331002331

| PROP  PA_03-04-05-07 | EDxIHC 1 | EDxIHC 0 | IR%  |
|----------------------|----------|----------|------|
| Ref. PA.01           | 19749    | 26241    | 0.429|

**MULTI_GROUP Confusion Matrix**

|         | EDxIHC + | EDxIHC - | Total | Inc risk * | Odds |
|---------|----------|----------|-------|------------|------|
| PROP+   | 9460     | 10983    | 20443 | 46.3       | 0.861|
| PROP-   | 39498    | 52482    | 91980 | 42.9       | 0.753|
| Total   | 48958    | 63465    | 112423| 43.5       | 0.771|

**Risk-Analysis Results**

X2 test statistic - **p-value: 0**
|               | est | lower | upper |
|---------------|-----|-------|-------|
| **Risk Ratio**| 1.08| 1.06  | 1.1   |
| **Odds Ratio**| 1.15| 1.11  | 1.18  |
| **Attr.Risk** | 3.33| 1.83  | 4.84  |
| **Pop.Attr.Risk** | 0.606| 0.174 | 1.04  |
| **Attr.Fract.Risk** | 0.072| 0.056 | 0.087 |
| **Pop.Attr.Fract.Risk** | 0.014| 0.013 | 0.015 |

**Study**

- (PA_02+06+08+09)
- (PA_03-04-05-07)

**RISK ANALYSIS**

Fixed effect model

\[ \chi^2 = 81\%, \phi^2 = 0.0006; \rho = 0.02 \]

| RR 95%-CI |
|-----------|
| 1.06 [1.03; 1.08] |
| 1.10 [1.07; 1.12] |
| 1.08 [1.06; 1.10] |