

## Analyses before and after a debut consultation for back pain or depression in a Swedish county. Prevalence, co-morbidity, health care consumption and costs

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## Background

- Longstanding pain including widespread pain is associated with significantly increased prevalence's of other symptoms such as depression, catastrophizing, low self-efficacy and anxiety as well as mental disorders
- It is reasonable to suspect that such co-morbidity contributes to the disability, the increased use of health care and sick leave.
- Still little known about the change over time and what comes first, pain or mental disorders

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## Aim

- To describe co-morbidity, health care consumption and costs before and after individuals in a general population received a **debut diagnosis of either back pain or depression** when consulting health care.

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## A longitudinal register study in the County of Östergötland



- The county of Östergötland represents about 5 % of the Swedish population and is representative of the total Swedish population in terms of age distribution and socio-economy

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## Method and datacollection

- **Care data warehouse**
  - includes health care consumption on an individual patient level
  - All health care contacts, profession of the caregiver, where ,type of contact, when, ICD 10 diagnosis,
  - Cost per patient is calculated
- **National drug registry**
  - Includes the drugs collected by the patient ; type, daily dosages,
  - Cost per patient is calculated
- **National sick leave registry**
  - Sick leave: spells, number of days, part time or full time

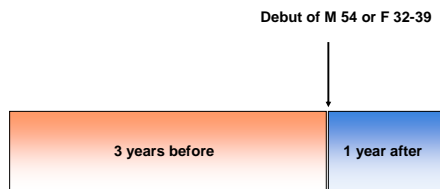
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## Inclusion

- All individuals seeking health care and diagnosed in 2006 with back pain (ICD10 M54) or depression (ICD 110 F32-F39) for **the first time within a 3-year period**

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## Method



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## Results

- During 2006
  - 6,869 individuals were diagnosed with back pain (M 54)
    - 2 % of the total population
  - 3,645 individuals were diagnosed with depression (F 32 -39)
    - 0.9 % of the total population

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## Comparison by age and gender

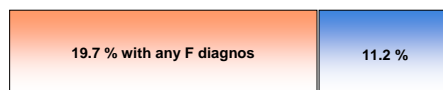
- In the age groups 18-34 a higher proportion had debut of depression
- In the age groups 55-74 a higher proportion had debut of back pain
- There was a higher proportion of women in the group with a debut of depression (65% vs 58%)

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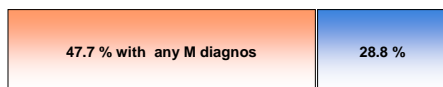
## Co-morbidity in terms of M and F diagnosis

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## Debut of back pain n= 6869



## Debut of depression n= 3645



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## Debut of back pain n= 6869



## Debut of depression n= 3645



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## Co-morbidity in terms of ACG Case mix system including all diagnosis

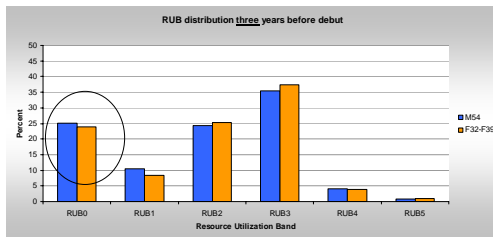
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## Classification into Resource Utilization Bands RUB

- ACG® Case-Mix System is based on
  - Likely persistence of the condition
  - Severity of the condition
  - Aetiology
  - Diagnostic certainty
  - Need for speciality care
- Classification of patients into Resource Utilization Bands (RUB) 0 (=no diagnosis) to 5 (=very high resource utilization band)

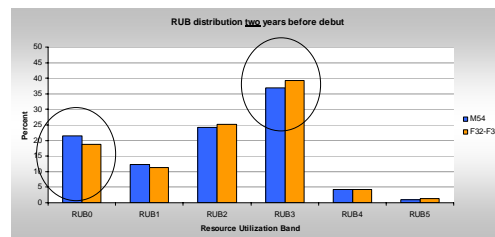
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## RUB distribution three years before debut



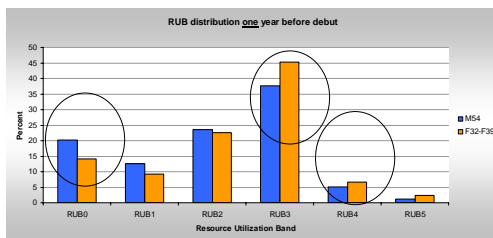
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## RUB distribution two years before debut



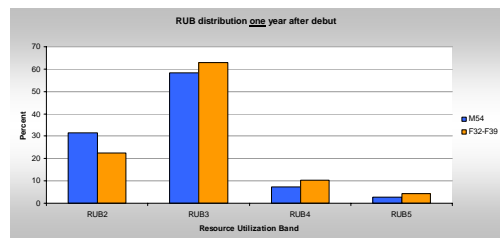
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## RUB distribution one year before debut



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## RUB distribution one year after debut



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## RUB classification

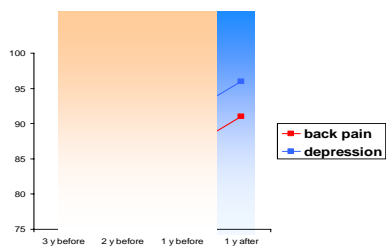
- Both groups change towards worse RUB classification bands over time
- The group with a debut of depression had a higher RUB classification than those with a debut of back pain One year before and one year after

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## Health care consumption and costs

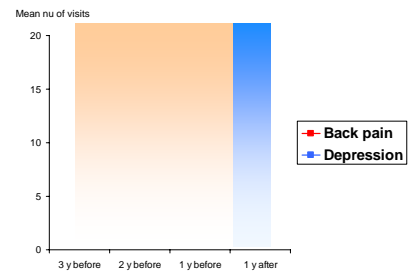
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## Proportion of individuals with health care contacts



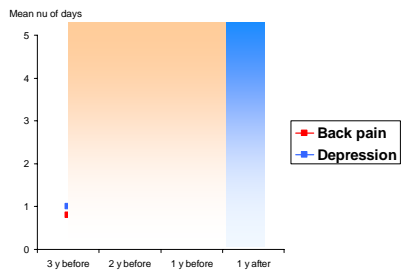
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## Mean number of health care contacts



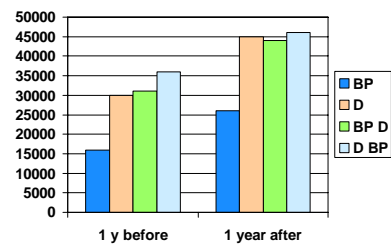
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## Mean number of days in hospital



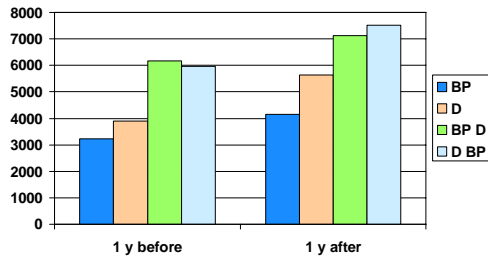
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## Health care cost per patient the year before and after debut



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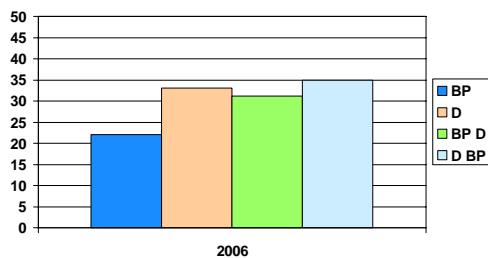
### Cost of drugs per patient the year before and after debut



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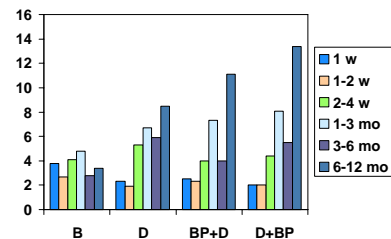
### Sick leave 2006

### Proportion of individuals on sick leave



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### Short- and long term sickleave in groups with or without co-morbidity



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### Conclusion

- Almost half of the patients with a debut of depression had previously been diagnosed with MSD and 18 % was diagnosed with back pain M54
- Back pain or MSD preceding depression is more common than depression or mental disorder preceding back pain
- Patients with debut of depression have higher RUB classification and costs compared to patients with debut of BP
- In both groups the health care consumption increases over time with an faster increase among those with a debut of a depression diagnosis
- Costs were higher in all groups with a depression diagnosis (depression, depression with prior back pain, back pain with prior depression) compared to back pain alone

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### Conclusions

- It seems important to pay attention to the presence of symptoms of depression or mental disorder in patients with back pain in an early stage
- Co-morbidity influences the prognosis for health care consumption and costs.
- Further analysis of the use of the ACG system is ongoing
- Analysis over longer periods is planned

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