Background
The world population is aging and this applies in particular to developed countries (Mathers 2006). In Germany there is a longstanding debate on how to respond to this development in general but a discussion on the impact of end-of-life care is still missing.

Aim
To analyse future population and mortality projections in Germany until 2030/2050 and to discuss the impact on end-of-life care.

Method
Secondary analysis of official national statistics data regarding population, births, deaths, cause of death and place of death. Assumptions for future projections of population, births and deaths are: birth rate 1.4 children/wo-man, life expectancy at birth in 2050 +7.6/6.5 years for boys/girls compared to 2007, migration balance +100,000 persons per year. Future scenarios for hospital deaths were modeled using the mean% of hospital deaths in the most recent 10 years to estimate future numbers until 2050.

Results
Our analysis predicted the following developments until 2050 in Germany:

- **Population** is decreasing and aging: -13.5 Million in 2050 compared to present (-16%) (Figure 1);
- **Number of deaths** are increasing notably since 2006: about 1,081,000 per year in 2050 (+30%) (Figure 2) – Main reason: baby-boom-generations are growing old;
- **Age when dying**: in 2050, 87.4% of the dying will be 75 years and older (at present: 62.4%) (Table 1);
- **Leading cause of death**: chronic heart failure, but COPD as cause of death is increasing rapidly;
- **Most common place of death**: hospital deaths (1995-2005: mean 46.5%, range 44.9-47.6%) – taking this forward, the number of hospital deaths will increase from 395,169 in 2007 to 506,000 in 2050.

Impact on end-of-life care (eolc) in Germany

1. **Expansion of eolc in all sectors of health care system**
   - a) home: eolc at home for all who wish to die at home
   - b) hospital / nursing home: expansion of palliative care services in hospitals and nursing homes

2. **Expansion of eolc in education & training**
   - a) general palliative care: all students and general practitioners
   - b) specialist palliative care: expansion of training, services and research

3. **Eolc for all with eolc needs**
   - a) non-malignant diseases: CHF, COPD, stroke
   - b) focus on the elderly

4. **The upcoming national strategy for high quality and integrative end-of-life care in Germany (charta) needs to focus on the future**

Conclusion
The number of deaths is already increasing in Germany. In the future, the dying will be older and the population (and potential carers) will be decrease.

The future development of eolc will be a key challenge for the German society. There is a need to extend eolc to older patients and those with non-malignant disease. New approaches, training, services and research have to be developed to provide more appropriate care to meet the needs of the dying and their carers.

**Table 1 – Situation in Germany at Present (2007) and in Future (2030/2050)**

<table>
<thead>
<tr>
<th>Present (Data from 2007)</th>
<th>Future (Data for 2030 / 2050)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>82.2 Million</td>
</tr>
<tr>
<td>Number of deaths/year</td>
<td>827,155</td>
</tr>
<tr>
<td>Death rate</td>
<td>10.1</td>
</tr>
<tr>
<td>Deaths &gt; 75 years</td>
<td>62.4%</td>
</tr>
<tr>
<td>Leading cause of death</td>
<td>Non-malignant diseases (69%)</td>
</tr>
<tr>
<td>Leading cause of death, malignant</td>
<td>1. Lung cancer (5%)</td>
</tr>
<tr>
<td>Leading cause of death, non-malignant</td>
<td>1. Chronic heart failure (CHF, 17%)</td>
</tr>
<tr>
<td>Age of patient in care of palliative services</td>
<td>67.7 years</td>
</tr>
<tr>
<td>Place of death</td>
<td>47.8% hospital deaths (395,169)</td>
</tr>
</tbody>
</table>

**Literature**
(1) Federal Statistik Office Germany (Statistisches Bundesamt), www.destatis.de, 2009

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