This is a data brief from The Older Persons and Informal Caregiver Survey Minimum Dataset (TOPICS-MDS). TOPICS-MDS is an excellent resource on the health and wellbeing of a large number of frail older persons and their caregivers across the Netherlands, collected within the National Care for the Elderly Programme (NPO). TOPICS-MDS data briefs provide updates on TOPICS-related research findings to health professionals, policy makers and other relevant agencies, thereby contributing to the evidence base for health services programmes.

Introduction

Aging is a major contributing risk factor for cancer. In the Netherlands, more than 83,000 people are diagnosed with cancer annually. Some 70% of persons with cancer are older than 60 years; approximately 40% are older than 70 years. Since the Dutch population is aging, cancer incidence is expected to increase in the future. Moreover, cancer care is expected to grow more complex as a greater proportion of the population faces increased comorbidity, functional limitations and frailty.

However, to date, little attention has been given to cancer care in older persons. This data brief provides insight into how researchers and clinicians can use TOPICS-MDS as a marker of wellbeing and general health status in an older population with cancer.

Between 2003 and 2013, more than 460,000 cases of cancer were recorded. Approximately 70% were diagnosed in persons 60 years of age or older. (10-year prevalence, NKR)

TOPICS-MDS is comprised of baseline and follow-up data from primary care practices, the general population, hospitals, retirement communities and nursing homes. More information on TOPICS-MDS, is available at www.topics-mds.eu. Currently, TOPICS-MDS contains information on the health and wellbeing of more than 30,000 Dutch older persons (≥60 years). Among these persons, 10.9% (n=3,311, 51.9% women) reported having had cancer in the past 12 months. Figure 1 presents the distribution of older persons with self-reported cancer in TOPICS-MDS across the 12 Dutch provinces relative to the total Dutch population older than 60 years for each province (CBS, Jan 2014).

Figure 1. Older Dutch population (CBS, Jan 2014) versus older persons in TOPICS-MDS with and without self-reported cancer.

TOPICS-MDS 60+ participants

- No cancer
- Cancer

**Figure 1. Older Dutch population (CBS, Jan 2014) versus older persons in TOPICS-MDS with and without self-reported cancer.**
TOPICS-MDS contains instruments validated for use in older populations, and information has been collected on demographics, morbidity, functional limitations, mental health, social functioning, quality of life, and health service utilisation, and allows for the construction of a validated frailty index, TOPICS-FI (Table 1).

**Table 1. TOPICS-MDS instruments (version1; 2013)**

<table>
<thead>
<tr>
<th>Domains</th>
<th>Instruments/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Older persons N&gt;32,000</strong></td>
<td></td>
</tr>
<tr>
<td>Demographics</td>
<td>Sex; Age; Origin; Marital status; Domicile; Education; Socioeconomic status</td>
</tr>
<tr>
<td>Multimorbidity</td>
<td>17 chronic conditions from the Dutch &quot;Lokale en Nationale Monitor Gezondheid&quot;</td>
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<tr>
<td>Functional limitations</td>
<td>Katz (I)ADL</td>
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<td>Psychological wellbeing</td>
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<td>Social functioning</td>
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<td>Health-related quality of life</td>
<td>EQ-5D+C</td>
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<tr>
<td>Services utilization</td>
<td>Hospital admissions and length of stay; Urgent care visits</td>
</tr>
<tr>
<td>Frailty</td>
<td>TOPICS-FI; 23 and 45 items</td>
</tr>
</tbody>
</table>

**Care outcomes**

| Quality of life              | Cantril’s Self Anchoring Ladder                                                   |
| Care cost                   | Services utilization based care cost                                               |

**What can TOPICS-MDS contribute to understanding the care of older persons with cancer?**

**Cancer and frailty**

Frailty refers to a state of increased vulnerability to adverse health outcomes in older persons. One method to assess frailty is to measure the accumulation of physical, psychological and/or social health problems. Assessment of frailty may be of benefit in older patients with cancer since it may serve as a marker for vulnerability to other adverse health outcomes. TOPICS-MDS frailty is assessed by using a validated Frailty Index (TOPICS-FI) based on multiple domains (see TOPICS-MDS Data Brief no. 2 for more information). Using the 45-item TOPICS-FI, men and women with cancer reported consistently higher frailty index scores across all ages than men and women without cancer (Figure 2).

**Cancer and multimorbidity**

Older persons with cancer are more likely to have co-existing medical conditions which may influence cancer prognosis and mortality outcomes. TOPICS-MDS data contains 17 self-reported chronic conditions. In TOPICS-MDS, 7.6% (n=2,324) of the older persons reported no chronic condition. TOPICS-MDS data demonstrates that older persons with cancer were more likely to have three or more chronic conditions in addition to cancer compared to older persons without cancer (Figure 3).

**Cancer and multidimensional assessment**

Disconcertingly, despite being more likely to be multimorbid, the majority of older persons with cancer frequently do not receive integrated health care. TOPICS-MDS allows for the evaluation of multimorbidity, functional limitations, health-related quality of life, psychological and social functioning. TOPICS-MDS
can thus be used to study the impact of these domains on the burden of cancer in the older population. For instance, Figure 4 shows that older persons with cancer overall have more problems across these domains than those without cancer. The differences in the TOPICS frailty index scores may be best explained by the higher number of chronic conditions (expressed in the domain Multi-morbidity) in this population.

**Questions that could be answered using TOPICS-MDS**

- What are the multiple adverse conditions and functional limitations in older persons, due to difference in cancer status?
- What are (additional) health care costs associated with having cancer?
- What is the prospective utility of TOPICS-FI in stratifying sub-clinical frail groups of geriatric cancer patients?
- What is the association of TOPICS-FI and QoL with mortality in geriatric cancer patients?
- Is there socioeconomic disparity in geriatric cancer care?
- What is the perceived burden of informal caregivers for geriatric cancer patients?

**Cancer, frailty and overall quality of life**

Having a measure for frailty will be able to ensure that frail older patients with cancer can be identified, and it may have important prognostic value for overall health status and survival. Based on TOPICS-FI tertiles, higher frailty index scores were associated with worse quality of life in older persons with and without cancer. TOPICS-FI may be beneficial when evaluating quality of life in older persons with cancer.

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