The future need for palliative care: with a London focus

Irene J Higginson   FFPHM FRCP FMedSci
Director, Cicely Saunders Institute of Palliative Care, Policy & Rehabilitation, King’s College London

www.csi.kcl.ac.uk   www.pos-pal.org
@ij_higginson   @csi_kcl
Outline

- Population based projections
- Projections for palliative care
- Projections for where people are cared for
- London data
- Health and social care changes?
- Discussion?
Future numbers of deaths is increasing

Projected number of deaths in 2030

Projected number of deaths in 2040

Actual number of deaths 2014

25% increase in annual deaths by 2040 in England and Wales. 54% will be ≥ 85 years

**England and Wales data: Deaths and Palliative Care needs 2006 to 2040**

- **All deaths in England and Wales (ONS data and official mortality projections)**
- **Number of people who die estimated to need palliative care 2006 – 2014**
- **Projected palliative care need, the proportion of people who die that need palliative care remains as 2014**
- **Projected Palliative care need - palliative care need continues to rise as per the change from 2006 – 2014**
- **Projected Palliative care need - palliative care need continues to rise as per the change from 2011 – 2014**

**Source:** Etkind et al. *BMC Medicine* (2017) 15:102
Future cancer in England & Wales, projected deaths to 2040

Cancer deaths increased from 2006 - 135,635
2014 - 143,638

Projected
2040 – 208,636

Layered above this
Increased multi-morbidity

Future dementia in England & Wales, projected deaths to 2040

Dementia deaths increased slightly to 2014 – 59,199

Projected 2040 – 219,409

Layered above this

Increased multi-morbidity

Where will people die in future years?

Projections of place of death until 2040, assuming continued average trends between 2004-2014

The prevalence of multimorbidity rises with age

BUT, Rising tide of multimorbidity – at ALL ages

Source: Fefoyo et al, BMC Public Health 2015:15:415, data on Ontarians, Canada but relevant to UK & other countries
Multimorbidity also rises with deprivation

Figure 4: Selected comorbidities in people with four common, important disorders in the most affluent and most deprived deciles. COPD=chronic obstructive pulmonary disease. TIA=transient ischaemic attack.

Why does multimorbidity matter – different effects of where people are cared for

Example: England 2001-14, respiratory disease, n=380,232 (COPD (334,520), IPD (45,712))

The ‘new’ era of patient and family needs has implications for care

• Ageing, more oldest old
• More multi-morbidity
• More fluctuant trajectories of illness
• Treating later into course of illness
• More deaths in UK and many countries (due to post war boom in birth-rate and ageing)
• In older people **physical illness has a greater social, functional and psychological effect**
• **MORE UNCERTAINTY** – services and treatments need to respond to this
London population: its shrinking right?

Fewer older people in London?

2017 – total population 8.9 million,
  – 474,000 aged 75 and over (5.3%)
  – 144,000 aged 85 and over (1.6%)

2040 projections
  – total population 10.5 million (up by 18%)
    – 851,000 aged 75 and over (8.1%, up by 80%)
    – 292,000 aged 85 and over (2.8%)  
      DOUBLE, up by 103%

Source: https://data.london.gov.uk/dataset/projections/
The fall in home deaths has reversed in England & Wales

Source: Gomes et al Palliative Medicine 2012 Vol 26(2)
Does palliative care affect whether death is at home, across diseases? – YES more likely

- OR 2.21 (95%IC 1.31 to 3.71) home death compared with conventional care
- Meta-analysis 7 trials,
- 1222 patients, majority cancer

London population: people in London don’t want to die at home, right?

Social and clinical determinants of preferences and their achievement at the end of life: prospective cohort study of older adults receiving palliative care in three countries

Methods: We recruited adults aged ≥65-years from hospital-based multiprofessional palliative care services in London, Dublin, New York, and followed them for >17 months. All services offered consultation on hospital wards, support for existing clinical teams, outpatient services and received funding from their National Health Service and/or relevant Insurance reimbursements. The New York service additionally had 10 inpatient beds. All worked with and referred patients
### Table 3: Preference for place of death, treatment priorities and decision making

<table>
<thead>
<tr>
<th></th>
<th>London (N = 64)</th>
<th>Dublin (N = 59)</th>
<th>New York (N = 15)</th>
<th>All (N = 138)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most preferred place of death</strong>¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>42</td>
<td>28</td>
<td>7</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td>47%</td>
<td>47%</td>
<td>56%</td>
</tr>
<tr>
<td>Home of a relative or friend</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Palliative care unit or inpatient hospice</td>
<td>12</td>
<td>14</td>
<td>5</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>19%</td>
<td>24%</td>
<td>33%</td>
<td>22%</td>
</tr>
<tr>
<td>Hospital</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>7%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Nursing home or residential home</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>3%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Elsewhere</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>6%</td>
<td>2%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Don’t know/prefer not to say</td>
<td>3</td>
<td>10</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>17%</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Least preferred place of death</td>
<td>London (N = 64)</td>
<td>Dublin (N = 59)</td>
<td>New York (N = 15)</td>
<td>All (N = 138)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Home</td>
<td>8 (13%)</td>
<td>10 (17%)</td>
<td>4 (27%)</td>
<td>22 (16%)</td>
</tr>
<tr>
<td>Home of a relative or friend</td>
<td>9 (14%)</td>
<td>3 (5%)</td>
<td>0 (0%)</td>
<td>12 (9%)</td>
</tr>
<tr>
<td>Palliative care unit or inpatient hospice</td>
<td>5 (8%)</td>
<td>1 (2%)</td>
<td>0 (0%)</td>
<td>6 (4%)</td>
</tr>
<tr>
<td>Hospital</td>
<td>18 (28%)</td>
<td>15 (25%)</td>
<td>2 (13%)</td>
<td>35 (25%)</td>
</tr>
<tr>
<td>Nursing home or residential home</td>
<td>17 (27%)</td>
<td>6 (10%)</td>
<td>4 (27%)</td>
<td>27 (20%)</td>
</tr>
<tr>
<td>Somewhere else</td>
<td>1 (2%)</td>
<td>8 (14%)</td>
<td>2 (13%)</td>
<td>11 (8%)</td>
</tr>
<tr>
<td>Don’t know/prefer not to say</td>
<td>6 (8%)</td>
<td>16 (27%)</td>
<td>3 (20%)</td>
<td>25 (18%)</td>
</tr>
</tbody>
</table>

Higginson et al. BMC Geriatrics (2017) 17:271
DOI 10.1186/s12877-017-0648-4
How does home palliative care work?
What are the key ingredients?

Results of a meta-ethnography

London Aging

London's working-age population is projected to shrink

Source: London Assembly interim 2015-based population projections
The future in health care?

• Wearable medical devices
• Virtual consultations
• Surgical robotic
• Minimally invasive procedures
• 3D simulations in procedure planning
• Computerised diagnosis
The future in health and social care?

- Global electronic health records
- Early warning and decision support systems
The future in health care?

- Increased specialisation and complexity
- Increased challenges to healthcare safety
- Workforce for hands on care?
- The role of different professionals, will some be squeezed out?
Michal Galazka International Study Day

New Frontiers, New Technologies
An all-day educational meeting to develop future leaders in palliative care, looking at the latest scientific research in the use of technology in health care.

Monday 9 July 2018, 10:00-16:00
Location: Dinwoodie Lecture Theatre, Ground Floor, Cicely Saunders Institute, King’s College London, Bessemer Road, London, SE5 9PJ

Speakers will include Professor Irene Higginson, Professor David Currow, Professor Richard Dobson, Professor Matthew Hotopf, Professor Bridget Johnston, Eve Namisango, Professor Jackie Sturt and Dr Gao Wei.

The digital landscape of health care is changing worldwide. Health and social care needs are increasing and changing. New models of care, and new therapies to help cope with the complex conditions faced by many people and their families and carers are evolving.

In our second Michal Galazka International Study Day, speakers will present their research and discuss with the audience the implications and opportunities for health care, and the new responsibilities that digital change brings.

The day will include sessions on remote monitoring in the community, the implications of new technology, such as wearables, the global aspects of technology in different locations, and the opportunities for big data and outreach presented by technology. Refreshments including a sandwich lunch will be provided.

Please register to attend at: http://bit.ly/2o0qgYe
www.csi.kcl.ac.uk
@CSI_KCL
Email: csi.events@kcl.ac.uk

The Michal Galazka Study Day is part of our global leadership programmes and is named in honour of Michal Galazka, pioneer of international hospice education.
CPD (4 credits) pending Royal College of Physicians 117830

www.csi.kcl.ac.uk
Effect of palliative care on health and social care costs…

- In hospital cost savings greater with earlier referral after admission to hospital (prospective cohort study with propensity matching, US data)

![Table 3. Estimated Treatment Effect on Total Cost, by Time to Consult](image)

<table>
<thead>
<tr>
<th>Treatment: Time of Consultation After Hospital Admission (percentile)</th>
<th>No. of Patients</th>
<th>Estimated Treatment Effect ($) (95% CI)</th>
<th>P</th>
<th>Implied Saving (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any time (100th)</td>
<td>713 256 969</td>
<td>153 (-1,266 to 1,572)</td>
<td>.83</td>
<td>-2</td>
</tr>
<tr>
<td>Within 20 days (97.5th)</td>
<td>713 249 962</td>
<td>-706 (-2,007 to 596)</td>
<td>.29</td>
<td>7</td>
</tr>
<tr>
<td>Within 10 days (95th)</td>
<td>713 244 957</td>
<td>-927 (-2,283 to 429)</td>
<td>.18</td>
<td>10</td>
</tr>
<tr>
<td>Within 6 days (90th)</td>
<td>713 231 944</td>
<td>-1,312 (-2,568 to -56)</td>
<td>.04</td>
<td>14</td>
</tr>
<tr>
<td>Within 2 days (75th)</td>
<td>713 197 910</td>
<td>-2,280 (-3,438 to -1,122)</td>
<td>&lt;.01</td>
<td>24</td>
</tr>
</tbody>
</table>

Abbreviations: PC, palliative care; UC, usual care.

*Implied saving in total cost of hospital stay from receiving treatment compared with receiving UC only.*
Cost savings greater when patients have multiple morbidity..

Receipt of a palliative care within two days of admission associated with: 22 percent lower costs, comorbidity score of 2–3; 32 percent lower costs for those with a score of 4 or higher

Triggering referrals for palliative care in fluctuating diseases, Source: Maddocks et al Lancet. 2017 Sep 2;390(10098):988-1002.

**Figure 3:** Models of integrative working with palliative care for people with COPD. COPD = chronic obstructive pulmonary disorder.
Can we get better at triggering a palliative care assessment and reviewing our practice? - easy to use measures: E.g. Integrated Palliative care Outcome Scale (IPOS)

- Developed and validated in many countries, settings and disease
- 10 questions, rated 0 – 4
- Open question for patient concerns
- Time to complete 5 minutes
- http://pos-pal.org/
# Take home thoughts: future for palliative care

<table>
<thead>
<tr>
<th>New era of palliative care: new landscapes</th>
<th>Ageing, multi-morbidity, fluctuating trajectories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformative models of care and treatment for new population</td>
<td>Palliative care to live well, as well as end of life care</td>
</tr>
<tr>
<td></td>
<td>Integration</td>
</tr>
<tr>
<td></td>
<td>Short-term palliative care</td>
</tr>
<tr>
<td>Transformative research</td>
<td>Potential in London for..</td>
</tr>
<tr>
<td>Methods to evaluate complex interventions</td>
<td>New cost effective therapies, models of care, technologies</td>
</tr>
<tr>
<td></td>
<td>Clinical academic integration</td>
</tr>
</tbody>
</table>
Acknowledgements

- Colleagues and collaborators, patients and families
- Funders, National Institutes for Health Research (NIHR) and Cicely Saunders International
- For resources go to:
  - www.csi.kcl.ac.uk
  - www.pos-pal.org