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IPEBLA IACA IAAHS PBSS Canadian Institute of Actuaries Institut canadien des actuaires

End of Life Care in an Aging World

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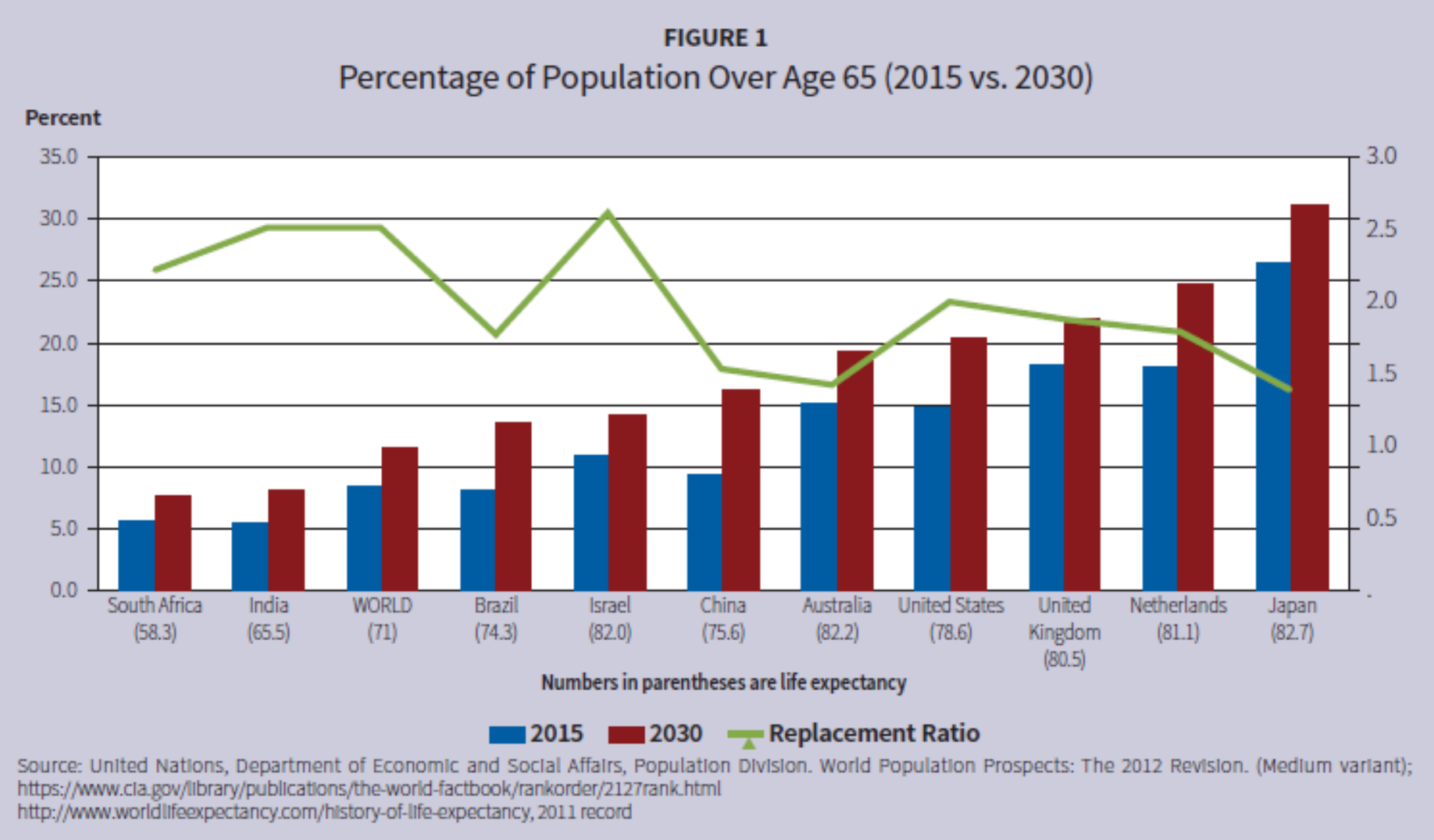
Agenda

- Introductions
- The Aging Population
- Cost of Care
- Quality of Death
- Curative Care vs. Palliative Care
- Potential Strategies for Stakeholders
- How Actuaries can help

The Aging Population

- The world is aging
- Creating a demographic shift
  - Felt by all countries
  - Some will feel more acutely than others

The Aging Population (cont.)

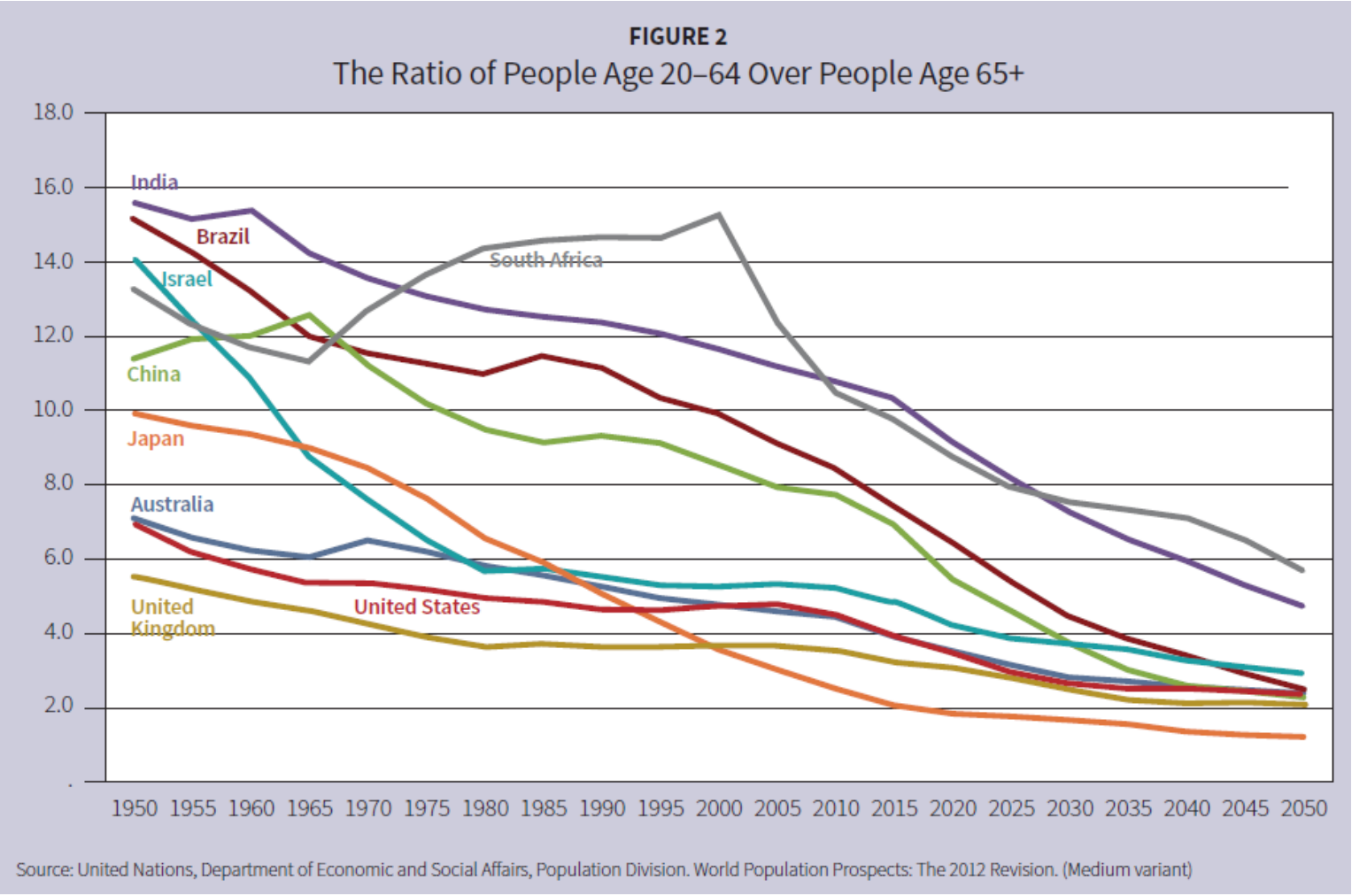


The Aging Population (cont.)

- Factors causing demographic shift
  - Health Improvement
  - Advances in medical treatment
  - Decline in fertility

- Results
  - Fewer working aged adults supporting increasing elderly population
  - Strain on health care systems

The Aging Population (cont.)



Results

- Strain on health care systems
- Elderly more likely to suffer and die from chronic and non-communicable diseases

The Aging Population (cont.)

FIGURE 3

The Shift Toward Non-communicable Diseases (per 100,000)

	USA		United Kingdrom		Japan		Netherlands	
	1901	2011	1901	2011	1901	2004	1901	2011
Communicable Diseases								
Tuberculosis	189.9	0.1	66.6	0.35	172.75	2.15	194	0.2
Pneumonia	197.2	17.3	115.02	23.8	111.95	85.9	—	—
Bronchitis and other respiratory issues	40.4	45.9	136.91	69;9	—	8.55	—	38.7
Non-communicable Diseases								
Heart/Circulatory System Diseases	140	191.5	107.7	145.65	49.3	126.5	—	228.4
Malignant Neoplasms	66.4	185.1	40.33	171.5	49.95	255.3	94	256.8
Cerebrovascular Diseases	—	41.4	—	34.4	169.5	102.2	—	5.06*
Diabetes	—	23.7	9.11	5.15	—	10.05	—	—
Accidents	83.8	40.6	—	14.8	40.5	38.85	—	—

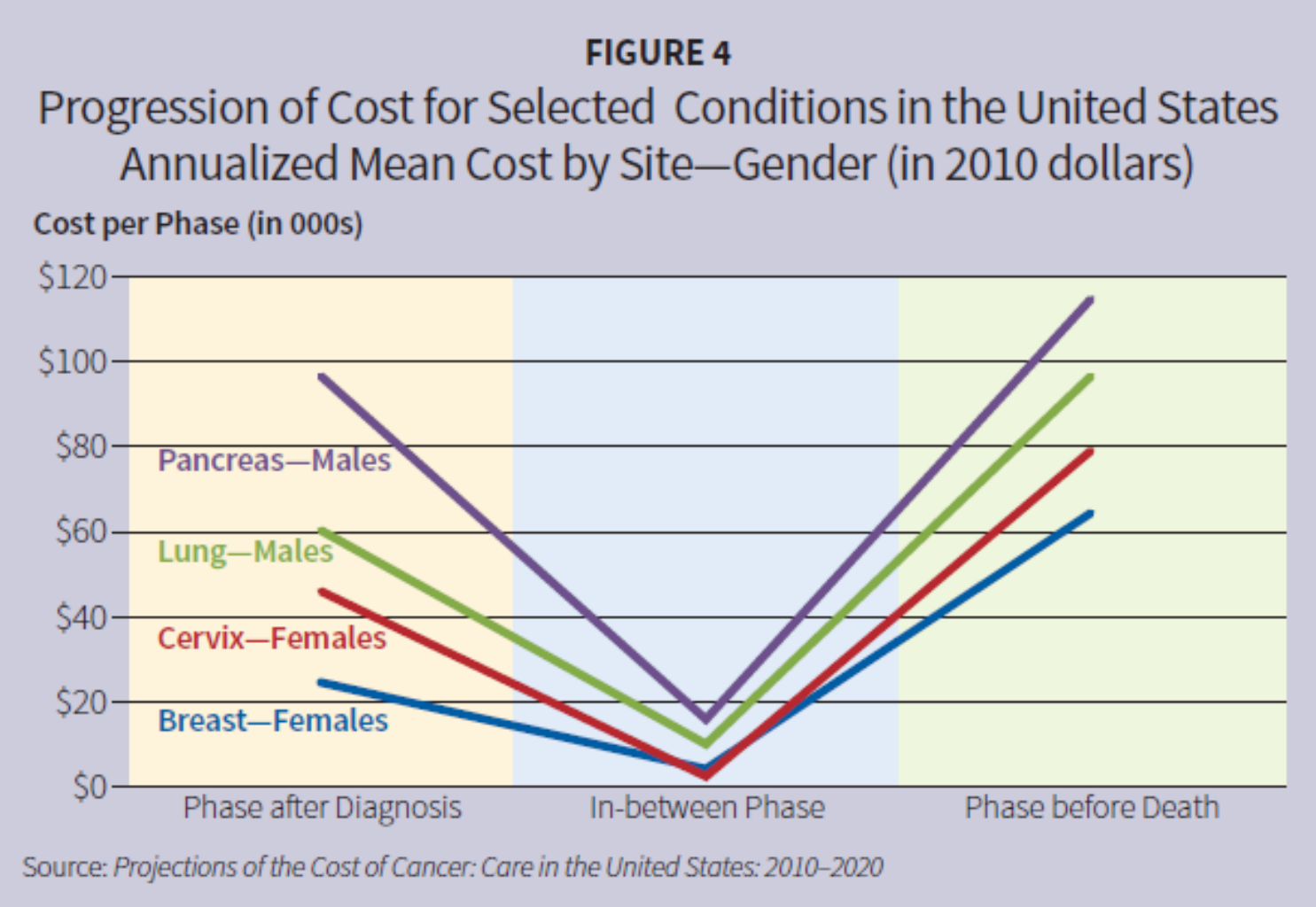
USA 1901: http://www.cdc.gov/nchs/data/dvs/lead1900_98.pdf; USA 2011: http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_03.pdf
UK 1901: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-215593; UK 2011: http://www.ons.gov.uk/ons/publications/re-referencetables.html?edition=tcm%3A77-277727
Netherlands: http://statline.cbs.nl/StatWeb/publication/?DM=SLNL&PA=37852&D1=124-127,131,134-145&D2=a&HDR=T&STB=G1&VW=T;
India: Ministry of Home Affairs, Government of India.

- Most health care systems emphasize curative interventions
- Curative interventions on incurable conditions?

Cost of Care (cont.)

- The increasing incidence of non-communicable conditions such as Alzheimer's disease, cancer, dementia, and heart disease means the nature of care must also shift
- In the past, societies used to let these conditions run their course
- Health practitioners can now take heroic efforts to sustain life and forestall death

Cost of Care (cont.)



- Costs follow U-shaped curve
- Leads to higher cost of care at the end of life

Cost of Care (cont.)

- Aggressive treatments have been increasing with little signs of abating
- Focus of this care is to extend life and improve the quality of life
- However, these outcomes may not be possible given the conditions elderly now face
- Experts now say that the use of multiple, intensive services at the end of life
  - Has little clinical value and
  - May bring unnecessary pain and chaos

Cost of Care (cont.)

- Some experts now advocate decreasing (unnecessary) treatment at the end of life that does not improve the quality of life
- So:
  - Instead of focusing on intensive procedures with little clinical benefit that do not improve the quality of life
  - Some researchers now focusing on the “Quality of Death”
    - Defining what constitutes a “Good Death”
    - Such research and the implementation of its results need to be sensitive to religious, ethical, personal, and cultural considerations when discussing end-of-life care.

Quality of Death

- Focus on the quality of death is not unprecedented
- Ars Moriendi = the “Art of Dying”
  - Latin texts dating back to around 1450 giving advice on how to “die well”
  - Texts have six parts
    - Quotations relating to death
    - Five temptations
    - Instructions
    - Questions
    - How to
    - Prayers

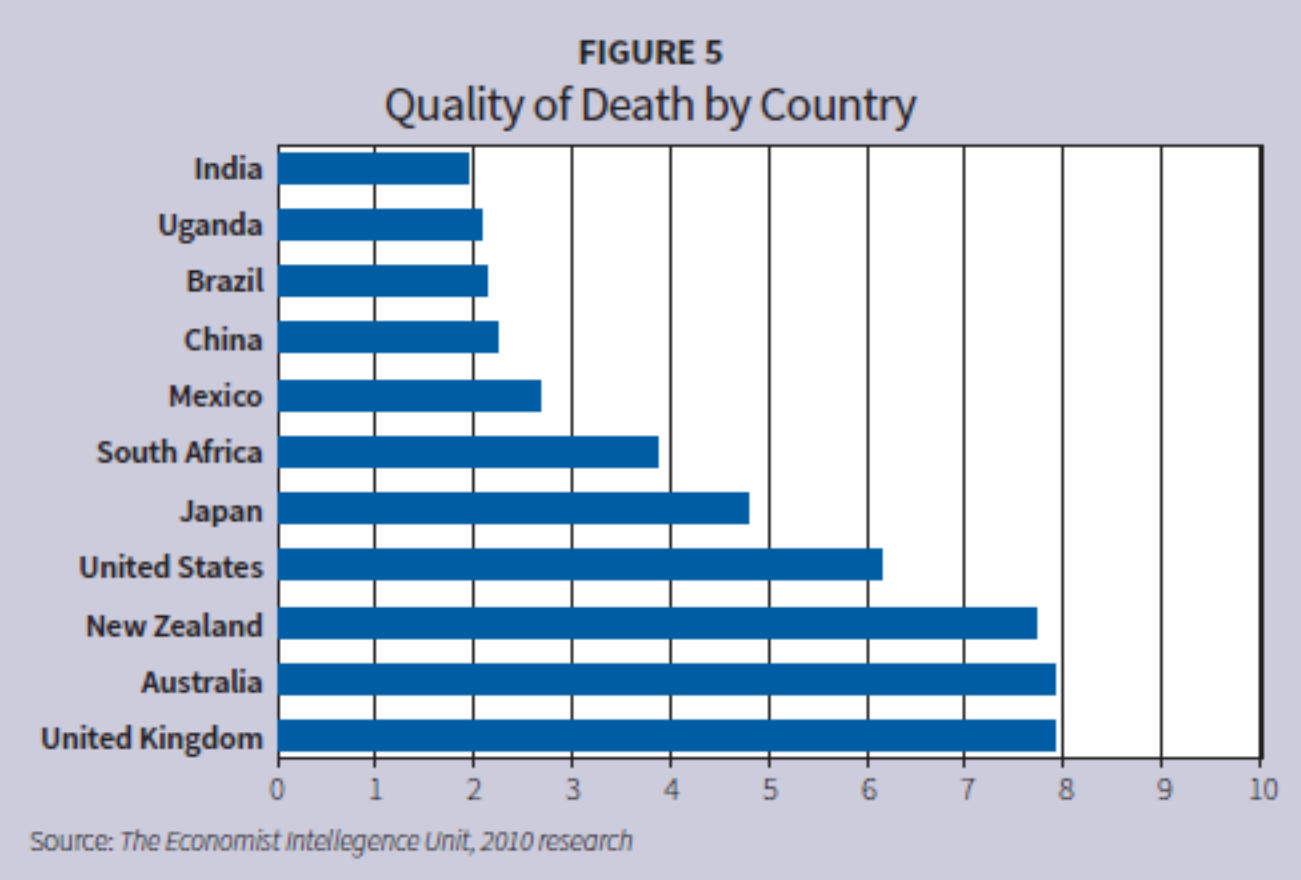
Quality of Death (cont.)

- People are living with non-communicable and chronic diseases for a very long time
  - Thus, we consider the end of life as the period when there is no recovery or cure (or the patient chooses not to pursue a cure)
  - In this period, health degrades and the only exit is death.
- Issues
  - Traditional health care systems are curative-oriented
  - Death continues to be a taboo subject in most cultures
- End of life is not characterized by the degradation in the quality of life or, more accurately, the quality of the prolonged death

Quality of Death (cont.)

- Lien Foundation commissioned the Economist Intelligence Unit to bring the “quality of death” issue to light
- Developed the “Quality of Death Index” to measure the end of life care issues across 40 countries
- Index scores countries across four categories:
  - Basic end of life health care environment
  - Availability of end of life care
  - Cost of end of life care
  - Quality of end of life care
- Index uses 24 indicators that fall into three categories
  - Quantitative indicators (e.g., life expectancy, health care spending as a % of GDP)
  - Qualitative indicators—assessments of end-of-life care in individual countries (e.g., public awareness of end-of-life care)
  - Status indicators—whether something is or is not the case (e.g., existence of a government-led national palliative care strategy)
- Scores are aggregated and normalized for comparison

Quality of Death (cont.)



- UK, Australia, and New Zealand to the overall ranking
- Low rankings typically due to
  - Lack of financing
  - Policies for end of life care
- High rankings attributed to
  - Relative wealth
  - Advanced infrastructure
  - Established end of life care initiatives
  - Initiatives often include palliative care

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Curative Care vs. Palliative Care (cont.)

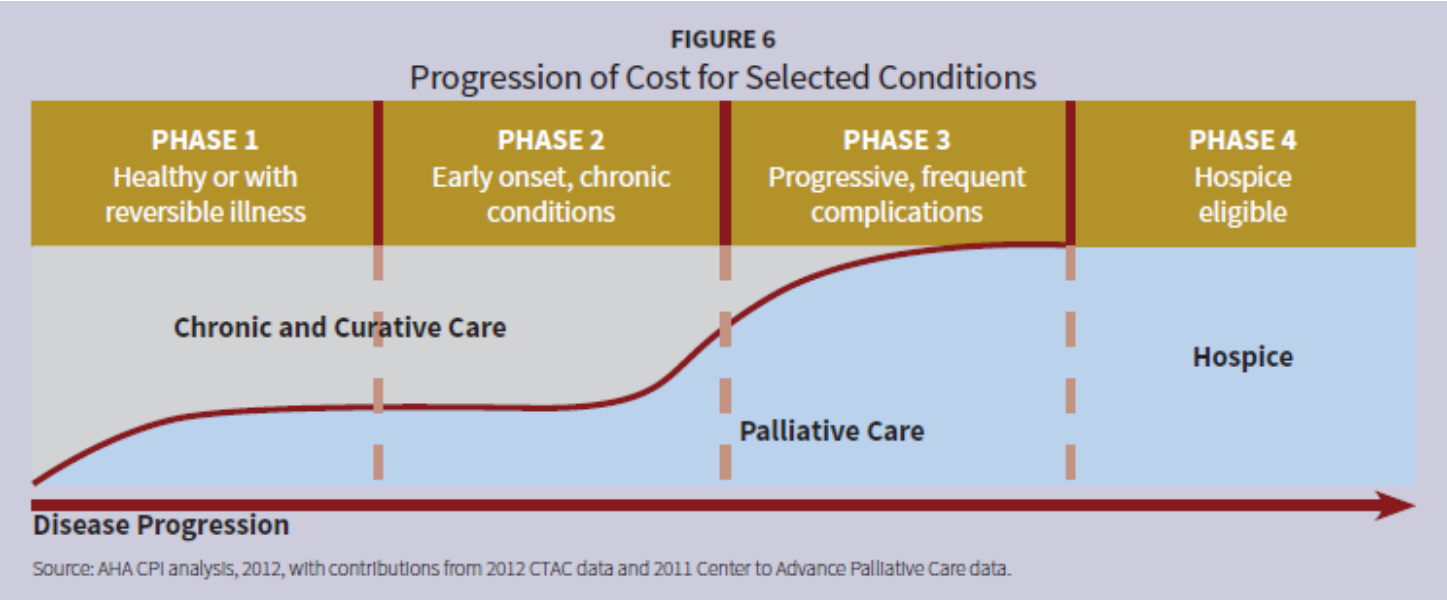
- Curative Care
  - Intended to improve the quality of life and extend life
  - As chronic diseases progress in the elderly and life nears its end, curative care may no longer yield the desired improvement in quality of life
  - Often used when it can provide only minimal benefit and can conflict with the desires of the patient
  - Why?
    - Families in all societies cherish life and want to continue care for fear of “giving up”
    - Physicians are primarily trained in curative care as opposed to palliative care
    - Most physicians receive minimal training in discussing the transition to other forms of care that may be more appropriate at the end of life
    - Public policy and health care systems are traditionally not designed to consider the inclusion of palliative care.

Curative Care vs. Palliative Care (cont.)

- Palliative Care
  - The World Health Organization (WHO) defines palliative care as

    "The active total care of patients whose disease is not responsive to curative treatment. Control of pain, of other symptoms, and of psychological, social and spiritual problems, is paramount. The goal of palliative care is achievement of the best quality of life for patients and their families."
  - Palliative care is an approach that:
    - Affirms life and regards death as a normal process
    - Does not hasten or postpone death
    - Provides relief from pain and other symptoms
    - Offers a support system to help patients live as actively as possible right up to their death.
    - Integrates psychological and spiritual care
    - Provides a wider support to help the family cope during both the patient's illness and their own bereavement after death

Curative Care vs. Palliative Care (cont.)



Palliative care, often followed by a hospice stay, becomes increasingly more important to improve quality of life and control costs

The WHO has tried to integrate palliative care into its public health strategy

- Encouraging palliative care to be essential part of a country's health care system
- Encouraging access to palliative care
- Encouraging adequate drug availability is
- Encouraging more training of health care professionals and public education

Potential Strategies for Stakeholders

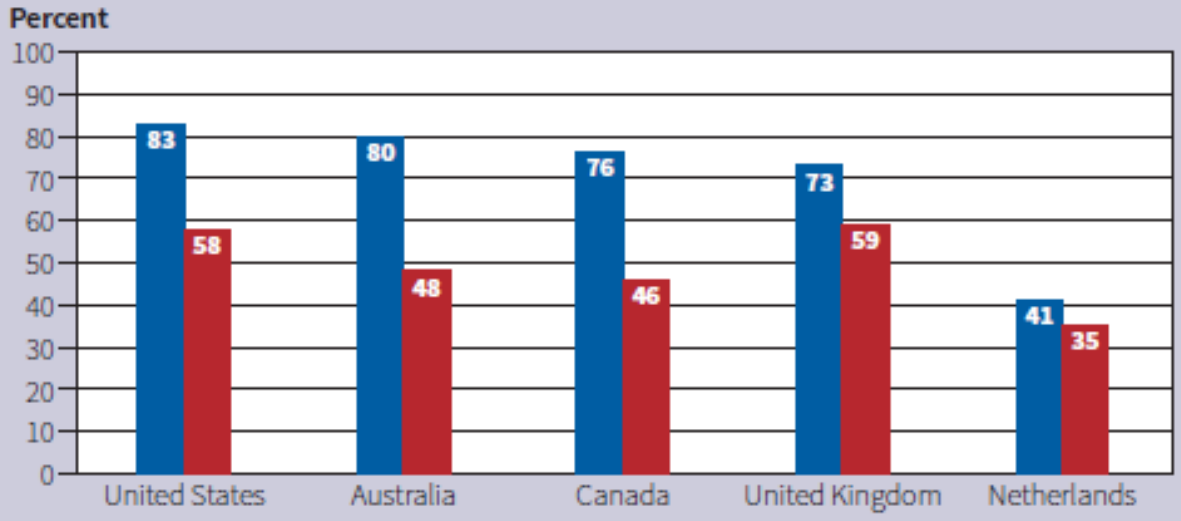
- Public Policy
  - Financing to address solvency of publicly funded programs
  - Integration of various forms and level of health care
  - Contribution requirements
  - Benefit Adjustments
  - Legislation
- Communities
  - Approaches will vary based on income levels, demographics, and availability of health care
  - Examples
    - Kerala, India
    - UK’s Community Nurse Development Programme

Potential Strategies for Stakeholders (cont.)

- Providers - Improve patient engagement

FIGURE 7

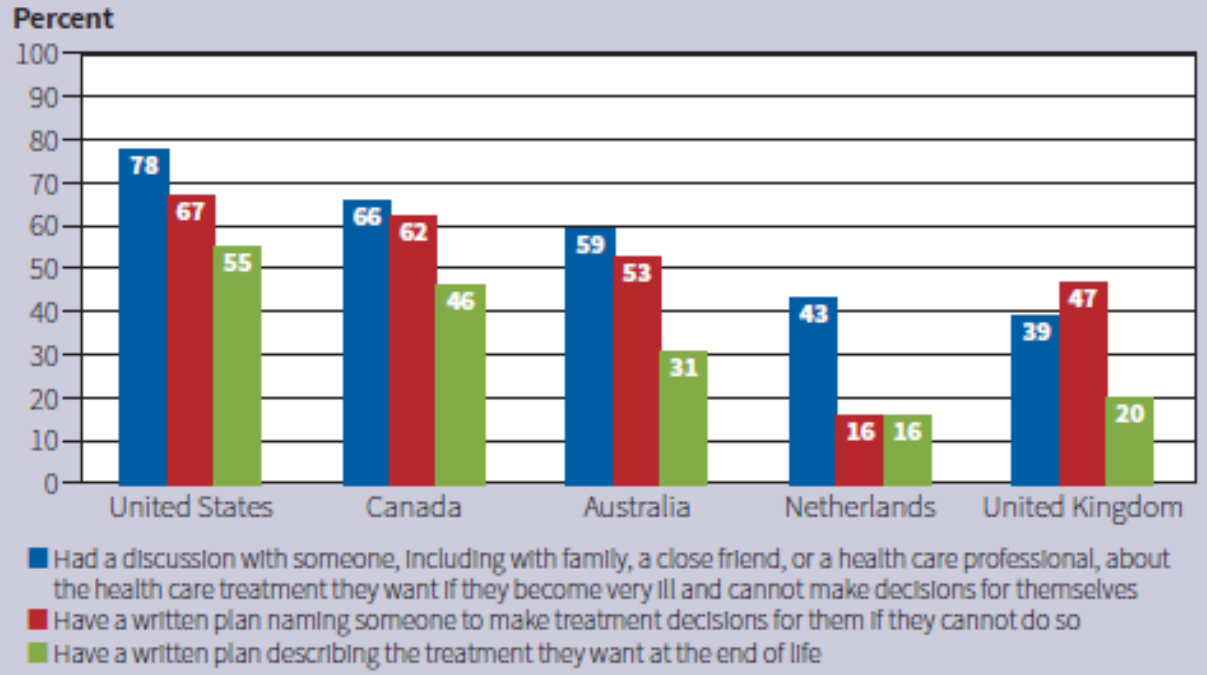
Patient Engagement in Chronic Care Management, Among Adults Age 65 or Older



Source: *2014 Commonwealth Fund International Health Policy Survey of Older Adults in Eleven Countries*

FIGURE 8

End-of-Life Preparation by the Elderly



Source: *2014 Commonwealth Fund International Health Policy Survey of Older Adults in Eleven Countries*

Potential Strategies for Stakeholders (cont.)

- Families and Individuals
  - Advanced Directives
  - Discuss advanced care planning with providers
  - Understand care options
- Insurance Companies
  - Expand traditional coverage to include new types of treatment of end of life care
  - Expand their role in piloting end-of-life care initiatives based on their in-depth knowledge of health care financing and how health care systems work

How Actuaries can Help

- Continue with current contributions
  - Financial forecasting
  - Premium rate setting
  - Liability and reserve setting
  - Surplus management
- Expand focus to include the whole health care system. Examples include:
  - Qualitative factors – expand analyses to include factors such as patient satisfaction
  - Strategic planning – develop tools to assist issues from a policy perspective all the way to a family and individual perspective
  - Expand attributes of insurance products (e.g., longer time horizons)
  - Financial modeling for increasingly more complex public/private mix of payers
  - Ensuring coverage includes end of life care
  - Palliative vs. Curative care modeling, including how the infrastructure may have to change

Looking Ahead

- Nearly all 1st and 2nd world countries will face these issues. However, very few have begun long-term planning
- As the pace of population aging increases, a greater portion of a country's GDP will be consumed by health care spending
- Solutions will need to need to include changes in public policy, culture, attitudes, and within the health care industry
- Solutions should consider public policy, financial constraints, regional differences, cultural and religious norms, and individual and family positions.
- Solutions must be created by all players—policymakers, providers, families, and the elderly
- None are going to be easy but holistic considerations of the elements of end-of-life care are necessary to effectively address the shifting needs of the elderly population

Thank You