Reshaping cancer control for ageing societies
Ageing and Cancer Series

Long View Dialogue
20th October 2020
Our experts 1/2

**Yvonne Arivalagan (moderator)**

**Sophie Pilleron:** Epidemiologist currently affiliated with the Big Data Institute at the University of Oxford. She regularly collaborates with the International Agency for Research on Cancer on the description of cancer burden in older populations at global level

**Yuka Sumi:** Medical Officer, Ageing and Health, at the Department of Maternal, Newborn, Child & Adolescent Health and Ageing (MCA), UHC life course, at the World Health Organization (WHO). Responsible for WHO Integrated Care for Older People (ICOPE) approach

**Ravindran Kanesvaran:** Consultant in the Department of Medical Oncology of the National Cancer Centre Singapore. As of September 2020, President of the International Society of Geriatric Oncology (SIOG).
Our experts 2/2

You, the audience

patient advocacy, global health, monitoring & evaluation, gerontechnology, rehabilitation, health education, patient navigation, clinical psychology, cancer planning, public health, nursing, Ministry of Health, academia, medical oncology, geriatrics, emergency medicine, palliative care…
Cancer burden in older populations

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University of Oxford

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@Spilleron
Population is ageing

2019
1 in 11 65+
143 million 80+

2050
1 in 6 65+
426 million 80+

Figure I.1. Share of total population aged 65 years or over, by region, 1990-2050

2018
18.1 million cancer cases
50% in 65+
13% in 80+

Estimated age-standardized incidence rates (World) in 2018, all cancers, both sexes, ages 65+
In 2018, there were 18.1 million cancer cases, with 50% occurring in individuals aged 65 and older and 13% in those aged 80 and older.

By 2040, it is projected that there will be 29.5 million cancer cases, with 59% occurring in individuals aged 65 and older and 22% in those aged 80 and older.
Cancer burden in 65+ in 2012 to 2035

54% in developed regions VS. 144% in less developed regions
... in 80 + between 2018 and 2050
Latin America and the Caribbean

2018
679k new cancer cases
48% total new cancer cases

+121%

2040
1.6 million new cancer cases
60% total new cancer cases

Pilleron et al. J Geriatr Onc, 2020
Latin America and the Caribbean - 2018 to 2040

Number of new cases in 2018

- **Central America**
  - Males: 60,000 (142% change)
  - Females: 50,000 (146% change)

- **South America**
  - Males: 280,000 (123% change)
  - Females: 232,000 (118% change)

- **The Caribbean**
  - Males: 33,000 (90% change)
  - Females: 26,000 (92% change)

Number of new cases in 2040

- **Central America**
  - Males: 144,000
  - Females: 123,000

- **South America**
  - Males: 621,600
  - Females: 505,500

- **The Caribbean**
  - Males: 62,700
  - Females: 49,000

Pilleron et al. J Geriatr Onc, 2020
Implications

- Challenge further strained healthcare systems worldwide
- Major economic and social burden
- Burden for caregivers who may be old as well
Integrated care for older people

Yuka Sumi
Medical Officer
Ageing and Health (AAH)
Dept of Maternal, Newborn, Child & Adolescent, Health & Ageing
World Health Organization
Healthy Ageing
Process of developing and maintaining the functional ability that enables wellbeing in older age

**Intrinsic Capacity (IC)**
Combination of all the physical and mental capacities of an individual

**Functional Ability (FA)**
Combination and interaction of IC with the environment a person inhabits
Key operational concept of Healthy Ageing

✓ Shifting from detecting diseases in one point in time and treating in fragmented ways, to assess and manage intrinsic capacity and functional ability across the life course as a continuous trajectory.
There is no ‘typical’ older person
ICOPE approach

ICOPE reflects a community-based approach that will help to reorient health and social services towards a more person-centred and coordinated model of care that supports optimising functional ability for older people.
What is ICOPE
person-centred care

- Maximize intrinsic capacity and functional ability
- Person-centred assessment & personalized care plans
- Community-level and home-based interventions
- Multidisciplinary care teams
- Support for self management
- Support caregivers
- Ensure Referral and follow up
ICOPE TOOLS

• Evidence based interventions- ICOPE guidelines

• Implementation
  ICOPE implementation framework: Guidance for systems and services
  ICOPE handbook: Guidance on person-centred assessment and pathways in primary care
  ICOPE handbook app: Mobile application for ICOPE care pathways

• Self-management
  mAgeing
VISION: World in which all people can live longer and healthier lives

ACTION AREAS:
1. changing how we think, feel and act towards age and ageing;
2. developing communities in ways that foster the abilities of older people;
3. delivering person-centred integrated care and primary health services responsive to older people;
4. providing older people who need it with access to long-term care.

https://www.who.int/ageing/decade-of-healthy-ageing
Reshaping Cancer Control for Ageing Societies: Asia-Pacific Perspective

Ravindran Kanesvaran
Consultant, Department of Medical Oncology, National Cancer Centre Singapore
President, International Society of Geriatric Oncology (SIOG)
**FACTS**

A continent with 46 countries with disparities & characteristics

Disparities
- Health outcomes
- Access to services
- Health seeking behaviour
- Health risks

Characteristics
- Economic development stages
- Ethnicities
- Cultures
- Historical diversity
ASIA-PACIFIC REGION

Overview

- **Countries**: 46 countries over 2 continents (Asia and Australia & Oceania)
- **Population**: 3.45 billion, 53% of the world’s total population
- **Growth**: Fastest-growing and most dynamic region globally
- **Epidemiological transition**: increase in life expectancy = higher burden of NCDs, including cancer
- **Health**: inadequate resources for health and a high burden of disease
- **GDP categories per country**:
  - High-income
  - Upper middle-income
  - Lower middle-income
  - Low-income
50% of global cancer burden is in Asia

Estimated age-standardized incidence rates (World) in 2018, all cancers, both sexes, ages 0-74

Source: http://gco.iarc.fr/today/online-analysis
Oncology workforce (approx.)

- India has 1 oncologist per 1 million of its population – or 1300 for its population of 1.3 billion
- China – 18/million or 23,400 for its population of 1.3 billion
- Korea – 561 for 51 million
- Japan- 11,176 for 127 million
- Australia – 1500 for 25 million

Oncologists per One Million of Population in Selected Countries, 2018

Source: IQVIA OneKey, Apr 2018
ASIA-PACIFIC REGION CHALLENGES

From desk-research

• **Workforce**: The number of doctors and nurses per 1 000 population varies widely across Asia-Pacific countries.
  • High concentration in urban areas
  • Emigration trends

• **Access to medicines & treatment**: Access to essential medicines remains a challenge.

• **Availability of medicines**: Medicines are often not available or unaffordable and might be of low quality or improperly used.

• **Financial implications**:
  • Patients incur full out-of-pocket for generic, inexpensive cancer medicines that are on the WHO Model List of Essential Medicines.
  • Many patients in the Region pay out-of-pocket (OOP) for opioids.
  • In the Asia-Pacific region OOP expenditure on medicines accounts for a substantial proportion of total health care expenditures, pushing many people below the poverty line.
Population Ageing in Singapore by 2030

Dependency Ratio: 1 in 4 > age 65
Top cause of mortality in Singapore

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total No. of Deaths</strong></td>
<td>18,938</td>
<td>19,393</td>
<td>19,862</td>
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<tr>
<td><strong>% of Total Deaths</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. Cancer</td>
<td>30.5</td>
<td>29.4</td>
<td>29.7</td>
</tr>
<tr>
<td>[ICD10: C00-C97]</td>
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<tr>
<td>2. Pneumonia</td>
<td>18.5</td>
<td>19.0</td>
<td>19.4</td>
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<tr>
<td>[ICD10: J12-J18]</td>
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<tr>
<td>3. Ischaemic heart diseases</td>
<td>15.5</td>
<td>16.0</td>
<td>16.7</td>
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<td>[ICD10: I20-I25]</td>
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<tr>
<td>4. Cerebrovascular diseases (including stroke)</td>
<td>8.9</td>
<td>8.4</td>
<td>6.8</td>
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<tr>
<td>[ICD10: I60-I69]</td>
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<tr>
<td>5. External causes of morbidity and mortality</td>
<td>4.9</td>
<td>4.7</td>
<td>4.5</td>
</tr>
<tr>
<td>[ICD10: V01-Y89]</td>
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Healthcare Challenges

Longer Life Expectancy

1 in 7 Singaporeans aged ≥ 65 years

Disease Burden By 2030 (Estimated)

- 1 in 7 Adults aged 15-69 years to have DIABETES
- 1 in 220 Residents to have a HEART ATTACK
- 1 in 180 Residents to be diagnosed with a CANCER
- 1 in 230 Residents to have a STROKE

Rising Healthcare Costs

Annual healthcare spending ($ billion)

- 2010: 3.74
- 2011: 3.94
- 2012: 4.67
- 2013: 5.77
- 2014: 7.02
- 2015: 8.93
- 2016*: 6.0
- 2020**: 13

Note: * Revised FY16 total expenditure ** Projected figure
Figures rounded to nearest $10 mil

Source: Ministry of Finance

SingHealth COI: Internet surfing separation an ‘additional burden’ for healthcare professionals, says MOH advisor

“The operational challenges ... will inevitably translate into tangible manpower and financial costs, and reduced employee and patient satisfaction. Ultimately, healthcare costs for the general Singapore public will rise.”

- MOH Chief data advisor, Dr James Yip in a report to COI 12/11/18

Source: Channel NewsAsia, 12/11/18

9,000 more Healthcare workers needed in public healthcare & community care over next 3 years

Source: COO debate: MOH 10/8/17
# National Advisory Committee on Cancer ➔ toward a National Cancer Plan by 2021

<table>
<thead>
<tr>
<th>Preventive Care and Screening</th>
<th>Diagnosis and Treatment</th>
<th>Supportive and Palliative Care</th>
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<tbody>
<tr>
<td>Health Promotion Board and Epidemiology</td>
<td>Medical, Surgical, Radiation, Diagnostic Oncology</td>
<td>Palliative and Bereavement, Advance Care Planning</td>
</tr>
<tr>
<td>Singapore Cancer Society and other VWO</td>
<td>Geriatric Oncology</td>
<td>Supportive care for physical, social, emotional and financial effects of cancer</td>
</tr>
<tr>
<td>Smoking, exercise, diet Understanding and influencing psychology of behaviour</td>
<td>Cost of care, national planning of high-end resources, private-public partnerships</td>
<td>Advance Care Planning – simple, ubiquitous and dynamic</td>
</tr>
<tr>
<td>Screening programs - Clear &amp; consistent message - Funding</td>
<td>Training, manpower, AI Management of Aging population and aging cancer profile</td>
<td>Care of both patients, caregiver and families</td>
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Panel discussion

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Q & A
Thank you