Innovating the Technology in Cancer Prevention and Treatment: The Global View

Project Coordinator: Feng-Ming (Spring) Kong, Professor, Department of Clinical Oncology, Centre of Cancer Medicine, School of Clinical Medicine, LKS Faculty of Medicine, HKU

(Project No.: KE-SI-2022/23-56)
Strategic Theme(s): Health and Medical Technologies
Introduction Underpinning Research

Patient Factors

Cancer knowledge of patient and their family members play important role in treatment decision and outcome

Tumor Factors

A patient’s outcome is determined by factors of tumor, treatment and patient.
How about Mainland China and Hong Kong China?

Patients Factors

**Limited medical resources** and long waiting time to get care from specialized oncology experts in the public system and limited multidisciplinary effort. Hong Kong

**Limited time** with physician consultation: 2-3 minutes for an appointment Mainland China

Patients make wrong decisions on fighting against cancer due to the ‘**Rumors**’

How about Mainland China and Hong Kong China?

Where is reliable information resource?

the United States
many patient needed information
American Cancer Society, National Cancer Institute (NCI) and National Comprehensive Cancer Network (NCCN)
Main Targets

- Cancer patients & their family members, or those close to them
- General public who are at risk of suffering from cancer

Spectrum of Audience Reached

- Media platforms interested in spreading the knowledge to a greater audience
- Medical Professionals like non-cancer physicians, nurses
- Oncologists specialized in other types of cancer

Hong Kong, Mainland, or Chinese Speaking in other countries

Medical Students
PhD students in oncology

Scientists basic science researchers
Industrial professionals
So far, ~1.5 Million audiences have attended.

This series of KE topics is still ongoing:

July 29, 2023: Basic and MultiD Innovation in Preventing and Treating Sarcoma and Bone Cancers: The Global Views
August 26, 2023: MultiD Advances in Preventing and Treating Colorectal Cancer: The Global Views
September 31, 2023: Innovations in Prevention and Treatment for Ovarian Cancer: The Global Views
Example Video Recording, URL, Traffic Counts

1. [Example Video Recording, URL, Traffic Counts](https://m.inmuu.com/v1/live/news/1985031)

2. [Example Video Recording, URL, Traffic Counts](https://m.inmuu.com/v1/live/news/2081727/intro)

3. [Example Video Recording, URL, Traffic Counts](https://m.inmuu.com/v1/live/news/2125766/intro)

4. [Example Video Recording, URL, Traffic Counts](https://m.inmuu.com/v1/live/news/2249339/intro)

5. [Example Video Recording, URL, Traffic Counts](https://m.inmuu.com/v1/live/news/2125766/intro)
Example Video Recording, URL, Traffic Counts-2

- Example Video Recording, URL, Traffic Counts-2
- Example Video Recording, URL, Traffic Counts-2
Example Video Recording, URL, Traffic Counts - 3
Reach and Significance to General Public

There were 4988 new cases of breast cancer in 2020. We had 3453 people viewers attended our breast cancer section in the HKSAR. As was already noted, the audience size varies depending on how common cancer is. In this particular instance, it may be estimated that ~70% of the new patient population visited this section.

The audience reached is remarkable, number of viewers was associated with incidence of the specific cancer and societal attention of the cancer. Breast cancer session had the highest number of viewers (14K+ from Mainland and Hong Kong during the Chinese New Year Eve).

**Table 1: No. of new cases by cancer type and year**

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</thead>
<tbody>
<tr>
<td>Breast</td>
<td>3,440</td>
<td>3,522</td>
<td>3,544</td>
<td>3,883</td>
<td>3,020</td>
<td>4,123</td>
<td>4,391</td>
<td>4,646</td>
<td>4,793</td>
<td>4,988</td>
<td>1,249</td>
<td>4,125</td>
</tr>
<tr>
<td>Total</td>
<td>3,440</td>
<td>3,522</td>
<td>3,544</td>
<td>3,883</td>
<td>3,920</td>
<td>4,123</td>
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**Table 2: Age-standardised incidence rates, ASR (per 100,000 persons) by cancer type and year**

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<tbody>
<tr>
<td>Breast</td>
<td>32.6</td>
<td>32.7</td>
<td>32.3</td>
<td>35.0</td>
<td>34.6</td>
<td>35.9</td>
<td>37.2</td>
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<tr>
<td>Overall</td>
<td>32.6</td>
<td>32.7</td>
<td>32.3</td>
<td>35.0</td>
<td>34.6</td>
<td>35.9</td>
<td>37.2</td>
</tr>
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Notes:
1. ASR = Age-standardised rate. It is computed by the direct method using the World Population Distribution.
2. Population-related figures from 2017 to 2019 have been revised based on the latest population data.
3. Rates for gender-specific sites are per 100,000 male or female population.

Website of Hong Kong Cancer Registry, Hospital Authority: www3.ha.org.hk/cancereg
[Accessed: July 2023]
Reach and Significance to General Public
Outcomes and Impact: Societal Impact

Positive feedback from over 260 experts
Sharing their appreciation of the KE program and the platforms

A session around Chinese New Year eve with participation of over 20 experts 144000 audience is a good example of impact
Outcomes and Impact: News
Outcomes and Impact (Abstract)

This activity aims to establish a non-profit online education platform for cancer patients and families and at the same time popularize the knowledge of innovative technologies in cancer prevention, diagnosis, and treatment to the public, and answer some common questions of patients, their families, and the public. Since October 2021, 23+1 sessions have been held. The impact of this project has been remarkable from the following perspectives: 1) Over 260 experts considered this very important and donated their weekend time to help; 2) Over 1,500,000 audiences have participated this series, varying with the commonality of the cancer type, the average target audience doubled from the previous year; 3) answered 300+ questions from the public; 4) Many medical students actively participated this series, considered this as a great opportunity of effective learning while volunteering their time to help others; 5) Industrial professionals also joined the sessions for learning, stating “this help us understand the disease and current challenge”, this help them have a more thorough understanding of the current needs of the patients and ultimately help them set priority of research and market the development of more effective drugs or treatments; 6) The public education department of the China Anti-Cancer Association deems the output of this project to be of such high quality that they offered a number of books for both the general public and healthcare professionals; 7) Feng-Ming (Spring) Kong, the project coordinator, was elected by the public as a Star in Shenzhen Science Popularization.

In summary, this KE strategic project appeared to benefit everyone involved, and the remarkable 1.5 million people viewers highly speak for the powerful impact.
The PI of this strategic project was elected to be a STAR in Public Education of special medical knowledge, the only one in Oncology in the whole city of Shenzhen.
Outcomes and Impact: Book in Production

The content of our KE sessions are so good that we were invited to make the content into a book for long last impact.

Cover and the Table of Content of Planned Book Publication (Invited)
Outcomes and Impact: Greater Future Impact

Example Chapter of the Book
Knowledge Exchange Activities Photos - 1

2022.10.29. Liver Cancer Session

2022.10.29. Liver Cancer Session

2022.11.26. Lung Cancer Session
Knowledge Exchange Activities Photos-2

2022.11.26. Lung Cancer Session

2022.12.31. Breast Cancer Session

2023.1.28. Cervical Cancer Session
Knowledge Exchange Activities Photos - 3

2023.2.25. Gallbladder and Cholangiocarcinoma Session

2023.3.25. Renal Cancer Session