

Controlling cancer

The state of national cancer control plans in Asia

A report from the Economist Intelligence Unit



Commissioned by



About the research

With half the global incidence of cancer, Asia is facing a challenge that will put enormous stress on healthcare systems. This stress will be felt not only in developed countries in the region but increasingly in the less developed nations. Most governments recognise the coming cancer challenge in Asia and are developing national cancer control plans which set out the strategic public health response to the disease.

This report, *Controlling cancer: The state of national cancer control plans in Asia*, written by the Economist Intelligence Unit (EIU) and commissioned by Mundipharma, seeks to assess in a qualitative manner the extent and efficacy of such plans. It also aims to identify best practices that might be shared to improve control plans.

The report draws on in-depth desk research and interviews with the following healthcare officials and experts in 10 representative countries of high, medium and low income:

Professor Sanchia Aranda, president-elect, Union for International Cancer Control

Professor Jim Bishop, executive director, Victorian Comprehensive Cancer Centre, former chief medical officer, Australia

Professor Chien-Jen Chen, vice president, Academia Sinica

Dr Wanqing Chen, director, National Central Cancer Registries China, deputy director, National Office for Cancer Prevention and Control

Professor James Cleary, associate professor of medicine, University of Wisconsin

Dr Ednin Hamzah, CEO, Hospis Malaysia

Dr Weerawut Imsamran, director, National Cancer Institute, Thailand

Dr Brenda Kostelecky, health science policy analyst, US National Cancer Institute Centre for Global Health

Dr Nila Moeloek, minister of health, Indonesia

Dr Malcolm Moore, editor-in-chief, *Asian Pacific Journal of Cancer Prevention*

Professor Ian Olver, director, Sansom Institute for Health Research, University of South Australia

Dr Rengaswamy Sankaranarayanan, head, Screening Group, International Agency for Research on Cancer

Dr Saunthari Somasundaram, president, National Cancer Society Malaysia

Dr Tran Van Thuan, deputy director, National Cancer Hospital, Vietnam

Dr Ted Trimble, director, US National Cancer Institute Center for Global Health

Professor Keun-Young Yoo, honorary president, National Cancer Center, Korea

The report was written by Paul Kielstra and edited by Charles Goddard and Charles Ross. We would like to thank all interviewees for their time and insight.

Executive summary

Cancer is a common and increasingly worrying enemy in the 10 countries covered in this study: Australia, China, India, Indonesia, Malaysia, Myanmar, South Korea, Taiwan, Thailand and Vietnam. The nature of the challenge it represents, however, and how healthcare systems are responding, varies greatly by geography. This Economist Intelligence Unit study, sponsored by Mundipharma, considers in detail the cancer-related commonalities and differences in the region, in particular the content and implementation of National Cancer Control Plans (NCCPs). Its key findings include:

In developed countries cancer is a leading killer and in developing ones it is catching up at an alarming rate.

For many years now, the proportion of deaths attributable to cancer in Australia, South Korea and Taiwan has been between 25% and 30%. Although not nearly so high in the less wealthy countries in this study, the burden of cancer is growing rapidly throughout the region. The crude death rate from the disease in China, Myanmar, Thailand and Vietnam rose by over 30% between 2000 and 2012, and in China is now roughly similar to that of South Korea.

Four drivers are, to varying degrees depending on the country, increasing cancer rates in much of the region:

1. *Population ageing:* The proportion of the population over 65 was below 6% in most of the countries in this study as late as 1985. By 2040, it will be over 20% in half of them and greater than 10% in all. Already, the difference in crude and age-standardised incidence rates helps explain much of the increasing number of cancer cases that doctors face. As populations age further, this is likely to increase.

2. *Lifestyle choices:* Although across the region efforts to control tobacco made some early progress, in most countries little change in smoking rates—which are particularly high among males—has occurred since 2006. Meanwhile, a combination of dietary change and decreased physical activity has raised the number of overweight and obese individuals, bringing marked rises in cancer risk.

3. *Environmental pollution:* Air and water pollution in countries with rapidly growing economies are exacting an increased cancer burden. High-incidence locations, so-called “cancer villages”, are the most prominent manifestation, but the problem is more widespread. According to the World Health Organization’s (WHO) Global Burden of Disease data, 1.7% of all deaths in China in 2010 resulted from air-pollution induced cancers.

4. *Ongoing infectious disease*: High rates of hepatitis in the region help explain widespread incidence of liver cancer in many of the countries in this study, and human papillomaviruses are the leading cause of cervical cancer. Similarly, at a more local level, the prevalence of helicobacter pylori infection in Korea drives its high rate of gastric cancer, and liver fluke accounts for much of the liver cancer in Thailand.

The need for a plan: Money helps in the fight against cancer.

In our study, the three countries most successful at fighting cancer—as measured by comparing the number of five-year survivors with overall incidence—are also the wealthiest. Looking more closely, though, how the money is spent also matters. A study by the Organisation for Economic Co-operation and Development (OECD) found that, among developed states, the quality of governance around cancer control alone accounted for a quarter of the difference in outcomes. In our study, Thailand—with an extensive, detailed NCCP—does better than Malaysia and China, even though the latter two have higher GDP per capita.

A number of common weaknesses amid great diversity: Cancer control varies widely by geography, but several common, albeit not universal, weaknesses appear frequently, indicating areas where action is necessary.

- *A need for more and better data, and evidence-based policy*: Effective decision-making requires an understanding of the challenge that cancer represents, but only a minority of countries in this study have high-quality registry and mortality data.
- *A need for a more holistic approach to cancer care*: Most countries in this study fail in some way to provide comprehensive services across the entire range of cancer control. Perhaps ironically, some of the poorest, notably Vietnam and Myanmar, tend to focus on expensive treatment facilities while paying much less attention to

earlier and less costly interventions; wealthier countries, such as South Korea and Taiwan, on the other hand, may have extensive screening programmes but have ongoing weaknesses in prevention; all, outside of Australia, Malaysia and Kerala state in India need to integrate effective palliative care into their overall provision.

- *A need to engage more with those outside the health system*: This takes two forms. The first is winning over the population to the very idea of modern cancer control. In the majority of the countries covered in this study, poor understanding of the risks of cancer or potential treatment options, often exacerbated by cultural assumptions about the disease, lead to, *inter alia*: the adoption of behaviour with high health risks; the failure to take up screening opportunities; the use of traditional medicines which have little, if any, efficacy against cancer; and late presentation for treatment or of not using medical services at all. The other area where greater engagement is needed is to bring a wider range of stakeholders into the battle against cancer. These have proved critical to success in many countries, but in Asia—outside of Australia, Thailand and Indonesia—cancer control remains very much a health system concern.

- *A need to consider appropriate legal foundations*: Two countries in this study, Taiwan and South Korea, have formal cancer control legislation which can bring a range of advantages from providing secure budgets to helping overcome obstacles to data usage. The utility of such an approach will vary but as health systems seek to provide effective cancer control, governments should consider how formal laws might help.

Ten countries in this study provide 10 distinct cancer control stories: The cancer challenge, and how countries have responded, is highly heterogeneous in this region.

In summary, the findings are:

- *Australia*: Australia has among the highest overall cancer incidence figures in this study but

its cancer control programme is also one of the best. The latter combines a holistic approach—including effective prevention (notably in the fields of tobacco control and HPV vaccination), screening and treatment—with evidence-based strategies, multi-stakeholder involvement and the economic resources available to a rich country to shape an effective response to the disease.

- *China:* With some 20% of the world's population, China already has 27% of the world's cancer mortality. It has also been seeing a substantial increase in cancer rates from types of the disease usually associated with greater wealth, along with ongoing high rates of cancers more common in less developed countries. For many years, efforts against the disease have been sparse, but more recently the government has begun to invest substantial funds into cancer control. This is particularly evident in the country's rapidly expanding and improving registry network. Other elements of cancer control remain weak, though, with, for example, tobacco control ineffective, very little screening, treatment too expensive for many even where accessible, and palliative care rarely available.

- *India:* Although India has a lower cancer incidence than any country in this study, it has very high mortality rates even compared to other developing countries. Moreover, indications are that incidence is set to grow. On paper, India has had a comprehensive cancer control plan since the 1970s. In practice, very little of it has ever been implemented. Although the country has a good registry programme for a developing country, prevention is poor, screening opportunistic, and treatment facilities are insufficient and generally inaccessible to the poor. In general, palliative care is also rare, except in Kerala state which has a deservedly high reputation in this specialised area.

- *Indonesia:* Currently, Indonesia is performing poorly at cancer control: data is scant, prevention efforts and screening weak, and treatment facilities insufficient for the need, especially

as a majority of patients present at a late stage. Change, however, may be at hand. The government and leading stakeholders have signed a National Commitment Against Cancer, and a new, comprehensive NCCP covering 2015–2019 has been put in place with a range of goals across every area of cancer control. New programmes are also being rolled out, notably a national cervical cancer screening effort announced in April 2015. These build on one of Indonesia's rare strengths in this field, its unusually high level—for the region—of stakeholder involvement in cancer control.

- *Malaysia:* Malaysia's record on cancer control is the most difficult to assess of any country in this group. On the one hand, it has notable weaknesses: the country is secretive about its NCCP, which remains an internal health ministry document; in 2007 it shut down its national registry and now lacks comprehensive data; early detection and screening are opportunistic; education and prevention efforts have made little headway against widespread ignorance about the disease and cancer fatalism. On the other hand, the country has made substantial investments into cancer treatment facilities and is working with universities to train more oncologists; along with Australia it is the only country with a widespread HPV vaccination programme; and it has some of the best palliative care in the region. Malaysia has shown that it can excel in aspects of cancer control, but health officials need to work with other stakeholders on a more holistic approach.

- *Myanmar:* Given its recent history and level of economic development, Myanmar's cancer control is predictably weak. Although the government has told the WHO that it has an NCCP, little evidence of the plan exists on paper. Data is poor, prevention efforts are rare in practice, and access to treatment low. On the other hand, signs exist that the government wants to improve. It has invested heavily, for a country of its wealth, in modern treatment facilities and has been working with a variety of stakeholders on

a national programme to fight cervical cancer. Broader progress will depend on how effectively the government can use the resources it is willing to bring to bear.

- *South Korea:* Cancer has been the leading cause of death in South Korea since 1983. From 1996 on, the country has put in place strong anti-cancer measures with an NCCP based on specific national legislation. South Korea is particularly strong in the fields of cancer registration, early detection, and treatment. The result of these efforts has been a marked increase in cancer survival rates. On the other hand, prevention remains a weak point: over 40% of men are still smokers, and high rates of gastric cancer arise from widespread, but treatable, helicobacter pylori infection. Similarly, palliative care and survivor support require further attention.

- *Taiwan:* Taiwan has for many years benefited from a comprehensive NCCP with strong political and legislative backing. It has a long-standing registry, a variety of prevention efforts (including one of the oldest HBV vaccination programmes), extensive—if not always ideally targeted—screening programmes, and advanced treatment facilities. Overall, however, age-standardised mortality rates for cancer in the country have risen very slightly over the last two decades even as those for other major non-communicable diseases (NCDs) have dropped markedly. The main problem seems to be that a

lack of knowledge about cancer dangers in the population and cancer fatalism are leading to ongoing high levels of risk-associated behaviour and low uptake of screening opportunities.

- *Thailand:* Outside of the wealthiest countries in this study, Thailand has the most advanced and comprehensive cancer control programme. It has very good registries, as well as extensive prevention and early detection efforts. Universal healthcare helps address some cancer-care access issues. On the other hand, constrained resources inevitably have some effect: HPV vaccination is still deemed not cost-effective, for example, and treatment facilities remain insufficient for the country's needs. Palliative care is also weak, although recent government initiatives suggest that this may improve soon. Overall, though, Thailand's high five-year prevalence figures compared to other countries at a similar level of development show that good policy can stretch limited budgets.

- *Vietnam:* Vietnam has a large and growing cancer burden but is not addressing it effectively. Although it has had an NCCP since 2007, a lack of funding has meant that little of it has been implemented. The country has a few good treatment facilities, but these are overwhelmed by demand, especially as weak prevention and early detection programmes combine to drive frequently late presentation by those with the disease. Finally, palliative care is limited.

While every effort has been taken to verify the accuracy of this information, The Economist Intelligence Unit Ltd. cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report.

LONDON
20 Cabot Square
London
E14 4QW
United Kingdom
Tel: (44.20) 7576 8000
Fax: (44.20) 7576 8500
E-mail: london@eiu.com

NEW YORK
750 Third Avenue
5th Floor
New York, NY 10017
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
E-mail: newyork@eiu.com

HONG KONG
1301 Cityplaza Four
12 Taikoo Wan Road
Taikoo Shing, Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
E-mail: hongkong@eiu.com

GENEVA
Rue de l'Athénée 32
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 93 47
E-mail: geneva@eiu.com