





Universal Health Coverage (UHC) is grounded in the principle that the highest attainable standard of physical and mental health is a fundamental human right. It is a longstanding tenet of global health and has, in recent years, become the overarching framework for policies and investments in health globally and nationally (figure 1). Enshrined as Sustainable Development Goal 3.8 (SDG), UHC has been adopted as a standalone global commitment and a mechanism to make progress across a suite of other SDGs, including the elimination of poverty, education, gender equality, decent work and economic growth<sup>1</sup>.

Since 2000, there have been substantial improvements in the coverage of essential health services globally; however, the growing burden of non-communicable diseases (NCDs), including cancer, means that no country can yet claim to have fully achieved UHC². As such, there is a clear need for all governments to scale-up action and investments in health to deliver UHC by 2030. This brief provides cancer advocates with a short introduction to UHC, the high-level links with cancer control and explores the opportunities to advocate for cancer within UHC plans drawing on examples from UICC members.



## UN High-level Meeting on UHC

The first United Nations (UN) High-Level Meeting on UHC was held in New York on the 23rd September 2019. It brought together political leaders from around the world to mobilise political support and commit to achieving UHC. The resulting Political Declaration does not focus on individual diseases, instead it sets out a framework for countries to build the robust health systems necessary for UHC.

Read UICC's digest of the Declaration.



# What is Universal Health Coverage?

A 2019 World Health Organization (WHO) report identified that at least 50% of the world's population still do not have full coverage of essential health services, while around 100 million people are pushed into extreme poverty as a result of paying out-of-pocket for care<sup>3</sup>.

Central to UHC is the recognition that "the enjoyment of the highest attainable standard of [physical and mental] health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition"<sup>4</sup>. The focus on the right to health is driving calls for governments and other stakeholders to ensure that UHC planning and implementation prioritises the needs of the most vulnerable, poor and underserved first, in order to address longstanding barriers to accessing essential health services.

Recognising this, the objectives of UHC are to ensure:

- Equitable access access to a service should be determined by need, regardless of a person's ability to pay
- 2. Quality care services available should promote or improve the health of those using them
- Financial risk-protection UHC must include mechanisms to protect against financial risks so that people using health services are not pushed into poverty.

Given the current state of many national health systems, all stakeholders recognise that achieving UHC must be realistic, leading WHO and others to champion the **progressive realisation** of UHC. This entails countries making coordinated investments and policies to scale up the three 'dimensions' of population coverage, service provision and financial protection by 2030 (figure two)<sup>5</sup>.



## **Universal Health Coverage**

ambition that "all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose individuals and families to financial hardship"

## Timeline of UHC

Alma-Ata declaration identifies Primary

Health Care (PHC) as the foundation for achieving 'Health for All'

UN General Assembly adopts a resolution
on Global Health and Foreign Policy urging countries to accelerate progress towards UHC

2015

Sustainable Development Goals include target 3.8 to "achieve UHC, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all"

Declaration of Astana reiterates the importance of a primary health care approach to the achievement of UHC

 2018 Political Declaration on NCDs calls on countries to strengthen and reorient health systems to deliver UHC, including essential services for NCDs

Adoption of the First Political Declaration on UHC at the UN High-level Meeting which sets out a high-level political framework for action on UHC

2022 — WHO to develop a report on progress in achieving UHC globally

2018

2023 ) - Second UN High-level Meeting on UHC

2030 ) — Deadline for the Sustainable Development Goals

Figure 1

#### **UHC** and cancer

Globally, cancer is the second leading cause of mortality, morbidity and disability, with an estimated 18.1 million new cases and 9.6 million deaths in 2018<sup>6</sup>. In nearly every country, the cancer burden and mortality are rising, with the highest increases in lowand middle-income countries (LMICs), which now account for approximately 70% of all cancer deaths<sup>7</sup>.

The burden of cancer is already having a profound impact across all three dimensions of UHC. Access to essential cancer services is characterised by significant inequalities, both globally and nationally. It is estimated that 90% of high-income countries can provide access to the essential treatment modalities (surgery, radiotherapy, and essential medicines) for cancer patients, compared to 30% of LMICs<sup>7</sup>. This results in striking international disparities in cancer patient outcomes.

Access to radiotherapy illustrates these divides. While around 80% of cancer patients live in LMICs, these individuals are only served by approximately 5% of global radiotherapy resources<sup>8</sup>. In practical terms, this means that more than 90% of cancer patients in low-income countries lack access, despite radiotherapy being recommended for around 52% of cancer patients<sup>9</sup>. Studies further show similar disparities exist within countries and, given the drive for health equity, addressing these disparities will be an important focus within the progressive realisation of UHC.

Even where patients can physically access services, the costs associated with their use may prohibit patients from seeking care. For example, in Malaysia, the costs of accessing colorectal cancer treatment forced nearly 48% of patients' families into catastrophic health spending<sup>10</sup>. Similar national-level studies reaffirm that the costs of accessing cancer treatment and care poses a significant financial risk, both to national health systems and patients and their families<sup>11</sup>.

Globally, the most recent data suggest that the estimated annual economic cost of cancer has already reached US\$ 1.16 trillion, while the cost of lost productivity due to premature cancer deaths in BRICS countries (Brazil, Russia, China and South Africa) had reached \$46.3 billion by 2012<sup>12</sup>. However a suite of cost effective and evidence-based recommendations have been identified and which provide options for all health systems, including WHO's 'Best Buys and other recommended interventions' and the World Bank's Disease Control Priorities (DCP3).

Modelling suggests that investing in the implementation of prevention, early detection, and effective and quality treatment of cancer could have saved between US\$ 100 billion and US\$ 200 billion<sup>13</sup>. This underscores the urgent need for national UHC plans and packages to drive accelerated action and investment in essential cancer interventions to mitigate the growing health, social and economic impacts of cancer.

Three dimensions to consider when moving towards universal health coverage

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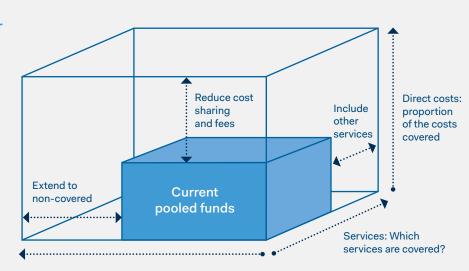


Figure 2

### Laying the foundations for UHC

With the adoption of the 2019 UN Political Declaration on UHC, governments are shifting their focus from exploring what UHC is and why to pursue it, to understanding how UHC can be achieved within their national context. All countries will need to compile and understand national data on cancer in order to development a comprehensive national UHC plan and prioritise interventions to develop a package of core UHC services.

Delivering UHC cannot be a one-size-fits-all approach, not is UHC a static end point for health systems. Countries will need to continuously review and revise national UHC packages in light of economic, epidemiological and health system changes. The journey to UHC will, however, contain a number of common steps.

The process of developing UHC plans and packages provide cancer and NCD advocates with several opportunities to make the case for the integration of essential services. Figure three, below, provides an overview of these stages and key aspects policy makers and advocates should consider.

### Stages in the development of national **UHC** plans and packages Understanding the national context and identifying inequities National high-burden cancers Underserved population groups National health goals Identifying interventions Monitoring and evaluating impacts Availablility of interventions Evidence of effectiveness **Developing targets** and cost-effectiveness and indicators Impacts on health equity Identifying data sources Understanding Multistakeholder acceptability and demand evaluations **Implementation** planning Policy and legislation needs Demands on health systems Investment needs

Addressing cancer control in Universal Health Coverage

Figure 3

## 1. Understanding the national context and identifying inequities

The first stage in UHC development should be a comprehensive assessment of national health needs and system capacities. While UHC seeks to guarantee access to essential services, stakeholders must recognise that UHC cannot provide access to all possible health interventions regardless of health benefits or added value, nor is there a one-size-fits-all approach<sup>3</sup>. Achieving UHC requires governments to identify a priority set of services and interventions that can be implemented for the whole population, delivered to a high quality, and covered by financial protection mechanisms.

Prioritising UHC packages should include a critical assessment of the national cancer control landscape using accurate and quality data. Strong national health information systems, including population-based cancer registries (PBCRs), are a primary source of this data. The process of selecting priority cancer interventions will vary greatly by country, but should draw on key information including:

Underserved groups – UHC planners need
to understand which groups are currently
underserved by health systems and those that are
most vulnerable to catastrophic health spending.
PBCRs can be an important source of data here,
as they can help identify differences in the burden
of disease and treatment outcomes across
different geographies as well as social, economic
and cultural groups.

- National disease burden data understanding which cancers account for the greatest morbidity, mortality and health spending nationally is essential. It is also important to track how the national cancer burden is changing over time to provide a foundation for comprehensive cancer control planning through to 2030 and beyond.
- National health goals Planners and policy makers should identify existing plans or strategies that provide a foundation for developing UHC strategies. For cancer advocates, a national cancer control plan (NCCP) is a key advocacy resource to help identify priority national disease types, interventions and budgetary requirements.

The UHC planning process provides an opportunity for cancer advocates to spotlight where and how cancer patients are at risk of being 'left behind' in their national health system. In many LMICs, investments in cancer have been limited by misconceptions that cancer is too complex or costly to address effectively, particularly where there is strong public and political focus on communicable disease programmes. Engaging patients and clinicians in advocacy can be very powerful in this context, as they are able to voice the needs of patients and communities at risk of being left behind.



## 2. Identifying and prioritising cost-effective interventions

Over time, UHC service packages will need to evolve to respond to epidemiological changes and developments in health systems. Decision-makers will need to continually review national disease burden data, expenditure and equity tracer indicators to refine and expand national packages to meet the needs of the population. Throughout this process it is important to consider:

- Interventions to address priority national cancers – drawing on disease burden data, the prioritisation process should consider interventions for priority national disease types from across the cancer control spectrum, including primary prevention, early detection and diagnosis, treatment, survivorship and palliative care.
- Impacts on equity nationally effectively addressing cancer and other NCDs will require an integrated approach with other health services. Particular attention should be paid to reducing inequalities in coverage of cancer prevention programmes (such as vaccination and tobacco control programmes), access to cancer early detection, quality treatment and care, as well as monitoring out-of-pocket spending for cancer and its impact.
- Acceptability and demand significant disparities exist in cancer incidence and survival across and within countries. The social determinants of cancer have largely focused on exposure to risk factors; however, they also have significant implications for patients' ability and willingness to access essential services. For example, women in Colombia with lower levels of education are five-times more likely to die of cervical cancer, compared to women with highlevel education<sup>14</sup>. The development of UHC plans and service packages will need to acknowledge and address these existing socio-economic and cultural barriers.

Effectiveness and cost-effectiveness of interventions – within the 'Best Buys' and other WHO guidance documents (figure four) there are a number of different options that countries can select to make the most effective use of current health system resources. Cancer advocates can encourage the linking of cancer control interventions with other areas of health, such as the integration of cervical cancer screening within HIV/AIDS programmes, ensuring HPV and HBV vaccination within national vaccination programmes and implementing fiscal policies and updating legislation to reduce exposure to cancer risk factors.



Cost-effectiveness studies have an important role in planning for UHC. The principle behind cost-effectiveness analyses is to provide decision-makers with information on the best value investments by estimating the costs and health gains of alternative interventions. Its goal is to support decision-makers in selecting and prioritising the allocation of resources.

However cost-effective analyses should not be the sole basis for decision-making to select interventions for the prevention and control of NCDs, including cancer. Effectiveness, budget impact, safety, feasibility of service delivery, relevance, acceptability and equity should all be considered in the development of UHC service packages and this information is also key to 'real world' decision making by national governments, alongside development indicators and resource levels.

#### 3. Implementation planning

The ability to effectively roll-out services is likely to shape in large part which interventions decision-makers include within UHC packages. As such, it is useful for cancer advocates to understand and recognise the demands that proposed interventions will have on health systems including:

- Policy and legislation requirements several
  of the interventions included in figure four
  require supporting policy or legislation changes
  in order to be effective. These can include
  increased taxation of unhealthy products such as
  tobacco, alcohol or sugar-sweetened beverages,
  or reforms to improve access to controlled
  medicines for pain relief. International and country
  success stories provide powerful resources to
  support advocacy for these measures.
- Health system infrastructure UHC discussions have focused largely on the role of primary health care (PHC) and the use of a PHC-approach as a framework for investing in health systems and building capacities to deliver UHC sustainably. Since the Alma-Ata Declaration, PHC has been considered the cornerstone of health for all3 as it is the entry point for most patients to the health system and the recent Astana Declaration re-emphasised the link between PHC and UHC. While a sole focus on PHC would limit effective cancer control nationally, the PHC approach set out in the Declaration provides a robust framework to advocate for the progressive realisation of cancer services, including strengthening referral networks to multimodal treatment, including investments in more complex interventions like surgery and radiotherapy which have largely been missing to date.
- Human resources for health developing the human resources required for comprehensive cancer prevention and management is a long-term process, but must be an essential part of UHC planning. The training of specialist staff through the development of national, regional and global curricula and their retention (including adequate remuneration and continuous education), will be critical to achieving UHC. This should leverage existing international and regional programmes, such as those provided by the Global Initiative for Cancer Registries, and integrating these into sustainable national strategies to strengthen knowledge transfer and the skills of on human resources for health.
- Financial demands all national UHC packages will be limited to some extent by the costs of interventions. For cancer advocates, persistent misconceptions that cancer services are too expensive, particularly in LMICs may limit the willingness to act. In response, it will be essential to marshal the evidence on the cost-effectiveness of essential cancer services. For example, implementing a basic package of palliative care could be achieved for an investment of US\$3 per person in LMICs<sup>15</sup>, while investments in developing radiotherapy facilities in LMICs could be recouped within 10 to 15 years in LMICs and has the potential to save 26.9 million life years<sup>16</sup>.



## **Navigating cancer interventions**

Figure four brings together the WHO's 'Best Buys and other recommended actions' and global guidance documents developed by the WHO to provide advocates with a framework to support advocacy planning. The interventions include the 'best buys' and 'effective interventions' and have been categorised according to WHO's classification of health system capacities (tiers 1, 2 and 3)<sup>17</sup>, reflecting the ability of different countries to successfully implement these measures. The 'Best Buys' provide a valuable foundation for advocacy on cancer control but are not an exhaustive list of interventions and cancer advocates can find further interventions in DCP3.

#### Matrix of WHO 'Best buy' and 'effective interventions'

Best Buy	Tier 1	Tier 2	Tier 3	Global guidelines
Tobacco control				
Increase excise taxes and prices on tobacco products	Υ	Υ	Υ	MPOWER
Implement plain/standardised packaging and/or large graphic health warnings on all tobacco packages	Υ	Υ	Υ	MPOWER
Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship	Υ	Υ	Υ	MPOWER
Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport	Υ	Υ	Υ	MPOWER
Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke	Υ	Υ	Υ	MPOWER
Provide cost-covered, effective and population-wide support (including brief advice, national toll-free quit line services) for tobacco cessation to all those who want to quit	Υ	Υ	Y	MPOWER
Alcohol control				
Increase excise taxes on alcoholic beverages	Υ	Υ	Υ	SAFER
Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)	Y	Υ	Υ	SAFER
Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)	Υ	Υ	Υ	SAFER
Enact and enforce drink-driving laws and blood alcohol concentration limits via sobriety checkpoints	Υ	Υ	Υ	SAFER
Provide brief psychosocial intervention for persons with hazardous and harmful alcohol use	Υ	Υ	Υ	SAFER
Physical activity				
Implement community wide public education and awareness campaign for physical activity which includes a mass media campaign combined with other community-based education, motivational and environmental programmes aimed at supporting behavioural change of physical activity levels	Y	Y	Y	<u>ACTIVE</u>
Provide physical activity counselling and referral as part of routine primary health care services through the use of a brief intervention	Υ	Υ	Υ	<u>ACTIVE</u>

Best Buy	Tier 1	Tier 2	Tier 3	Global guidelines
Vaccination				
Vaccination against human papillomavirus (2 doses) of 9–13-year-old girls	Υ	Υ	Υ	WHO vaccine position papers
Prevention of liver cancer through hepatitis B immunisation	Υ	Υ	Υ	WHO vaccine position papers
Reduce unhealthy diet				
Reduce sugar consumption through effective taxation on sugar-sweetened beverages <sup>1</sup>	Y	Y	Y	Follow-up to the high-level meetings of the United Nations General Assembly on health-related issues
Eliminate industrial trans-fats through the development of legislation to ban their use in the food chain	Υ	Υ	Υ	REPLACE

Screening and early detection				
Prevention of cervical cancer by screening women aged 30–49, either through:				
Visual inspection with acetic acid linked with timely treatment of pre-cancerous lesions	Υ	Y		Guidelines for screening and treatment of precancerous lesions for cervical cancer prevention
Pap smear (cervical cytology) every 3–5 years linked with timely treatment of pre-cancerous lesions		Y	Y	Guidelines for screening and treatment of precancerous lesions for cervical cancer prevention
Human papillomavirus tests every 5 years linked with timely treatment of pre-cancerous lesions	Υ	Y	Y	Guidelines for screening and treatment of precancerous lesions for cervical cancer prevention
Screening with mammography (once every 2 years for women aged 50-69 years) linked with timely diagnosis and treatment of breast cancer		Y	Y	WHO position paper on mammography screening
Oral cancer screening in high-risk groups (for example, tobacco users, betel-nut chewers) linked with timely treatment	Y	Υ	Y	
Population-based colorectal cancer screening, including through a faecal occult blood test or endoscopy, as appropriate, at age >50, linked with timely treatment <sup>2</sup>			Y	Colorectal cancer screening

<sup>1.</sup> The NOURISHING database, developed by World Cancer Research Fund International, also provides a useful compilation of policies to promote health diets and reduce obesity

<sup>2.</sup> It should be noted that this intervention may only be applicable to high-risk groups and cost-effectiveness analyses are not currently available

Best Buy	Tier 1	Tier 2	Tier 3	Global guidelines
Treatment				
Treatment of colorectal cancer stages I and II with surgery +/- chemotherapy and radiotherapy	Υ	Υ	Υ	See national guidelines and WHO Model Essential Medicines Lists
Treatment of cervical cancer stages I and II with either surgery or radiotherapy +/- chemotherapy	Υ	Y	Y	See national guidelines and WHO Model Essential Medicines Lists
Treatment of breast cancer stages I and II with surgery +/- systemic therapy.	Y	Y	Y	See national guidelines and WHO Model Essential Medicines Lists

Palliative care					
Basic palliative care for cancer: home-based and hospital care with multi-disciplinary team and access to opiates and essential supportive medicine	Y	Υ	Υ	Guidelines for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents  Planning and implementing palliative care services: a guide for programme managers	

Figure 4

#### 4. Monitoring and evaluating impact

The final stage of UHC development should focus on the monitoring and evaluation of national plans and packages. Monitoring and evaluating the impact of UHC will be an iterative process and, over the course of UHC planning and implementation, key elements should be considered including:

- Targets and indicators many governments are currently identifying which UHC metrics (population coverage, package size, financial protection) will be undertaken initially as part of the progressive realisation of UHC in the medium- to long-term. Thus, accelerated action for cancer will look different in each country in response to different health system capacities, but each country should have clear and measurable targets and indicators to track progress and report back periodically.
- Multistakeholder engagement the input of civil society groups (including patients, clinicians and community groups) should be a core component of the development of UHC policy goals, benefit packages, and monitoring and evaluation in order to ensure that services are most effectively responding to patient needs. In this respect, it is important for governments to establish multistakeholder mechanisms to engage different stakeholders to elicit input and safeguard the transparency of the UHC development process.



### **Driving change**

Countries around the world have already begun to take action to achieve UHC. Included below are several short case studies on how advocates from across the cancer control community are working to drive change. To share your organisation's experiences with the cancer control community, please contact advocacy@uicc.org.



Kenya: Laying the foundations for cancer services within UHC pilots

In 2018, President Uhuru Kenyatta declared UHC to be a national priority in Kenya, as part of his 'Big Four Agenda' for national sustainable development. Under this initiative, the Government of Kenya has committed to make strategic investments in health to ensure that all residents of Kenya can access the essential health services they require by 2022<sup>18</sup>. Following the announcement, the Ministry of Health of Kenya established a department for UHC strategic oversight and monitoring. This body was responsible for conducting a national stakeholder consultation on which services should be integrated into the national UHC package to be piloted in four counties nationally.

Using this opportunity, the Kenyan Network of Cancer Organisations (KENCO) focused their advocacy on aligning existing cancer services, including those identified in the updated national cancer control strategy. Coordinating with colleagues within their network and contacts in government, KENCO submitted a response to this consultation, highlighting the need to drive improvements in public education, particularly around health promotion and disease prevention to reduce the long-term burden on health facilities and systems. This response was also shared with contacts within the Ministry of Health technical teams, with whom KENCO has long working relationships.

The team also worked with partners in the NCD Alliance of Kenya (NCDAK) to coordinate a roundtable discussion in early 2019 on opportunities to integrate core services for cancer and other NCDs, including HPV vaccination, improving public health education and early detection. The report from this roundtable was disseminated by NCDAK and counterparts in the Ministry of Health to seven counties and healthcare providers to help shape their UHC implementation process.

The current Kenyan UHC pilot package includes full coverage of medicines on the national essential medicines list for cancer and palliative care, and access to radiotherapy (in Nairobi) and surgery is covered under the expanded National Hospital Insurance Fund. The pilot period will end in October 2019 after which the government will conduct a review to shape the national UHC package.

Read the full case study here.



Philippines: leveraging legislation to bring cancer control to scale

The journey to UHC in the Philippines began with the implementation of a 'Medicare' health insurance in 1971. In 1995, the National Health Insurance Act paved the way for the creation of the Philippine Health Insurance Corporation which manages PhilHealth and was enacted to provide social health insurance coverage for all Filipinos. While coverage had increased to 82% by 2009, conditions that resulted in prolonged hospitalisation and medical care still posed major financial hardship.

In response to civil society pressure, PhilHealth introduced the 'Z benefits' package which covered care for breast, prostate, cervical and childhood cancer (Acute Lymphocytic Leukaemia) and in 2015, colon and rectum cancers were added. In February 2019, the Government of the Philippines passed a UHC law to reform and strengthen the health care system so all Filipinos will receive the health care they need, when they need it, without suffering undue financial difficulties. The focus of the law was twofold: to provide automatic coverage of all Filipinos in PhilHealth and to strengthen the national integrated care network (encompassing both service delivery systems and financial protection mechanisms) across both public and private facilities.

In the same month, the National Integrated Cancer Control Act was also passed into law in recognition of the complexity of cancer care and the urgent need to prepare for a projected increase of 80% in cancer incidence by 2030. This law provides a guiding framework for integrated cancer control activities and comprehensive services in the cancer continuum of care, for all cancers and for all ages. Cancer is the third leading cause of morbidity and mortality in the Philippines and continues to be a major source of catastrophic out-of-pocket spending of between 50-70%.

Throughout the development and legislative processes of these laws, civil society organisations were actively involved in driving the advocacy initiatives and creating a supportive environment. UICC members Philippine Cancer Society, Cancer Warriors Foundation and I Can Serve were founding members of the Cancer Coalition which served as the convenor of dialogues with other key stakeholders: legislators, government, private sector, cancer patient support organisations and professional societies, to promote the rights and needs of adult and paediatric cancer patients and survivors. Throughout this process, advocates adopted a 'collect, connect' strategy which continuously gathered information, perspectives and partners to sustain momentum and build consensus on priorities for cancer control and cancer care pathways in the country. This was essential to build a unified cancer community voice and ensure a strong sense of ownership of the law as a pre-requisite for successful implementation of the Act's provisions.

Read the full case study here.





#### Malaysia:

#### Scaling up self-sampling cervical cancer screening

Since 2010, Malaysia has been conducting a national HPV vaccination programme which has been very successful, covering between 83% and 91% of the target population each year<sup>19</sup>. While this will reduce the long-term burden of cervical cancer, it was noted that participation in the national opportunistic screening programme remained low with long-term implications for the stage at which women are being diagnosed. There were clear opportunities for an overhaul of the cervical screening program to reduce the impact of a preventable cancer nationally.

The adoption of a national 'standard' cervical cancer screening programme adapted from high-income countries did not work, as Malaysia lacked the infrastructure and human resources to implement it in full. In 2017, the Ministry of Health was starting to review and consider changes to the existing cervical cancer screening offer, including a formal commitment to implement HPV DNA testing in the updated NCCP. Around the same time, research undertaken at the University of Malaya found that self-sampling was effective and acceptable to women and presented an alternative model.

The team worked closely with the Ministry to make the case for self-sampling, engaging extensively with the Family Development and Primary Health Care Sectors within the Ministry as their collaboration would be critical to the success of any self-sampling program. The result was Project Rose, which piloted self-sampling in government-run health clinics across Malaysia. This was achieved with technical support from experts at VCS Foundation Ltd. who had conducted similar programmes in other countries. This led to the launch of the Rose Foundation with the focus of continuing to support cervical cancer screening, especially in rural areas, in Malaysia by working closely with stakeholders.

#### **Acknowledgements**

This brief has been written by Sonali Johnson, Rosie Tasker (Union for International Cancer Control), Eleonora Feletto, Paul Grogan and Karen Canfell (Cancer Council New South Wales).

The authors wish to thank the following individuals who provided input and commentary on the brief: Carmen Auste (Cancer Warriors Foundation), Andre Illbawi (World Health Organization), David Makumi (Kenyan Network of Cancer Organizations), Serena Patel (Boston University), Marion Saville (VCS Foundation), Christine Sitati (Kenyan Network of Cancer Organizations), Dario Trapani (University of Milan), Catherine Wachira (Kenyan Network of Cancer Organizations), Zuzanna Tittenbrun (Union for International Cancer Control) and Yin Ling Woo (University of Malaya).

- United Nations. Political Declaration of the High-level Meeting on Universal Health Coverage "Universal health coverage: moving together to build a healthier world". 2019 https://www.un.org/ pga/73/wp-content/uploads/sites/53/2019/09/UHC-HLMsilence-procedure.pdf [Accessed 23.09.2019]
- World Health Organization. Universal health coverage. Preparation for the high-level meeting of the United Nations General Assembly on universal health coverage. Report by the Director-General (A72/14). Geneva, 2019 http://apps.who.int/gb/ebwha/pdf\_files/ WHA72/A72\_14-en.pdf [Accessed 09.07.2019]
- World Health Organization. Universal health coverage fact sheet. Geneva, 2019 https://www.who.int/news-room/fact-sheets/ detail/universal-health-coverage-(uhc) [Accessed 10.07.2019]
- World Health Organization. Constitution of the World Health Organization. Geneva, 2006 https://www.who.int/governance/eb/ who\_constitution\_en.pdf [Accessed 10.07.2019]
- Prager GW, Braga S, Bystricky B, Qvortrup C, Criscitiello C etal. (2018) Global cancer control: responding to the growing burden, rising costs and inequalities in access. ESMO Open. 2018;3 https://esmoopen.bmj.com/content/esmoopen/3/2/e000285.full. pdf
- Ferlay J, Ervik M, Lam F, Colombet M, Mery L, et al. (2018). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer.https://gco.iarc.fr/today [Accessed 05.07.2019]
- World Health Organization. Cancer Fact sheet. Geneva, 2018 https://www.who.int/news-room/fact-sheets/detail/cancer [Accessed 05.07.2019]
- Farmer P, Frenk J, Knaul F, Shulman L, Alleyne G, et al. (2010) Expansion of cancer care and control in countries of low and middle income: a call to action, The Lancet 376(9747):1186-1193 http://www.thelancet.com/article/S0140-6736(10)61152-X/ abstract [Accessed 24.04.2017]
- Zubizarreta EH, Fidarova E, Healy B, Rosenblatt E (2015) Clin Oncol (R Coll Radiol) 27(2):107-14 https://www.ncbi.nlm.nih.gov/ pubmed/25455407 [Accessed 24.04.2017]
- Azzani M, Yahya A, Roslani A, Su T (2017) Catastrophic Health Expenditure Among Colorectal Cancer Patients and Families: A Case of Malaysia. Asia Pacific Journal of Public Health, 29(6) 485–494

- de Souza JA, Hunt B, Asirwa FC, Adebamowo C, Lopes G (2016) Global Health Equity: Cancer Care Outcome Disparities in High-, Middle-, and Low-Income Countries. Journal of Clinical Oncology 34(19):6-12
- Pearce A, Sharp L, Hanly P, Barchuk A, Bray F, et al (2018)
   Productivity losses due to premature mortality from cancer
   in Brazil, Russia, India, China, and South Africa (BRICS): A
   population-based comparison. Journal of Cancer Epidemiology
   (53) 27-34
- 13. Stewart BW, Wild CP, editors. World Cancer Report 2014. Lyon: International Agency for Research on Cancer; 2014
- International Agency for Research on Cancer. Reducing social inequalities in cancer: evidence and prioritise for research. Lyon, 2019 http://publications.iarc.fr/Book-And-Report-Series/larc-Scientific-Publications/Reducing-Social-Inequalities-In-Cancer-Evidence-And-Priorities-For-Research-2019
- 15. Knaul et al (2018) The Lancet Commission on Palliative Care and Pain Relief findings, recommendations, and future directions. The Lancet, 6(S5-S6). https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(18)30082-2/fulltext
- Atun R, Jaffray D, Barton M, Bray F, Baumann M, et al (2015)
   Expanding global access to radiotherapy. The Lancet Oncology, 16(10) P1153-1186
- World Health Organization. National cancer control programmes Policies and managerial guidelines. Geneva, 2002. https:// www.who.int/cancer/publications/nccp2002/en/ [Accessed 01.10.2019]
- Ministry of Health of Kenya (2019) Refocusing on quality of care and increasing demand for services; Essential elements in attaining universal health coverage in Kenya. Available from http:// www.health.go.ke/wp-content/uploads/2019/01/UHC-QI-Policy-Brief.pdf [Accessed 24.07.2019]
- Muhamad NA., Buang SN, Jaafar S, Jais R, Tan PS, et al. (2018).
   Achieving high uptake of human papillomavirus vaccination in Malaysia through school-based vaccination programme. BMC public health, 18,1402 https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC6303856/ [Accessed 02.08.2019]

