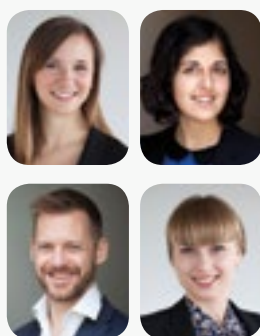


INCREASING ACCESS TO CANCER CARE: HOW CAN WE GUIDE AND TRACK ACTIONS BY PHARMACEUTICAL COMPANIES?

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The Access to Medicine Index has been analyzing 20 of the largest R&D-based pharmaceutical companies by revenue on how they address access to medicines in LMICs for over ten years. Cancer has previously not been included within the disease scope of the Index. As the burden of cancer grows in low- and middle-income countries, the decision was made to include cancer in the 2018 index. The complexity of cancer, however, posed a number of challenges that needed to be addressed. By including cancer, the Index aims to incentivize companies to engage in strong, sustainable access programmes for cancer care, to support the appropriate strengthening of health systems to accommodate the latest treatments, and to find ways of facilitating access to the most effective medicines currently on the market.

Cancer incidence and mortality is on the rise in low- and middle-income countries (LMICs). Over half of all new cancer cases (57%) and cancer deaths (65%) in 2012 occurred in LMICs (1). This is likely to increase due to population ageing and decreasing mortality from other causes. The challenges of providing cancer care in LMIC settings are compounded by poor disease surveillance and the relatively poor strength of local health systems.

While national governments shoulder the main responsibility for putting cancer care systems into place, pharmaceutical companies also have a unique role to play. There is a clear opportunity to motivate such companies – the developers and manufacturers of life-saving oncology products – to do more for cancer patients in LMICs.

At the Access to Medicine Foundation, our mission is to stimulate pharmaceutical companies to improve access to medicine for the people living in low- and middle-income countries. We identify ambitious but achievable actions that pharmaceutical companies can be expected to take in this regard – which we publish as a clear, consensus-based framework that pharmaceutical companies can use to organize their access-to-medicine activities.

The Foundation is an independent, non-profit organization funded by the UK Department for International Development, the Bill & Melinda Gates Foundation, the Dutch Ministry of

Foreign Affairs, the Dutch Ministry of Health, and the Dutch National Postcode Lottery. Our in-house research team is responsible for the analysis of pharmaceutical companies and operates fully independent of our donors and the pharmaceutical industry.

Every two years, we measure how well pharma companies are meeting the expectations set out in our framework, publishing our findings in the Access to Medicine Index: a ranking of 20 of the world's largest research-based pharmaceutical companies (by revenue) on how they make medicine more accessible in LMICs.

By publicly recognizing the best performers, the Index spurs pharmaceutical companies to compete to be the best. The Index has now been published five times, starting in 2008. Each iteration has found evidence that companies are increasing their focus on access to medicine in LMICs.

Cancer has never before been included in the scope of the Index. However, given its growing importance on the access agenda, the decision has been made to include cancer in the next index. In this article, we explore the challenges this posed and how they have been addressed.

How the Index works

The Access to Medicine Index measures companies across seven areas of behaviour linked to access to medicine:

strategy, governance, R&D, pricing, licensing, capacity building and donations. It captures company behaviour in relation to defined sets of countries, diseases and products across indicators derived through multi-stakeholder consensus. Data for each metric is scored and then weighted before being aggregated into the final ranking of the Access to Medicine Index. During the review of the methodology for each Index, our research team consults with specialists from multilateral organizations, governments, research institutions, the pharma industry, NGOs, patient organizations and investors, among others.

Why address cancer now?

In 2015, a decision was made not to include cancer in the 2016 Access to Medicine Index. This was not straightforward: some stakeholders felt that the Index should continue to focus on the highest-burden or neglected diseases, while others expressed strong views that companies' access initiatives related to cancer needed to be mapped and encouraged. The role of R&D-based companies in access to cancer care was then unclear. This decision was provisional, to be reviewed before the 2018 Index.

The majority of deaths from cancer occur in LMICs; in Africa alone, cancer kills 50% more people per year than malaria (1). In 2015 there was a significant increase in the number of cancer medicines included on World Health Organization's Model Essential Medicines List (WHO EML); three more were added during the 2017 update (2). Research and development (R&D) activity for cancer treatment has expanded rapidly, and the global oncology market is expected to grow from around US\$ 105 billion to US\$ 150 billion by 2020 (3). As countries implement national cancer control plans it becomes increasingly important for pharmaceutical companies to play a role in ensuring access to key products for cancer and to contribute to the development of resilient health systems.

With these factors in mind, the Foundation analyzed available data from companies about their current access to cancer activities. In May 2017, the Foundation published the first analysis of company engagement in access to cancer care. This study found that 16 of the 20 companies in the Access to Medicine Index are taking action to improve access to cancer care in LMICs (4). The results of this study demonstrate clear company engagement and an opportunity to support actions and efforts. The clear evidence of company activity, in tandem with the reasons outlined above, made a strong case for the inclusion of cancer in the 2018 Access to Medicine Index.

Challenges of including cancer in the Index

An overarching concern with cancer care is how to account for the varying strength of national healthcare systems. For

example, China, India, and Brazil have relatively strong health systems, which are better equipped for the management of cancer, while countries such as Kenya and South Africa do not yet meet the basic infrastructure requirements for cancer treatment (5). Many LMICs also place low prioritization on cancer. Many countries do not yet have, or are in the process of implementing a cancer control strategy or plan (6).

Companies may be less likely to want to engage in countries with low government prioritization or support, or in countries with less existing donor and NGO presence. They may show preference for countries with better capacity for introducing cancer products. Conversely, some companies may also see a long-term benefit from engaging in weaker health systems, thereby building and securing future markets for their medicines. For example, although Kenya currently does not meet infrastructure standards for cancer treatment, it receives more attention from company capacity building initiatives than other countries in scope (4), likely due to government prioritization, an active network of partners, and continued capacity improvement over recent years. The 2018 Index will need to acknowledge this context and how companies' initiatives reflect the state of national health systems.

While taking this country variation into consideration, the research team of the Foundation considered two critical issues when developing its framework of metrics. First, which cancers should companies be focusing on? Second, how should companies be strengthening health systems for managing cancer?

Bringing cancer into scope: by disease burden, the existence of key products or by the need for R&D?

Let's start with the first issue: which cancers should companies be focusing on, and hence be included in the Index? To date, the Access to Medicine Index has largely based its disease scope on global disease burdens (calculated in terms of Disability Adjusted Life Years, or DALYs). The main exceptions to this rule are the Neglected Tropical Diseases, where WHO prioritization is the defining criterion. If a disease is in scope, then the Index will examine how companies are addressing access to medicine for this disease, either through R&D, or by addressing the availability and affordability of existing products.

However, our team soon established that a unique approach would be needed for cancer – as “cancer” refers to a range of diseases with varying treatment options and disease burdens. Some cancers with the highest incidence globally (e.g., liver (1)) have few effective pharmaceutical treatment options, whereas other cancers with lower global incidence (e.g., Kaposi sarcoma) have several. The experts we talked to advised separate approaches for including cancers in the disease scope: one product-based approach to identify cancers with

effective products on the market where access is an issue; and one incidence-based approach for cancers where further R&D should be incentivized.

Which low-incidence cancers have clinically effective products on the market?

In 2014, the World Health Organization invited the Union for International Cancer Control (UICC) to review the existing paediatric and adult WHO EML. This was the first full review of cancer medicines for this list since 1999. Choices for inclusion were made using a combination of incidence data and potential impact of treatment. This brought the total number of cancer medicines on the WHO EML to 46 in 2015. In 2017, three more cancer medicines were added to the WHO EML, bringing the current total to 49. The Foundation team has used this recently updated WHO EML to bring cancers with high-impact available products into scope.

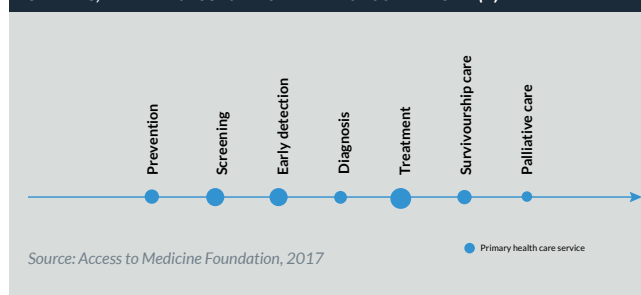
However, even products defined as “essential” by WHO often require well-equipped healthcare systems in order to be used effectively. For some products to be prescribed, patients must undergo genetic testing. For other products, particularly chemotherapy drugs, they are most effectively used in combination with one another. We will need to consider the varied strength of health systems when making specific recommendations on companies’ approaches for registration and affordability.

Which cancers need further R&D for LMIC settings?

Oncology is one of the main focus areas for R&D by pharmaceutical companies. Pipelines are big: we have observed 22 FDA approvals for cancer products from companies in the Index since 2015, compared to only two for cardiovascular diseases (7). The substantial focus in this area of R&D likely reflects the large commercial market potential for cancer treatments in high-income countries (HICs). While this serves as a strong incentive to drive innovation, it does not guarantee that successful products will be suitable for the needs and health system capacities of LMICs. This is particularly likely where new cancer treatments are targeted therapies and immunotherapies. Such products introduce new complexities into health systems, which may not be equipped to deal with them.

The Index aims to stimulate companies to address the needs of LMICs in their R&D projects. To do this, we need to bring cancers where LMICs have a clear R&D need into scope. Yet this R&D wish-list does not yet exist. To take a first step into this gap, we have developed an approach for selecting those cancers which impact LMICs to the greatest degree. One of our aims in publishing this list is to encourage companies to invest in oncology R&D specifically for LMICs.

Figure 1: Effective cancer management requires a sequence of health services, referred to as “the cancer continuum of care.”(4)



Our prioritization focuses on cancers with the highest global incidence rates. When it comes to incidence rates, stakeholders such as the UICC consider global data more appropriate than data from individual LMICs, which is typically weaker due to poor disease surveillance. Plus, country-level incidence data may be masked by communicable diseases. We have also included cancers with high incidence rates in countries in scope (despite the poor data) where these cancers are linked to infections that impose disproportionately high disease burdens on LMICs.

We have spoken with experts to explore whether certain types of R&D projects (such as immunotherapies or highly personalized treatments) should be considered irrelevant to the needs of populations in LMICs due to the complexity of deploying these therapies. Some argued that there is no clearly defined category of R&D projects that could be reasonably excluded from analysis in all countries within the Index scope. Furthermore, excluding such projects would risk potentially disincentivizing companies from also targeting LMIC needs when carrying out these types of R&D. As such, the pragmatic approach is to include all projects in our criteria for including cancers in this aspect of the disease scope.

Evaluating company engagement in capacity building for cancer care

Let’s turn our attention to the second issue: how to evaluate company engagement in capacity building for cancer care. When thinking about the disease scope, the comparative strength of national health systems has been a recurring theme. In the WHO’s Global Status Report on NCDs in 2010, survey results showed “poor availability of basic technologies and treatment, particularly for cancer and diabetes in primary care, in many low-income and lower-middle-income countries (8).” Management of NCDs has typically been less prioritized by governments, leaving gaps in the strength of health systems to effectively manage them. Health systems must be able to provide access to not just medicines, but also to comprehensive care.

This can be particularly complicated for NCDs due to the wide range of infrastructure, medical devices, and skilled staff required. For cancer, health systems need to provide a

Table 1: The process for the 2018 Access to Medicine Index Methodology Review

2018 Access to Medicine Index Methodology Time Table	
Methodology Proposal Review by ERC #1	13 June 2017
Respond to ERC methodology feedback (any methodological changes)	June/July 2017
Methodology Proposal Review by ERC #2	18 July 2017
Final Methodology Report Published	October 2017

sequence of health services, often referred to as “the cancer continuum of care” (Fig. 1). Even the treatment step is more complex than dispensing medicines. Biologics, for example, must be kept cold and administered intravenously in specialty treatment centres to manage any adverse events (5).

The need to strengthen health systems for managing cancer is very clear. While this is primarily the role of governments, pharmaceutical companies are well-positioned to take on an important supporting role in building capacity for comprehensive cancer care. There are opportunities for initiatives all along the continuum of care, from training healthcare professionals to investing in infrastructure. Indeed, our May 2017 study *Improving Access to Cancer Care* found that 50% (71 out of 129) of companies’ access initiatives relating to cancer involve capacity building (4). Companies are aware of their potential role in capacity building for cancer and are taking action. The questions the 2018 Index faces are: how to identify high-quality initiatives and how to encourage companies to adopt successful models.

In consultation with stakeholders, we have developed a set of criteria to be used for the qualitative evaluation of capacity building initiatives. This includes investigating whether among other factors initiatives are carried out in partnership, aim for sustainability and, particularly relevant in the case of cancer, how company initiatives address the needs of and strengthen the capacity of the local healthcare system. The 2018 Index will place a greater emphasis on health system strengthening initiatives in part because of their importance in supporting cancer care.

Conclusion and next steps

The Expert Review Committee (ERC) of the Access to Medicine Index considered again whether or not to include cancer in the 2018 Access to Medicine Index on 13 June 2017. Taking into account the challenges identified by this article, the ERC recommended yes, it should be included. The timing of this decision coincides well with the increasing attention and prioritization of cancer by the global health community, exemplified by the adoption of a resolution on cancer prevention and control by the WHO in May this year (9).

Pharmaceutical companies have a clear, supportive role to play and are already active. The inclusion of cancer will provide us with new opportunities to encourage companies to

do more and to show them how their peers are harnessing their strengths in product development, deployment and health system strengthening.

The approaches laid out here reflect the methodology for the inclusion of cancer in the 2018 Index, as presented in our Methodology Report published in October of this year. Our goal is to incentivize companies to engage in strong, sustainable access programmes for cancer care, to support the appropriate strengthening of health systems to accommodate the latest treatments, and to find ways of facilitating access to the most effective medicines currently on the market. The inclusion of cancer in the 2018 Index is an important step towards this goal. The 2018 Access to Medicine Index will be published in November 2018. ■

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