



THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE ■



MSD Global Oncology Policy 2019 Grants Program

Report of the Inaugural Forum

March 2021



1. Introduction

1.1 The MSD Global Oncology Policy 2019 Grants Program and Forum

The global health crisis induced by the COVID-19 pandemic has elevated tensions in healthcare delivery and supply chains, reducing access to essential healthcare services for cancer care such as preventative screening, chemotherapy and surgery. These can have long lasting impacts on patients, health systems and society at large. Their consequences must be considered alongside the direct health effects of COVID-19 itself, and the social isolation and financial impoverishment caused by the measures needed to mitigate its spread. Keeping cancer care as a focal priority during the ongoing health crisis and in the years to come requires careful and nuanced consideration. It calls for action to be taken by public institutions and governments to improve access to and financing for essential healthcare services for populations at increased risk of poor health outcomes.

In this context, the MSD Global Oncology Grant Program aims to ensure that the research it supports is far-reaching and informs future cancer policy decisions. In addition to completing original research, grant recipients participate in dialogue to explore common themes and issues that arise across the different countries which are intended to shape policy decisions that can be local, regional or international. In December 2020, at the culmination of the inaugural year of the Program, LSE virtually convened the inaugural MSD Global Oncology Policy Grants Program Forum. The objective of the Forum was to disseminate research findings from the inaugural grant recipient cohort, stimulate discussions around oncology policy, and shape future dialogue around policy decisions. This meeting gave researchers from around the world an opportunity to showcase their research, providing a platform to elevate its profile and influence on the global cancer policy agenda. While the grants program has a long-term horizon beyond COVID-19, the severe impact of the pandemic on governments, economies, and health systems has been reflected in the discussions and context of the research findings.

The inaugural MSD Global Oncology Policy Grants Program Forum included research presentations from researchers in four global settings: David Taylor from the United Kingdom, Shuli Brammli-Greenberg from Israel, Axel Muehlbacher from Germany, and Marianna de Camargo Cancela from Brazil. The research presentations underlined the profound impact of industry, governments, and the public in how cancer is conceptualized, valued and treated at the global level. The consensus that emerged was of a need to prioritize government investment in cancer care, find opportunities to improve access to medical services for cancer patients, and reduce structural inequalities in access to cancer care.

2. Research findings and policy implications

2.1 Understanding innovation in cancer care and public perceptions in the United Kingdom (presented by David Taylor)

There are strengths and weaknesses to the tax funded NHS system. Political unwillingness to increase taxes may on occasions cause underfunding, or a tendency to impose undue burdens on health-related social care. In Britain the latter is in large part privately funded. As a proportion of GDP the UK spends less on health care than countries like France, Germany and the US. Cancer care of all types accounts for 0.6-0.8% of UK GDP. Problems should not be exaggerated, but there are areas where the UK underperforms relative to other high-

income nations. Factors impeding the improvement of cancer-related outcomes include inadequate investment in capital infrastructure and medical equipment affecting, for instance, radiological care quality. There is ambiguity towards the pharmaceutical sector which merits further research. Although the majority of the public support the current mixed financing system for funding drug development there is a lack of understanding of issues such as the effectiveness of NHS pharmaceutical cost regulation and the need to balance public interests in affordability, access, industrial development and ongoing innovation. New national cancer plans for England and the other UK nations could foster service enhancements in areas such the early detection and treatment of cancers as well as late-stage disease care. One key goal should be to reduce lung cancer death rates absolutely and relative to those recorded in other high-income countries.

2.2 Insurance coverage and financing of new oncology drugs in Israel (presented by Shuli Brammli-Greenberg)

Increasingly, new oncology drugs are not eligible for coverage in Israel's public health insurance system, which is subject to tight budget constraints. As a result, many patients face coverage gaps and financial hardship associated with cancer care. Uncertainty over the clinical benefit, utilization, and cost of new oncology therapies may result in commercial insurers denying coverage to these products to avoid financial risks. Furthermore, commercial insurers often utilize restrictive tools in their policies. To solve this challenge, the Israeli health system requires a redesign of financial and insurance policies for pharmaceuticals to prevent high premiums and out of pocket expenditure.

2.3 Patient-centered value assessment frameworks (presented by Axel Muehlbacher)

At present, value assessment frameworks for health technologies and cancer products lack transparency and clear methodologies for normalization (making indicators comparable before an assessment), weighting (assigning numeric values which are multiplied by the score) and aggregation (calculating a single result from multiple input values). As result, decision-making in the context of healthcare lacks robustness and reproducibility. A standardized framework which incorporates value-based principles or relies on multi-criteria decision analysis would help to optimize decision making and improve the allocation of healthcare resources in a way which maximizes value for patients.

2.4 Productivity loss due to premature mortality in Brazil (presented by Marianna de Camargo Cancela)

Significant regional inequalities in exposure to risk factors, access to preventative services such as screening, pap smears, HPV vaccinations, and social policies contribute to a widening divide in cancer related mortality between the northern and southern regions of Brazil. At its current pace, Brazil will not meet the goals set by the Sustainable Development Goals for reduction in cancer related premature mortality by 2030. The estimated cost of lost productivity reported in US Dollars (PPP) was over \$6.2 billion in 2016, equal to 944,564 years of working life. Different regions in Brazil were differently affected in terms of the number of deaths, years of potential productive life years lost, and costs. Greater local political intervention, social policies and collective support are required to attain these objectives, such as setting vaccination targets for HPV and engaging in healthy behaviors such as reducing smoking.

3. Key themes discussed during the event

The key themes and discussion during the event were based on questions raised by academics, researchers, policy makers and other stakeholders with expert insight into health systems and medicines. The initial research findings from the UK, Israel, Germany and Brazil informed questions on the broader scope of cancer care and COVID-19, fair pricing, prevention, and cost-effectiveness which should all serve as future research priorities.

3.1 Cancer care and COVID-19

During the ongoing COVID-19 pandemic, essential services for cancer such as screening and surgery have been forgone, resulting in significant collateral impacts for cancer patients. COVID-19 has received significant media attention from the pandemic, overshadowing other health needs. The key to tackling COVID-19 includes partnerships between the public and private sectors for pandemic preparedness, supply chains, research and development, and financing healthcare. Similar approaches can be deployed to improve cancer care and other diseases moving forward. While COVID-19 presents significant financial and health threats, it also presents an opportunity to re-shape the economic, social and political consequences of ill-health moving forward. For example, the digitalization of healthcare services through e-health and telemedicine can improve patient care pathways in the care continuum as health systems make use of more digital solutions for diagnosis and treatment. Several healthcare technology companies have emerged during the pandemic and have redesigned the conventional primary care consultation process, allowing more resources to be dedicated towards high-risk comorbid patients without putting other patients at increased level of risk.

3.2 What constitutes fair pricing?

When governments, payers and regulatory bodies evaluate new health technologies, is the objective to improve short-term individual gain for patients, or long-term societal gain? Regulatory and health technology appraisal systems lack effective tools which reflect public perception and need. These relate back to research on value assessment frameworks, methodological weighting and aggregation which combine different elements such as clinical value, cost, and societal benefit into a value which is often contested and difficult to approximate. Drug pricing should be value-based and fair, informed by robust methodological standards, such as use of randomized controlled trials and comparative effectiveness. Ultimately, drug prices send an important signal to researchers and drug developers by rewarding innovators, however if prices are too high the excess money spent on purchasing new drugs can result in significant waste. In order to finance the rising cost of cancer drugs, population-wide discussions are necessary to evaluate drug prices and whether these both represent value and are successful in rewarding innovation. These themes encompass the current drug reimbursement and pharmaceutical landscape in many countries, including the UK, which is trying to assert itself as a leader in scientific research and drug discovery in the next several years following the Brexit referendum.

Greater discussion is needed on what represents fair pricing, an issue that is likely to be context specific to the economic classification of the country. Taking a macro view of what society spends on resources worldwide, a very small amount is spent on biomedical research and development. Society would accrue greater benefits if investors were focused on long-term benefits, and reoriented pricing, social policies and financial incentives to reflect this, while fostering greater collaboration between public and private sector actors. Fair pricing is also dependent on whether the health system is public or private, illustrated by the Israeli example. Many new types of cancer medicines are classified differently in the Israeli public system and incur high costs for public payers, reducing access for patients without effective policy solutions.

3.3 Cancer care is more than treatment, it includes prevention and systemic policies designed to improve health

Improved access to prevention and early detection is a universal goal under the United Nations' Sustainable Development Goals, and a pledge for every UN member state. In Israel, commercial insurers prioritize treatment over prevention and early detection through the use of financing policies which restrict access to preventative tests and basic medical services. In Brazil, inequities are present in the availability of screening services for breast and cervical cancer, and there is an absence of prevention programs for colorectal cancer. In the UK, despite housing leading cancer facilities and one of the largest pharmaceutical markets, insufficient public funds are focused on prioritizing cancer prevention (healthy eating, exercise, reducing exposure to carcinogens such as tobacco and alcohol) and instead are spent on treatment. As such, the UK continues to lag behind its peers on patient outcomes for the most common cancers.

3.4 How should cost-effectiveness be used in drug assessments, and how should it be measured?

As a result of COVID-19, we are currently seeing new discussions on cost-effectiveness and value for money that hasn't been the focus of policy makers for many years. Cost-effectiveness relates to the opportunity cost of what healthcare resources are being displaced, but are we looking at quality of life and long-term gains which may be lost? Current metrics which are used to measure cost-effectiveness need to be operationalized in a better way. Several participants raised the point that it is time to re-open discussions on cost-effectiveness analysis in the United States, while also incorporating other elements such as societal value judgements. This included the fact that the US, one of the only high-income countries not to use health technology assessment, should place greater emphasis on the financial and economic burden of newer therapies. There is no single unified approach to evaluate drugs, but the cost per quality adjusted life year is intuitive, useful and simple to measure. Several countries across the world use this approach to value new drugs, however Germany's health technology agency opted to refrain from using this metric and instead have constructed their own methodology, prioritizing clinical value over economic thresholds. While there is no single correct methodology for valuing new drugs, incorporating clinical and economic values is important for capturing the entire benefit and cost to society. Developing new methodological tools for evaluating the clinical and cost-effectiveness of new drugs will encourage more discussions around value, pricing and access, which will move the discussion forward on how fair financing policies can be improved in the coming decade.

4. Final reflections and key takeaways

4.1 Key takeaways, future research priorities, and conclusions

Overall, discussions on willingness-to-pay thresholds for new drugs differ depending on the country, in part due to the stark differences in per-capita health expenditure which require greater balancing. These discussions have raised questions of how to measure mistrust in pharmaceutical dynamics between manufacturers and payers, and further how COVID-19 will impact the uptake of new therapies. With effective social policies and contributions, we can eliminate most if not all cancer related suffering in the next 50 years. Health systems, governments and regulatory agencies must elevate their thinking and engage in high-level dialogue, working in partnership with the private sector, if they are to improve during and after the pandemic.

First, there are outstanding gaps in our understanding of value-based pricing and what constitutes a fair price. Second, there is a trade-off between short-term financing challenges and long-term goals of extending the healthy life expectancy of the population. Third, greater focus is needed on prevention and early detection in oncology care. Policy reform is needed to improve access to these services and health inequalities. Lastly, COVID-19 has had a profound impact on the economy and on the provision of health services. The short- and



long-term effects on cancer care will be significant, as policy makers contend with financial constraints and re-evaluate approaches to the financing and delivery of care.

Contributions to this research-informed policy forum provided several useful insights, including the value of precise research, the power these findings have educating the public, and the impact this research can have on global oncology and policy in the coming years. Accelerating the uptake of these recommendations into policies which will improve cancer care in the 2020s is a priority of the MSD Global Oncology Policy Grants Program, and in line with the objectives of global health systems. The Program's next cohort will feature new researchers from similarly diverse countries as the first, and will provide further invaluable research insights into areas that are in need of reform to improve cancer care for patients worldwide.

5. Publications from the 2019 Grants Program

Publications as of March 2021:

Shuli Brammli-Greenberg

The insurability of innovative pharmaceutical cancer technologies

<https://ijhpr.biomedcentral.com/articles/10.1186/s13584-020-00426-w>

Marianna de Camargo Cancela

The economic impact of cancer-related premature mortality in Brazil: A human capital approach analysis

https://ascopubs.org/doi/abs/10.1200/JCO.2020.38.15_suppl.7068

Economic impact of cervical cancer premature mortality in Brazil 2001-2030: a human capital approach

https://academic.oup.com/eurpub/article/30/Supplement_5/ckaa166.1120/5915546

Disparities in cancer premature mortality in Brazil: Predictions up to 2030 and sustainable development goals

https://ascopubs.org/doi/abs/10.1200/JCO.2020.38.15_suppl.e13614

OP513 Disparities In Cancer Premature Mortality In Brazil: Predictions Up To 2030 And Sustainable Development Goals

<https://www.cambridge.org/core/journals/international-journal-of-technology-assessment-in-health-care/article/abs/op513-disparities-in-cancer-premature-mortality-in-brazil-predictions-up-to-2030-and-sustainable-development-goals/3CADBF8F02CF32573CEDFD28D4C3BD1B>

OP522 Years Of Potential Productive Life Lost Due To Cancer Premature Mortality In Brazil: 2000 to 2016

<https://www.cambridge.org/core/journals/international-journal-of-technology-assessment-in-health-care/article/abs/op522-years-of-potential-productive-life-lost-due-to-cancer-premature-mortality-in-brazil-2000-to-2016/3BB7118B2FAC2C4499736C45C65C4D35>

Sustainable Development Goal 3.4: Regional disparities in cancer premature mortality in Brazil

https://academic.oup.com/eurpub/article/30/Supplement_5/ckaa165.1178/5913623

David Taylor

British Public Attitudes towards Cancer Research and Treatment in 2019

https://www.ucl.ac.uk/pharmacy/sites/pharmacy/files/embargoed_to_001_hrs_wed_june_26th_british_public_attitudes_towards_cancer_in_2019.pdf

Cancer Policy Update: Agenda for the 2020s

https://www.ucl.ac.uk/pharmacy/sites/pharmacy/files/v_final_cancer_policy_update_embargo_jan_10_2020.pdf

The Political Economics of Cancer Drug Discovery and Pricing

<https://discovery.ucl.ac.uk/id/eprint/10113037/1/1-s2.0-S1359644620303445-main.pdf>