## GONE MISSING...



## The Treatment of Men in Global Cancer Policy

Natalie Leon and Christopher Colvin

A report from Global Action on Men's Health

## GLOBAL ACTION ON MEN'S HEALTH

Global Action on Men's Health (GAMH) was established in 2013, launched during International Men's Health Week in June 2014 and registered as a UK-based charity in May 2019. GAMH brings together organisations and others with an interest in men's health in a new global advocacy network.

GAMH's mission is to create a world where all men and boys have the opportunity to achieve the best possible health and wellbeing wherever they live and whatever their backgrounds. Far too many men and boys suffer from health and wellbeing problems that can be prevented. Globally, male life expectancy at birth is just 71 years but poor male health is not sufficiently recognised or effectively tackled by global health organisations or most national governments.

GAMH wants to see:

- Global health organisations and national governments address the health and wellbeing needs of men and boys in all relevant policies.
- Men and boys encouraged and supported to take better care of their own health as well as the health of their partners and children.
- Health practitioners take greater account of the specific needs of men and boys in service delivery, health promotion and clinical practice.
- Other agencies and organisations, such as schools and workplaces, helped to be more aware of their significant impact on the health of men and boys.
- Sustained multi-disciplinary research into the health of men and boys.
- An approach to health that fully recognises the needs of both sexes in policy, practice and funding and which promotes greater gender equality.

GAMH uniquely represents a wide range of organisations and individuals with experience of policy development, advocacy, research and service delivery. GAMH's focus is primarily on public health and the social determinants of health, it is concerned about a broad and cross-cutting range of men's health issues and has a strengths-based view of men and boys.

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## ABBREVIATIONS

AACR American Association for Cancer Research
DALY Disability-adjusted life year
ECO European Cancer Organisation
EU European Union
GAMH Global Action on Men's Health
HPV Human papillomavirus
NCCN National Comprehensive Cancer Network
NCD Non-communicable disease
$\mathrm{NCl} \quad$ National Cancer Institute
NGO Non-governmental organisation
SDG Sustainable Development Goal
UICC Union for International Cancer Control
UNFP United Nations Population Fund
USA United States of America
WCRF World Cancer Research Fund International
WHO World Health Organisation

"This report has a very specific focus: how men are addressed or not addressed - in cancer policy at the global level."

## Foreword

Men's excess burden of cancer - in terms of both incidence and mortality - has been evident for many years. But it is a problem that has also been for too long overlooked, not least in policy.

Gone Missing finds that men are largely absent from the cancer policy produced by many of the leading organisations in global health. While policies may refer to some headline data concerning sex differences, this rarely leads to any analysis of the policy changes required to make a difference to men's outcomes.

But there are some signs of hope, including a growing recognition of the importance of extending HPV vaccination programmes to boys and of the case for prostate cancer screening. Looking beyond cancer specifically, there are also a wide range of reports and recommendations emerging about how men's health can be improved more broadly. The World Health Organisation, for example, both globally and regionally, is beginning to show a real interest in men, until now the 'missing gender', in its work.

Global Action on Men's Health will take advantage of these new opportunities and use the evidence in this report to make the case for men to be taken fully into account in future cancer policy. GAMH will make the case for male-targeted prevention, early diagnosis, treatment and care to the key international organisations engaged in cancer policy. We will not allow men's unnecessarily poor cancer outcomes to continue to be a problem hiding in plain sight.

Finally, we are very grateful to Natalie Leon and Chris Colvin, both GAMH members, for all their work on this report. Their painstaking analysis of a wide range of reports and documents has provided the robust research needed to help us make the case for a new and more inclusive approach to cancer policy.

## Peter Baker, Director

Global Action on Men's Health

## Executive Summary

The persistent global gender gap in cancer incidence and cancer outcomes among men is a critical issue that has not received sufficient attention in global cancer policy.

Recent data indicates that global cancer incidence rates are 19\% higher-and global cancer mortality rates are $43 \%$ higher-among men as compared to women. These gendered cancer inequities are in turn intensified for those men who also face the intersectional challenges of poverty, racism and other forms of oppression.

Despite these alarming figures, however, the problem of cancer in men remains underfunded and underrepresented in global cancer research, advocacy, and policy initiatives. The result is a significant disparity in access to prevention, early detection, and effective treatment options, leading to a higher burden of cancer morbidity and mortality among men.

To understand more precisely how questions of men and cancer are dealt with in global cancer policy, this report reviews 28 key global and regional cancer-related policy documents and assesses the ways in which men currently feature in these documents.

The report examines several ways in which the needs, preferences, and experiences of men may-or may not-be addressed in global cancer policy discourse. For example, the simple inclusion of sex-disaggregated data when reporting key cancer and cancer control outcomes is a vital first step in laying the foundation for a gender-informed approach to cancer.

Unfortunately, most of the documents reviewed for this report offered no sex-disaggregated data at all, and many of those that did, offered disaggregated information on just a few outcomes and with little further interpretation.

The report also examines the ways in which concepts of gender-as a broad umbrella term, as a way of implicitly referencing women, and/or as a way to address men-appears in these policy documents. As with sexdisaggregated data, references to gender in any of these senses are fairly few across these policies. Even more scarce are in-depth treatments of specific gendered dynamics in relation to men and cancer outcomes and interventions.

The two areas where the policy documents examined in this report do engage with these questions more substantively are in relation to HPVlinked cancers and prostate cancer and there are a couple of reports highlighted here that do an admirable job of engaging with the place of men and gender in these cancers.

Understanding the gaps in global cancer policy leads to the next question: what can be done to address these blindspots? What can activists, communities, researchers, gender organizations, and governments interested in focusing attention on this persistent gender gap do to improve global cancer health policy?

Using John Kingdon's three-part model of the ways in which 'policy windows' emerge, the report concludes by offering some concrete ideas on how advocates, researchers and policymakers might work together to better understand and address the cancer-related needs, experiences and preferences of men. Recommendations are divided into three 'streams':

- One assessing how to produce new knowledge and more effectively translate existing knowledge about the problem to inform policymaking;
- One examining ways of developing consensus around the most effective policy strategies for tackling this problem; and
- One considering the broader political environment and how to make strategic use of key allies and emerging opportunities for policy change.

This approach can help GAMH and others to develop effective advocacy strategies that will push men onto the global cancer policy agenda and lead to the elimination of their excess burden of cancer incidence and mortality.


* The disabilityadjusted life year (DALY) is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.


## Background

There is increasing national and international recognition of the inequitable gender-related health gaps in men's burden of most communicable and non-communicable diseases, men's limited access to and utilization of health care, and men's increased morbidity and mortality compared with women.' Globally, there is a significant difference in life expectancy between men and women, with men dying on average five years earlier than women. ${ }^{2}$ Men also face a higher exposure to the top 10 global risk factors for morbidity and mortality and suffer higher DALY* burdens as a result of those exposures. ${ }^{3}$

In the past, inequities in male health have mostly been overlooked by global and national health organisations, gender-specific surveillance has not been prioritised, and 'gendered strategies' in health have been equated with addressing women's health. ${ }^{4}$ Addressing gender inequities related to health and health care for women has indeed been a priority for decades, supported by international gender equity targets, like the Sustainable Development Goals (SDGs). And, in part due to this policy prioritization, some progress has been made in tackling the many forms of health inequities that women around the world face, including genderbased violence, sexual and reproductive health, mental health challenges and non-communicable diseases like cancer and heart disease, among others.

This gender-equity focus is now beginning to be extended to men in an effort to reduce the disproportionate impact on men of health issues identified in the SDG3, including, among many others, premature mortality from non-communicable diseases, substance abuse and road traffic accidents. ${ }^{5}$ There has been an increase in international recognition of men's health needs and new opportunities for policy development have emerged, partly as a result as of a better understanding of the role of gender in health. Emerging evidence of the burden of disease on men's health and its costs, especially during the COVID-19 pandemic, has contributed to this increased awareness of male health. ${ }^{6}$

The inclusion of global experts on and advocates for men's health on the recent 'Lancet Commission on Gender and Global Health' is evidence of this increasing global interest in men's health in recent years. There are now multiple academic centres, international NGOs and advocacy groups bringing focus to men's health. Several countries have even developed national policies that focus on improving male health, including Australia, Brazil, Iran, Ireland ${ }^{2}$ and, more recently, South Africa and Malaysia. WHO's European Region has also published a men's health strategy covering its 53 member states. These male health-focused policies are a major step forward, and this momentum should now be extended to key specific areas where men face a particular burden of disease, such as cancer.

Global and national level consideration of men's needs, experiences and preferences regarding cancer prevention, treatment and care can have important impacts in terms of prioritizing focus, actions and resources as well as monitoring impact. Specific policy initiatives in cancer are needed
to get a better understanding of the gendered disease patterns for men and to identify evidence-informed strategies to address male health needs. But achieving this will require sustained and effective advocacy for policy attention to the issue of men and cancer. As part of the effort to support and promote this policy advocacy, this report surveys global cancer policy documents from a wide range of global health actors and examines the ways in which men are currently addressed in these documents, if at all. This in-depth look at the ways in which men's needs, experiences and preferences are considered in these documents points to both gaps in the global policy context, as well as opportunities and encouraging developments on which to build.

The report concludes with reflections on the kinds of strategies that policy advocates might pursue in increasing attention to and engagement around the issue of men and cancer.

## Unmet need among men for cancer prevention, treatment and care

Estimates of the global burden of cancer incidence and mortality paint a stark but clear picture of men's share of the global cancer burden. Sung et al, in their recent analysis of the GLOBOCAN estimates of 2020 cancer incidence and mortality, found that:
"Worldwide, the incidence rate for all cancers combined was 19\% higher in men (222.0 per 100,000) than in women (186 per 100,000) in 2020...The gender gap for overall cancer mortality worldwide is twice that for incidence, with death rates $43 \%$ higher in men than in women (120.8 and 84.2 per 100,000, respectively)".7.

This global gender gap in cancer outcomes has been stable for decades and has also been found in numerous regional and country-level studies. ${ }^{8,9,10,11}$ A 2010 report from the UK, for example, found that men were $44 \%$ more likely to be diagnosed with non-sex-linked cancers than women, and 69\% more likely to die from these. ${ }^{9}$ A comprehensive 2013 report on men and five common cancers in Ireland found that Irish men were between 1.6 and three times more likely to be diagnosed with colorectal, lung, bladder and stomach cancer (with melanoma being more common in women) and between 1.6 and 2.7 times more likely to die from all five of these cancers." ${ }^{17}$ recent large prospective cohort study in the US found that cancer incidence was higher among men for all non-sex-linked cancers with the exception of thyroid and gallbladder cancer. ${ }^{8}$

These overall global and national level estimates of the cancer gender gap of course hide important variations within and between different geographic contexts, class positions, racial and ethnic identities and other intersecting social determinants.

Global cancer burdens, especially of incidence, are borne disproportionately by higher-income countries (reflecting their older populations, the lower burden of infectious disease and higher exposure to certain risk factors relative to other countries), but low- and middle-

## "Differences in social class within a country can also have profound effects on the distribution of cancer outcomes."

income countries are rapidly catching up and are expected to increase their cancer burden at a much faster rate over the next 20 years. ${ }^{7}$

In the case of prostate cancer, Western and Northern Europe, the US and Canada have actually had significant success in bringing down prostate cancer mortality rates over the last few decades while many countries in Asia and Africa have faced increasing mortality, likely caused by both increasing incidence as well as continued constraints to accessing testing and treatment. ${ }^{7}$ Within regions like the EU, Ireland has a 56\% higher incidence than the EU average and Romania has a $36 \%$ lower risk. ${ }^{10}$ And within country contexts, there are also stark differences, for example, in outcomes among White and Black men in the USA, with prostate mortality rates 73\% higher for Black men, despite significant reductions in the overall racial cancer gap in the last 20 years. ${ }^{12}$

Similarly, differences in social class within a country can also have profound effects on the distribution of cancer outcomes. While wealthier men are more likely to develop prostate cancer, poorer men are more likely to die from it due to lower rates of screening, advanced stage of disease at diagnosis and barriers to accessing timely and effective treatment. ${ }^{13}$ Important social class differences exist not only with respect to direct measures of poverty but also with respect to neighbourhood location, immigration status and access to social support. ${ }^{13}$

These complex patterns of variation in cancer burden, both among various sub-groups of men for all cancers, and between men and women for non-sex-linked cancers, are in turn the result of a complex mix of factors. These include underlying biological mechanisms, patterned differences in exposure to risk factors, inequalities in access to prevention, treatment and care, and varying distributions of competing risks among different groups and contexts. Men's differential exposure to risk factors for cancer has been identified in many studies, however, as one of the primary drivers of these differences in outcomes. As noted above, men face greater exposure to the top 10 risk factors for all causes of morbidity and mortality. ${ }^{3}$ For cancer, these risk factors are typically understood to be:
"...higher rates of tobacco use, higher levels of excess alcohol consumption, unhealthy diets, a high prevalence of overweight/obesity, low levels of physical activity or inactivity and, to some extent, later presentation [to health services]" (pg. 10)." ${ }^{11}$

A recent study of a large dataset of US men and women also found good evidence that many of the commonly cited risk factors-alcohol and tobacco use, diet, physical inactivity, etc.)—explain some of the disparities in cancer outcomes between men and women. Their study noted, however, that only between $11 \%$ and $50 \%$ of these differences could be explained by these factors, leaving considerable uncertainty about what other gender and/or sex-related mechanisms might be behind the gap. ${ }^{8}$

Another important limitation in the current understanding of these complex dynamics of the cancer gender gap is the fact that many of the studies we have come from high-income country settings, embed heteronormative framings of sex and gender in their datasets, and/or skew towards more privileged populations with better access to health
care. ${ }^{14}$ Clearly, further research into the underlying patterns, evolutions and mechanisms of the cancer gender gap is needed. Whatever the weaknesses in the data, however, the research is consistent in pointing to significant levels of unmet need for men when it comes to cancer prevention, treatment and care.


## Objectives and overall methodological approach

The objectives of this report are to:

- Assess the ways in which men are currently considered in global and regional cancer policy, and;
- Develop recommendations for policy advocacy strategies that global, national and local advocates might make use of when promoting better inclusion of men's needs in cancer health policy.

The methodological approach drew on rapid review methods to identify, map and synthesise relevant information. This approach involved developing a protocol guide and a stepwise process of searching and screening records for relevance, reviewing eligible full-text records and extracting data relevant to the questions of interest, and then synthesising the data. Rapid review techniques balance the need for timely results with a commitment to maintaining the robustness, meaningfulness, transparency, and trustworthiness of the findings. ${ }^{15}$

Data sources for describing the burden of disease and identifying evidence-based strategies and policy development strategies included academic literature and technical reports from governments and NGOs. Data sources for the policy review objective were policy-relevant documents from global and regional organizations, including formal policies, guideline documents, strategic plans and resolutions, progress reports, best practice documents and clinical guidelines.

## Searching

For the policy review, categories of cancer policy-relevant organisations of interest for this review were identified and the websites of these organisations searched for policy relevant documentation.

Policy can mean many different things, so a variety of documents were looked for including policy documents and resolutions, policy and clinical guidelines, strategic plans, progress reports, and best practice recommendations. The focus was on global and regional level policy agencies, both government and non-governmental agencies, as well as on key policy making stakeholders in cancer and related health, research and advocacy agencies. These included international health agencies such as the World Health Organisation (WHO), regional state agencies such as the European Union, and selected national government health departments (for example, from Europe, Africa and New Zealand). The cancer and related health care agencies included those with a focus on lung cancer, HPV-related cancers, and non-communicable disease.

An iterative search process was used to identify further sources of information, starting with organizations listed in the protocol and identifying more organizations by following leads found in the reports, as well as doing open searches. Suggestions were also gathered from the GAMH Executive.

## Selection of records for inclusion

A list of 60 policy relevant organisations and/or policy relevant documents was developed and a sample of 28 documents selected for review and data extraction. Sampling was aimed at selecting a manageable number of reports to review, with balance across several criteria, including levels (international, regional, national), different types of organizations (NGOs, advocacy, research organizations), degree of specificity of proposals (cancer broadly vs specific cancer areas), and scope (cancer-specific vs other NCD and risk factor policies).

## Data extraction and synthesis

A set of data extraction domains was developed, based initially on the questions of interest stated in the protocol, and then adapted based on the emerging data from the reports. If and how men were considered in the cancer and related policy documents was a key issue of interest. It was anticipated that there may be little direct information on men and cancer in these documents, however, and indirect measurements of whether and how sex and/or gender were therefore considered in these reports.

A set of terms to search for relevant information was developed for the following areas: the presence of sex-disaggregated data, reference to gender determinants and gender equality/equity, the context of reference to men and women, reference to male and female specific cancers (e.g., cervical and prostate) and reference to the top three cancers associated with mortality (lung, liver, colorectal). For each report, a quick overview of the purpose and scope of the report was completed. The set of search terms was then used via the Find function in the PDF formats of the papers to identify the relevant areas of the report for review.

A Word document was created to extract data on whether key terms appeared in the document, how many times, and information that related to any of the key measures of interest was extracted and pasted.

To map and synthesise the information, an Excel spreadsheet was created to map the key measures, from general to specific. These measures were then combined into categories that synthesised the information for the report.


## How men and gender are considered in global and regional cancer policy

## Overview of included policy documents

The review identified 60 potentially relevant documents and included 28 of those for analysis. The included documents covered international, multi-lateral organisations with a global reach, like WHO and UNFP, as well as regional organizations such as the European Commission, and selected national level policies, such as the US National Cancer Institute ( NCI ), the ministries of health of the United Kingdom, Malawi and New Zealand. Policy relevant documents from international and regional non-governmental cancer organizations were included such as Union of International Cancer Control (UICC), World Cancer Research Fund International (WCRF), National Comprehensive Cancer Network (NCCN) and European Cancer Organisation (ECO), and one global philanthropic health organisation, the Clinton Health Initiative. The report also included national cancer associations with global reach, such as the American Cancer Society and the American Association for Cancer Research (AACR). The included reports covered policy relevant documents focusing on cancer in general, as well as for specific cancers of interest (lung cancer and HPV-related cancers). The report also covered policies related to control of non-communicable disease and control of the key risk factors of tobacco and alcohol control. See Table 1 below for a full listing of the cancer-related policy documents sampled, and where they contributed information (marked with $X$ ).

## Global and regional cancer-related policy relevant documents selected for analysis

General cancer policy - International and multinational organizations

|  |  |  | Sex disaggregated data | Gender equity strategies | Women \& cancer | Men \& cancer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | WHO | WHO report on cancer: setting priorities, investing wisely, and providing care for all (WHO 2020) | X | X | X | X |
| 2 | WHO | Guide to cancer early diagnosis. (WHO 2017) | X | X | X | X |
| 3 | WHO | Toward the World Code Against Cancer (WHO Euro 2019) | X |  | X | X |

## General cancer policy - other organisations

Union of
International
Cancer Con- trol (UICC)

UICC Impact Report: Close the care gap (UICC 2022)

| Sex | Gender | Women |  |
| :---: | :---: | :---: | :---: |
| disag- | equity <br> gregated <br> strate- <br> data | gieancer |  |
| cancer |  |  |  |

5 UICC UICC advocacy agenda 2023-2025: Setting out the path to 2030 (Draft) (UICC 2022)

6 European
Commission
Europe's Beating Cancer Plan
(European Commission 2020)
7 European
EU 2022 COUNCIL RECOMMENDA-
Commission
TION on strengthening prevention through early detection: A new EU approach on cancer screening (European Commission 2022)

8 World Cancer
Research
Fund
International
(WCRF)
Driving action to prevent cancer and other NCDs: a new policy framework for promoting healthy diets, physical activity, breastfeeding and reducing alcohol consumption (WCRF 2018).

9 American
Association for Cancer
Research
(AACR)
US Cancer Disparities Progress Report: Achieving the Bold Vision of Health Equity for Racial and Ethnic Minorities and Other Underserved Populations (AACR 2022)

10 Government of United UK Govt 2011 Improving outcomes: A Strategy for Cancer, (UK government, DOH, England 2017)

11 US National
Cancer Institute (NCI)

New Zealand
Ministry of Health (MOH)

Malawian National Cancer Strategic Plan 2019X X

## HPV-related policy

| Sex | Gender | Women |  |
| :---: | :---: | :---: | :---: |
| disag- | equity | \& cancer | cancer |
| gregated | strate- |  |  |
| data | gies |  |  |

14 WHO Updated Vaccination
recommendations re HPV (WHO 2022)

15 World Health 75th WHA Declaration. Annex 5,
Assembly Progress on elimination of cervical cancer (WHA 2022 April)

16 European
Viral Protection. A Four Step Plan for
X
X
X
X

X
X

Cancer
Organisation
(ECO)
17 American Recommendations for Human Papillo-
Cancer mavirus (HPV) Vaccine Use (ACA 2021)
Society
18 American
Human Papillomavirus Vaccination
X
X
X

Cancer 2020 Guideline. Update: American
Society Cancer Society Guideline Adaptation (ACA 2020).

## Lung cancer policy

19 International
Association for Research on Cancer
(IARC) \&
WHO)
20 Comprehen- The NCCN Harmonized Guidelines ${ }^{\top}{ }^{\top M}$ sive Cancer for Sub-Saharan Africa. Network
(NCCN)
1.2. NCCN Guidelines for patients: nonsmall cell lung cancer. Early and locally advanced (NCCN undated)

21 Comprehen- The NCCN Harmonized Guidelines ${ }^{\top T M}$
sive Cancer for Sub-Saharan Africa: Lung cancer
Network
(NCCN)) screening. Guide to patients (NCCN undated)

X
Global Building-the-business-case (IARC and WHO 2021)

Tackling NCDS. 'Best buys and other recommendations for the prevention and control of noncommunicable diseases. (WHO 2017)

23
Non-Communicable Disease (NCD) Alliance

United Nations Population Fund (UNFPA)

25 WHO Euro

26 WHO

## O

 , to effectively implement the Global Strategy to reduce the harmful use of alcohol as a public health priority (WHO 2021)WHO 2021 Global Progress Report on Implementation of the WHO Framework Convention on Tobacco Control (WHO 2021)

WHO Draft Action plan (2022-2030)
X 2nd WHO consultation on updated Appendix 3 of Global Action Plan for prevention and control of NCDs 20132030 (26 Aug 22)

> Responding to the Challenge of Non-communicable Diseases (United Nations Inter-Agency Task Force on the Prevention and Control of Noncommunicable Diseases, UNFPA 2019)

Addressing the noncommunicable disease (NCD) burden in prisons in the WHO European Region (WHO European Region 2022) X

X

X
X

## Other

The sections below describe in more detail how gender and men's health are reflected in these policy-related documents. The findings are categorized into five sections that move from more general references to gender in the abstract to more specific engagement with the needs, experiences and preferences of men.

The first section examines if and how gender and men are reflected through the presence of sex-disaggregated data in policy documents. The second section addresses how documents engage with 'gender' and gender disparities in cancer. The third section examines if and how men's health is explicitly considered in relation to cancer. The last two sections focus in on prostate cancer and HPV vaccination, two areas where men's health have been considered in more detail in some of these documents.

## "Only three documents (of 28) provided detailed sexdisaggregated data."

## Engaging with men's health needs through sex-disaggregated data

One quick way to see if and how men have been considered in policymaking is to see whether policy documents provide sexdisaggregated data, and if so, to examine the form and extent of this information.

Sex-disaggregated data give a breakdown by sex of a range of different disease prevalence and outcome measures. For example, a document might report on the proportions of females and males with a specific type of cancer or with risk factors such as smoking or alcohol use. Alternatively, a report might show a distribution by sex of the highest mortality cancers, or the proportional cancer survivorship rates for males and females.

Sex-disaggregated data is a crucial first step for understanding and addressing gender disparities that may exist in cancer risk and prevention, service access, and treatment outcomes. When sexdisaggregated data is presented alongside data that is disaggregated by other social determinant variables such as age, ethnicity, minority, and disability status, it can provide even further informational support for detailed analysis of underlying determinants of disparities in cancer prevention and care.

Twelve (43\%) of the 28 documents included no sex-disaggregated data. In 13 (46\%) of the 28 documents, there was only cursory reference to sexdisaggregated data. Only three documents (17\%) provided detailed sexdisaggregated data: the WHO's Toward the World Code Against Cancer report provided data for a range of cancers for different global regions ${ }^{16}$, the European Cancer Organisations' HPV elimination report provided HPV-related data ${ }^{17}$, and the AACR cancer disparities report provided data on various cancers in the US. ${ }^{12}$

Most documents provided a limited amount of sex-disaggregated data (one or two sets of figures or tables) and/or covered a limited scope of issues (e.g. one or two cancers or risk factors). Others provided sexspecific data for only one gender, like smoking rates for males or females, without providing comparative figures. Where full sex-disaggregated data was provided, it was not generally for the purpose of identification or discussion of sex or gender related disparities. Below are examples of the types of sex-disaggregated data that appeared in the documents.

## Sex distribution of cancer prevalences and risk factors

A few documents provided data on the sex distribution of the prevalence of various cancers. Typically, this involved simply reporting the prevalence of cancers without discussion of these differences, the underlying reasons behind them, or what to do about them. Without making explicit mention of sex or gender as a determinant of cancer disparities, WHO's Toward the World Code Against Cancer report nevertheless provided detailed sex-disaggregated data on prevalence and sex disparities of common cancers and risk factors (smoking and body mass index) for different regions globally. ${ }^{16}$ For example, the report provides sexdisaggregated cancer mortality data for non-EU Eastern European
countries and former Soviet republics:
"Stomach cancer mortality is high for men and women. Central and Eastern Europe have the highest lung cancer mortality rates in men worldwide" (pg. 4). ${ }^{16}$

It also reported on-but did not discuss-smoking as a gendered risk factor in India:
"The age-standardized smoking prevalence in 2015 was 38\% for males and $2.2 \%$ for females" (pg. 4). ${ }^{16}$

The European Cancer Organisation's (ECO) report titled Viral Protection. A Four Step Plan for Eliminating HPV Cancers in Europe provides cancer prevalence data for sex-specific HPV-related cancers, but also for non-sexspecific cancers where males are referenced (oral and anal cancer):
"High-risk oral HPV infection specifically has been found to be much more prevalent in men than women" (pg. 8). ${ }^{17}$

The Malawi government's National Cancer Strategic Plan for 2019-2029 provides sex-disaggregated data for a range of cancers and some risk factors (18). ${ }^{18}$ For instance, they report that, in 2012, there were were 5,966 new cancer cases in men and 9,383 new cases in women. They provide the figures for the major cancers among women (uterine, cervix, Kaposi's sarcoma, esophagus, and breast) and for men (Kaposi's sarcoma KS, esophagus, non-Hodgkin lymphoma, prostate, and urinary bladder) and survival rates.

The WHO report addressing noncommunicable diseases (NCD) in prison populations in Europe compared the burden of disease between prison and non-prison populations, noting the increased burden of cancer and other NCDs among prison populations. They noted that most prison populations are male, with an over-representation of black and ethnic minorities. Prisoners had higher rates of cancer compared to the general population, and presented at a later stage of disease:
...compared with individuals without criminal justice involvement, it was found that those with criminal justice involvement had a $2 \%$ higher age-adjusted prevalence of lung cancer; a $5 \%$ higher prevalence of cervical cancer; and a $2 \%$ higher prevalence of alcohol-related cancer" (pg. 12). ${ }^{19}$

The study reported on differences in male and female rates among prison populations for multiple NCDs, noting that females may have higher rates. It also provided sex-disaggregated data for various NCD risk factors such as obesity, exercise, and nutrition. In this report, there is specific engagement with gender differences, with the focus on the health promotion needs of women as a minority group in prisons.

A number of reports provided sex-disaggregated data for risk factors, mainly for smoking rates ${ }^{16,18,20,21,22}$ but also alcohol use ${ }^{18,23}$ and body mass index (BMI) ${ }^{16}$. Some point to increased risks among males, but mostly with no further discussion of these disparities. The most sex-disaggregated smoking data is provided by the WHO Framework Convention on Tobacco Control report that shows youth smoking and smokeless tobacco use prevalence globally for girls and boys. In their report, in, Annex 1: Progress
in the implementation of the WHO FCTC in 2018-2020, some of the indicators, such as education and awareness raising, are broken down by sex. Of interest is that one of the strategies in the report, Article 14. Demand reduction measures concerning tobacco dependence and cessation, focuses on three indicators for gender-specific programmes for smoking cessation among females, for 1) young women, 2) women generally and 3) pregnant women. They describe no equivalent explicitly male programming, but do report indicators for smoking cessation programmes in settings where it can be assumed males may be reached more easily (e.g., sporting and work settings). ${ }^{23}$ Similarly, the European NCD in prisons report reported on smoking cessation programmes geared towards females, without reference to equivalent programmes for males. ${ }^{19}$ The Malawi strategic plan provides targets for reducing smoking rates for men and women: "Reduce tobacco use by 20\% from baseline use ( $18 \%$ in men aged above 15 years; boys (10-14 years) 16\%, girls (11.2\%) in 2016" (pg. 19). ${ }^{18}$

## Cancer-related mortality rates for each sex

A few documents provided statistics on the sex distribution of cancerrelated mortality across different cancers. The 2020 WHO report on cancer: setting priorities, investing wisely, and providing care for all (referred to here as the WHO Report on cancer) provides sexdisaggregated data on the most common cancers, and for cancers associated with the highest mortality levels. They present this in two figures. ${ }^{22}$ One is 'Fig. 1.1. Estimated global burden of cancer in 2018' (pg. 25) and the other is 'Fig. 1.4. Age-standardized rates of prostate cancer and of cervical cancer in countries according to human development index in 2018' (pg. 27). See the figures below.

Estimated global burden of cancer in 2018 - MALE

|  | Incident cases |  |
| ---: | :---: | :---: |
| Lung | 1368524 | $\mathbf{1 4 . 5 \%}$ |
| Prostate | 1276106 | $\mathbf{1 3 . 5 \%}$ |
| Colorectum | 1026215 | $\mathbf{1 0 . 9 \%}$ |
| Stomach | 683754 | $\mathbf{7 . 2 \%}$ |
| Liver | 596574 | $\mathbf{6 . 3} \%$ |
| Bladder | 424082 | $\mathbf{4 . 5 \%}$ |
| Oesophagus | 399699 | $\mathbf{4 . 2 \%}$ |
| Non-Hodgkin lymphoma | 284713 | $\mathbf{3 . 7} \%$ |
| Kidney | 254507 | $\mathbf{2 . 6 \%}$ |
| Other cancers | 249454 | $\mathbf{3 0 . 6 \%}$ |
| Total Cases | 2892790 | $\mathbf{1 0 0 \%}$ |

## Estimated global burden of cancer in 2018 - FEMALE

|  | Incident cases | $\mathbf{2 4 . 2 \%}$ |
| ---: | :---: | :---: |
| Breast | 2088849 | $\mathbf{9 . 5 \%}$ |
| Colorectum | 823303 | $\mathbf{8 . 4 \%}$ |
| Cervix uteri | 725352 | $\mathbf{6 . 6 \%}$ |
| Thyroid | 569847 | $\mathbf{5 . 1 \%}$ |
| Corpus uteri | 436344 | $\mathbf{4 . 4} \%$ |
| Stomach | 382069 | $\mathbf{4 . 1 \%}$ |
| Ovary | 349947 | $\mathbf{3 . 4} \%$ |
| Liver | 295414 | $\mathbf{2 . 8 \%}$ |
| Other cancers | 244506 | $\mathbf{2 . 6 \%}$ |
| Total Cases | 224877 | $\mathbf{2 8 . 8 \%}$ |

Age-standardised rates of prostate cancer and of cervical cancer in countries according to human development index in 2018



The AACR's Cancer Disparities Progress Report 2022 provides extensive statistical breakdown on male and female distribution of several common and less common cancers in the US. ${ }^{12}$

However, their focus is primarily on disparities across ethnic and minority communities, the elderly, adolescents, and young adults, the disabled, those with low socio-economic status and limited health insurance, residents from US geographic territories, members of sexual and gender minorities (LGBTQ+), and certain immigrants, refugee, and asylum seekers and less on disparities between sexes within or across these groups. In fact, the general definition of 'disparities' used in this report excludes sex or gender disparity as a key focus. Instead, the focus is on disparities associated with other social determinants among the "medically underserved":
"Cancer patients from racial and ethnic minorities and other medically underserved populations experience numerous barriers to quality cancer care. Many of these barriers can be attributed to systemic inequities and societal injustice" (pg. 101).12

In this report, many of the references to men are in the context of comparisons between racial groups. For example, they report a reduction in racial disparities in mortality from lung cancer between black and white men: "Disparity in lung cancer mortality between Black men and White men was reduced from more than 40 percent in 1990-1992 to 15 percent in 2015-2019" (pg. 19).'2 And further: "Despite the narrowing disparities, lung cancer incidence rates in Black men were 12 percent higher than those in White men during 2014-2018" (pg. 19).'2

The Disparities report does provide data that highlights male and female differences within racial groups, but as mentioned, this is often used to illustrate racial disparities with other groups, and not gender disparities: For instance, for lung cancer, they provide a comparison between Black men and women:
"Lung cancer is also the leading cause of cancer-related mortality in Black men and the second- leading cause of cancer deaths in Black women" (pg. 19). ${ }^{12}$
"During 2015-2019, the most recent period for which such data are available, the lung cancer death rate declined by about six percent every year in Black men compared to five percent in White men, and four percent in Black and White women" (pg. 19).12

And for myeloma, they provide a gender comparison between Black men and women.
"Death rates for myeloma declined by three percent every year for Black women and one percent for Black men and White men during 2015-2019, thanks to rapid advancements in effective therapeutics" (pg. 22). ${ }^{12}$

Such sex comparisons within or across groups were rare in this report, and the report does not discuss reasons for sex or gender disparities or how to address them. For instance, they note that the reductions in lung cancer trends reflect a steep decline in smoking rates over the past five

## "It is interesting that while sexdisaggregated data is presented in some detail in this report, it is not used for analysis of sex or gender disparities."

decades, thanks to effective public health policies, but do not provide details on the gender distribution of reduced smoking rate patterns. ${ }^{12}$

It is interesting that while sex-disaggregated data is presented in some detail in this report, it is not used for analysis of sex or gender disparities. Although they do not explain this, the reason may be that gender disparity is not included in their definition of disparities.

## Sex-specific cancers

The most common form of sex-disaggregated data across these documents was statistics on the burden of sex-specific cancers. Reference to statistics on cervical cancer and breast cancers in women was by far the most common; for men, it was prostate cancer.

Most references to prostate cancer describe the burden of disease. For instance, the 2020 WHO Report on Cancer lists prostate cancer as the second highest on the global list of cancer burden for men. ${ }^{22}$ The WHO's Toward the World Code Against Cancer report provides data on the geographic distribution of burden of disease for prostate cancer in different WHO regions. ${ }^{16}$

The AARC's Disparities Report provides extensive data on disparities in prostate cancer across ethnic and minority populations in the US. ${ }^{12}$ The report notes that prostate cancer is the most common cancer among black men, accounting for a projected one third (37\%) of new cases diagnosed in black men in 2022. Further, it notes that the racial disparities for black men are large and persistent, and include having the highest death rate from prostate cancer compared to any other racial group between 2015 and 2019:
"The rate of prostate cancer incidence during 2014-2018 was 73 percent higher in Black men compared to White men, a disparity that has persisted for decades" (pg. 19). ${ }^{12}$

The US Disparities Progress Report makes special mention of male breast cancer, noting that although it is rare in the US, 2,710 cases will nonetheless be diagnosed each year, and 550 men will die from it in 2020. They detail the racial differences in male breast cancer between Black and White men, with Black men having a up to $52 \%$ higher risk, including a two-fold higher risk of the of the aggressive triple-negative breast cancer sub-type compared to White men. ${ }^{2}$

In general, except for the Disparities report, data presented on prostate cancer is limited to illustrating prevalence, including geographic distribution, with no further analysis of subgroups or risk factors.

## HPV and HPV vaccination

For the most part, data in these reports on HPV and HPV vaccination is mostly centred on women and does not discuss sex or gender disparities. One exception is the 2020 European Cancer Organisation's (ECO) report on HPV elimination. ${ }^{17}$ This report provides information on HPV and related cancers that include references to men and women:
"HPV (human papillomavirus) is a very common sexually transmitted infection that causes almost $5 \%$ of all cancers in women and men worldwide" (pg. 6). ${ }^{17}$
"Almost all (85-90\%) sexually active women and men will acquire HPV at some point in their lives" (pg. 8). ${ }^{17}$

Men are also included when the report mentions a male-specific HPVrelated cancer (penile cancer). The HPV-related cancers listed are cervical, anal, penile, vaginal, vulval and oropharyngeal cancers:
"HPV is implicated in virtually all cases of cervical cancer and around $90 \%$ of anal cancers. Estimates vary concerning the role of HPV in other cancers but one global analysis suggested that it causes $12 \%-63 \%$ of oropharyngeal cancers, $36 \%-40 \%$ of penile cancers, $40 \%-64 \%$ of vaginal cancers, and $40 \%-51 \%$ of vulvar cancers" (pg. 8). ${ }^{17}$

The report details not only sex comparisons, but also addressed the specific health needs of men generally, as well as for high-risk men, such as men who have sex with men:
"In some European countries, the prevalence of high-risk HPV infection exceeds $15 \%$ in women. One study of oncogenic HPV types in men found a prevalence rate of $12 \%$. In men who have sex with men specifically, the prevalence rate of HPV types 16 or 18 could be as high as $20 \%$. High-risk oral HPV infection specifically has been found to be much more prevalent in men than women" (pg. 8). ${ }^{17}$

And further:
"In recent years, there has been a marked increase in the incidence of oropharyngeal cancers, mainly caused by HPV type 16, particularly in men" (pg. 8). ${ }^{17}$

Other reports also offer data on HPV vaccination rates, but these figures are usually focused on girls and women. ${ }^{16,24,25,26,27}$ The 2020 American Cancer Society (ACS) report on HPV provides a figure of $68.1 \%$ in 2018 in US, but this includes females and males. Europe's Beating Cancer Plan provided a target of $90 \%$ HPV vaccination coverage for girls by 2030, and a "significant increase" for boys, but with no quantitative target for boys. ${ }^{26}$ The ECO HPV elimination report, which makes extensive reference to male inequities, lists which EU countries have and which countries are planning to introduce HPV vaccination for boys. ${ }^{17}$

## Calls for more sex-disaggregated data

Many of these global policy documents offer high-level descriptions of broad patterns of cancer burden and outcomes, and general cancer control strategies, but without explicit focus on addressing (any)

## "Sex- <br> disaggregated data is critical not only for identifying broader sexrelated patterns in health outcomes but also when trying to understand in detail the specific dynamics that drive these differences."

disparities. This may explain, in part, the lack of disaggregated data for sex and other social determinants in these types of policy reports. By comparison, documents that report that their focus is to address disparities-like the US Disparities report ${ }^{12}$, the ECO HPV elimination report ${ }^{17}$, and the WHO NCD in prisons report ${ }^{19}$ —present and discuss more disaggregated data in support of their focus.

Although there was limited use of sex-disaggregated data across the documents, a couple of documents did acknowledge the importance of sex-disaggregated data-noting that this is needed to understand and redress inequalities. ${ }^{23,24,28,29}$ For instance, the need for disaggregated data is noted in the 2022 NCD Alliance's joint submission to the second WHO consultation on the updated Appendix 3 of the Global action plan for the prevention and control of NCDs 2013-2030. They highlighted the gap in data on young people, as well as the limited use of sex-disaggregated data for analysis of intervention impact:

> "Also, NCDs do not affect women and men in the same way. It seems gender-disaggregated data was only used for the prevalence and relative risks of the NCDs analysed for each risk factor, while it is unclear if the analysis of the interventions' effect size and other parameters was disaggregated" (pg. 4). ${ }^{29}$

Sex-disaggregated data is thus critical not only for identifying broader sex-related patterns in health outcomes but also when trying to understand in detail the specific dynamics that drive these differences, as well as the various ways that health interventions might act on these differences.

## Reference to gender and gender disparity

The presence or absence of sex-disaggregated data is one way to measure engagement with men's health needs. Some of these reports also included more general discussions of 'gender', 'gender disparities', 'gender inequity', or 'gender inequality' in relation to cancer outcomes and interventions. Gender is an important social determinant for cancer, and the extent to which documents reflected an awareness of these gendered disparities is a core concern of this report. When policy documents do reference gender disparities, it is critical to examine more closely what gender disparities were identified and whether this was accompanied with a gender analysis of the underlying drivers of gender disparities. For example, did documents focus on sex-specific cancers only e.g., cervical, breast cancer for women (this was most common), and prostate cancer for men (next most common). Or did they go beyond this sex-specific focus, for instance, examining reasons for, or recommended responses to, gender disparities in non-sex specific cancers such as lung, liver and colorectal cancer.

It is also important to examine whether and if awareness of gender disparities included an awareness of male inequities in the prevalence of, morbidity from and mortality for top cancers, and whether recommendations and guidelines made explicit how these male inequities would be addressed. This section focuses only on general
reference to 'gender' in these policy documents and the following section reports on specific recognition and discussion of inequities among men.

For the most part, there was little mention of the term 'gender' across these policy documents. Of the 14 documents (50\%) where the term 'gender' was mentioned at all, this was usually only in a cursory fashion (i.e. only mentioned once or twice at most, and usually in a generic way, typically, as one determinant in a list of other social determinants for cancer prevalence and outcomes). A report might argue, for example, that age, gender, race, ethnicity, socio-economic status, disability and so forth are all important determinants of cancer risk and outcomes, without exploring the gendered dimension in any further detail.

In the UK government's 2011 report Improving Outcomes: A Strategy for Cancer, the authors lay out steps for health and care services to drive improvements in cancer outcomes, but there is little mention of gender or gender disparities. Gender is briefly noted, once as a determinant alongside other social determinants of inequalities in cancer care and once in the presentation of disaggregated hospital bed use by gender (24). ${ }^{24}$ Similarly, the UICC advocacy agenda 2023-2025 draft report refers to gender as a determinant of disparities in cancer, alongside other determinants such as age and ethnicity. ${ }^{30}$

In the 2020 WHO Report on Cancer, gender is referenced a few times as a determinant of inequalities, for example:
"Cancer cases and deaths occur unequally. Social and economic inequalities such as differences in income, education, housing, employment, diet, culture, gender, ethnic group and environment can affect the cancer burden, and socially and economically disadvantaged populations have poorer outcomes..." (pg. 32). ${ }^{22}$

They note that service delivery models should address inequalities that result from gender and other social determinants. They also refer to gendered impacts of cancer care where the implication is that women carry an increased financial burden, noting: "Gender inequality [is] a source of inequitable financial burden on patients" (pg. 148)..22

The 2017 WHO Early cancer diagnosis report gives a bit more detail, as it identifies gender-related factors and norms as a determinant for barriers to care and influencing inequitable delays in care seeking. They note that "Culturally or gender-insensitive health-care services can further deter patients from seeking care." (pg. 18). To illustrate this, they give the example of women who may delay breast or cervical cancer services due to the absence of female health workers. ${ }^{28}$ However, the lack of male health workers to address male health needs, or other possible causes of men's delayed use of services, was not directly addressed in any of these documents.

Europe's Beating Cancer Plan also highlights gender as a determinant of cancer disparities in terms of differences in risk levels, access to care, and socio-economic levels, noting that: "The Cancer Plan also takes into account health determinants, including education, socioeconomic status, gender, age, and employment" (pg. 9). ${ }^{26}$ It notes briefly that the "role of genetics and genomics and gender differences in cancer has increased enormously," ${ }^{26}$ but does not explain this further. Gender pay gaps are also
referred to in the report. Again, however, how this is related to disparities in cancer outcomes is not explained (though it is likely they implied inequalities in access to care for women).

Reference to gender determinants in these documents are usually not explicitly linked to deeper discussions of gender disparities in cancer care. In places, there are links made to the need for considering gender in cancer interventions. Terms such as '[taking a] gender perspective', 'gender equality', 'gender-appropriate', 'gender-mainstreaming', and 'gender-neutral' are common in these sections. The WHO early diagnosis report, for example, states that health care has to be 'accessible, affordable and culturally and gender appropriate" (pg. 13). ${ }^{28}$ Europe's Beating Cancer Plan calls for "ensuring gender-balanced participation" (pg. 11) to reduce inequalities: ${ }^{26}$
> "To reduce inequalities, HealthyLifestyle4All will focus on involving people with low socioeconomic status and disadvantaged groups, such as people with disabilities or people with a minority racial or ethnic background, and ensuring gender-balanced participation." (pg. 17$)^{22}$

The Malawi National Cancer Plan notes that gender should be a central consideration: "Gender mainstreaming shall be central in the planning and implementation of this policy and its overarching National Cancer Control Program (NCCP)" (pg. 15) ${ }^{18}$, but does not explain what this means. WHO's Draft Action plan for reducing harmful alcohol use recommends the need for a "gender perspective and life course approach" (pg. 10) when aiming to optimize the coverage and impact of alcohol policies and to achieve the SDG goal of gender equality. ${ }^{23}$

Four documents (14\%) commented directly or indirectly on the gendered nature of the health workforce and the need for gender and racial diversity in the workforce, including in prisons. ${ }^{22,19,26,28}$ One of these also referred to the gendered social organization of care by noting the inequitable burden of cancer care on females as informal caregivers. ${ }^{26}$

In most cases, the documents provide little to no further explanation of what was meant by gender-sensitive interventions. There was also little to no follow-through in terms of them applying a gender-informed approach in the recommendations presented in these documents. Where there is mention of gender inequality or gender discrimination, it was sometimes implying inequality for women, but this is not spelled out either. As mentioned earlier, this report used a variety of terms for intervention strategies that consider gender but did not provide details of what this entails.

One report, however, stands out for its extensive engagement with issues of gender. The ECO report on HPV elimination references gender in several ways: from listing gender as a generic determinant and identifying sex-disaggregated disparities in outcomes to highlighting male health inequities in burden of disease and HPV vaccination. ${ }^{17}$ The report addresses the distribution of HPV-related cancers for both genders, and identifies male inequities in HPV vaccination coverage. The report argues that:
"Now is the time for decisive action to create an HPV-cancer-free future for men and women across Europe" (pg. 3). ${ }^{17}$

The appearance of men in a broad statement about the problem of HPV is unusual as most HPV documents highlight women. Throughout the report, the authors consistently use a gender lens to describe gender considerations associated with prevention (via gender-sensitive HPV vaccination and HPV screening), health promotion (via gender-sensitive awareness and messaging), and better treatment for HPV cancers. Their key recommendation for achieving the HPV-elimination objective is a 'gender-neutral' vaccination strategy, which promotes "Universal (or 'gender-neutral') HPV vaccination for adolescents and optimal levels of uptake for girl and boy adolescents" (pg. 6). ${ }^{17}$

## Gender in relation to men's health: general

Beyond a general awareness of gender disparities in cancer prevalence and outcomes, it was important to determine if the documents reflected a specific awareness of male health needs. For example, do they report on gendered patterns of cancer burden for the most common nonsex specific cancers, such as lung, colorectal and liver cancer? Do they identify and engage with the known higher prevalence and mortality among men for these common cancers? Further, when the most common sex-specific cancers are addressed, do they report on these for both women (e.g., cervical and breast cancer) and for men (prostate cancer). Beyond a description of the gendered burden of disease, we also looked at the extent to which policy recommendations include a gendered lens with respect to the health needs of men. For example, was there an acknowledgement of the need for a gender-informed approach to interventions, and if so, do recommendations address male inequities in cancer.

Finally, do the documents provide a gender analysis that aims to explain the underlying reasons for gender disparities and male inequities? Does their gender analysis include explanations for why male health-sensitive interventions are needed and how such interventions can improve the cancer care of men? Awareness of and engagement with male health inequities is critical if these inequities are to be addressed. To improve the impact of cancer policy recommendations, it would be important that interventions take a gender-informed approach that appropriately addresses the gendered patterns of risks, barriers and facilitators for both women and men.

Most documents (25 out of the 28 documents, or $89 \%$ ), mentioned women/females/girls in one way or another. Three (11\%) documents did not mention women at all. ${ }^{23,31,32}$ Fewer documents made mention of men (19 documents, or 68\%). Nine documents (32\%) made no mention of the term 'men' and related terms in relation to cancer. $23,28,30,31,32,33,34,35,36$ However, in some of the 9 documents that did not reference the term 'men', there was still reference to prostate cancer. $23,28,33,35$ The number of times terms for women were mentioned ranged across documents from one mention to, in one report, 322 times. The number of times terms for men were mentioned ranged from one mention to, in one report, 180
times. The high number of references to women and men (322 and 180 times, respectively) was found in the US Disparities report² but this is an outlier (and also didn't reflect any substantive engagement with issues of gender). Most commonly, the terms related to men or women occurred fewer than 20 times in documents.

In documents where there were references to women/females/girls, these references were typically in relation to sex-specific cancers (cervical and breast cancer), especially cervical cancer screening. Women/females/ girls were also specifically mentioned in relation to recommendations for HPV vaccination in the report on women as a minority group in European prisons. ${ }^{19}$ There is passing reference to increased health risks to women, for example, the risk of higher exposure to radiation during lung cancer screening compared to men ${ }^{37}$, and increasing female smoking rates. ${ }^{20,21}$ The WHO prisons report focused on needs of women prisoners more than those of male prisoners as women were considered a minority population with higher health needs: "women with a history of incarceration have a higher risk than men of multiple chronic diseases." (pg. 4). ${ }^{19}$

Most documents that mentioned men and men's health needs, did so in cursory manner, often via a couple of one-off mentions of men. Highlighting male risk factors, for example, a number of reports showed higher male rates of smoking as a risk factor $16,18,20,21,22$, or referred to gendered alcohol use ${ }^{18,23,38}$ and differences in body mass index (BMI). ${ }^{3}$

One of these documents, the UNFP report Responding to the Challenge of Non-communicable Diseases linked harmful use of alcohol to its negative effects on male fertility ${ }^{38}$ which was the only direct references to male sexual health across these documents. The Malawi National Cancer Plan provided gendered targets for reducing tobacco and alcohol use that included men.

One report mentioned men in passing, noting that NCDs affect men and women differently, and that costing studies should take this into account. ${ }^{29}$

Where other non-sex-specific high prevalence and high mortality cancers were mentioned (lung, liver, colorectal, oesophageal, stomach), there was often no or cursory reference to gender differences for men. The burden on lung cancer in men is addressed briefly in a few documents. For example, the 2021 report by the Global Lung Cancer Coalition notes that lung cancer is the most commonly diagnosed cancer in men in 36 countries. ${ }^{21}$ The US Disparities report notes that lung cancer is the leading cause of cancer mortality amongst black men, and the second leading cause in black women. ${ }^{12}$ The same report also notes the declines in death rate from multiple myelomas in black men and black women, compared to white men.

Men are mentioned alongside women as being eligible for screening for bowel cancer in three documents. ${ }^{16,22,24}$ One of these reports, the 2011 UK government cancer strategy, makes reference to men's poorer uptake of screening and the need to address this:
"Given that fewer men take up bowel screening than women, DH
commissioned the Men's Health Forum to look at why this might be and to recommend actions that will encourage more men to actively consider taking up the offer of screening" (pg. 69).24

Reducing cancer inequalities across the entire disease pathway is one of the ten flagship initiatives in Europe's Beating Cancer Plan. They note that are major differences and inequalities in cancer prevention and care between and within Member States in "access to prevention programmes, in rates of early cancer detection, diagnosis, treatment, survival and measures to improve quality of life of cancer patients and survivors" (pg. 21). ${ }^{66}$ Gender differences are highlighted, in this case the disparity in men's health, and underlying reasons are given:

> "For instance, mortality rates from colorectal cancer are substantially higher among men than among women. Differences in survivorship and access to care can be explained by gender differences, a combination of lower exposure to risk factors, better access to screening programmes and health services, and better capacity to absorb the social and financial consequences of cancer. Furthermore, persistent discrepancies can also be observed for women, older people, persons with disabilities, and disadvantaged and marginalized groups, like people with a minority racial or ethnic background and people living in poverty" (pg. 21). ${ }^{26}$

Of interest is that this reference to men's inequality is followed immediately by reference to "persistent discrepancies" for women and other groups. And no similar references to male inequity for non-sex specific cancers is made in the rest of the report.

In sum, for the most part, there was little to no reference to gender disparities in descriptions of the most common cancers, including lung, liver, colorectal, esophageal, stomach and bladder cancer. References to men's health inequities as an illustration of gender disparity in cancer are rare. Except for a few reports, these were cursory references to men and cancer, with no or little analysis of underlying reasons or ways to address gender differences. Men's health was mostly addressed through references to prostate cancer and HPV vaccination.

## Gender in relation to men's health:

## prostate cancer

The most direct reference to men's health can be found in these reports' discussions of prostate cancer and HPV vaccination. With respect to prostate cancer, common references are to the burden of disease of prostate cancer, often alongside a list of other cancers of interest ${ }^{12,16,18,39}$ and the geographical distribution of prostate cancer-related mortality. ${ }^{16}$ Other mentions include the following: the need to strengthen prostate screening ${ }^{28}$, a free screening initiative in Nigeria that included prostate screening alongside cervical and breast cancer screening ${ }^{40}$, and the need to include prostate cancer treatment in the accessible medicine initiative. ${ }^{35}$ Europe's Beating Cancer Plan notes the intention to update prostate cancer screening recommendations alongside extending
screening recommendations for lung cancer. ${ }^{26}$ This is in fact done in the EU Council's 2022 recommendations. ${ }^{33}$ The WHO report on NCDs in prisons notes that prison populations present at late-stage for diagnosis for prostate cancer (as is the case for screening for lung, cervical, colon, breast cancer), and that screening can detect such cancers earlier. ${ }^{19}$

More detailed discussion was found in the UK government's 2011 report on a strategy for improving cancer outcomes. It notes the need for increased awareness of prostate cancer, while also cautioning against over-diagnosis of prostate cancer that can result from prostate cancer screening. ${ }^{24}$ The report highlights the complexity of decision making about prostate treatment options, and recommends that men be given sufficient time to consider treatment options. ${ }^{24}$ They also report on improvements in patient satisfaction with prostate and penile cancer treatment, and greater provider compliance with testicular treatment guidelines.

Nearly a decade later, the New Zealand Cancer Action Plan 2019-2029, expresses a similar concern about the potential harms of screening for prostate cancer. ${ }^{39}$ The plan notes that prostate screening is not recommended in men without symptoms at present, that the harms of over-diagnoses and treatment outweighs the benefits for asymptomatic men, and that new research will be conducted for an evidence-based assessment on balancing the harms and benefits of prostate screening. They recommend an online tool to facilitate informed decision-making between men, their families, and health practitioners. Finally, they recommend that Quality Performance Indicators (QPIs) be developed for prostate and lung cancers. Of interest is that this report also calls for human rights approaches to address disparities and to address personalised care. They illustrate this with an example of how the health needs of a man are influenced not only by gender but also intersecting social determinants such as age and socio-economic status:
"...For example, a patient may be a black older male, who comes from a disadvantaged community. Ensuring he receives appropriate care and that his needs are met in the way that he wishes them to be met will require a personalised approach" (pg. 69).24

The need for a human rights approach to addressing gender inequalities in health is also a core part of the motivation for gender-neutral HPV vaccination recommendation in the ECO HPV elimination report. ${ }^{17}$

The US Disparities report makes multiple references to prostate cancer and provides the most detailed description of how men are affected by this disease across the continuum of cancer care. ${ }^{12}$ The report also mentions the burden of disease of other male-related cancers such as penile and testicular cancer, as well as the impact of rare, but aggressive forms of male breast cancer. The focus in this report, however, is on disparities between ethnic and other minority groups, within one gender. Notably, this is the only report that addresses negative effects that were associated with the dropping of the recommendation for routine prostate cancer screening. It notes that prostate cancer doubled for black men after 2012, when routine PSA screening was no longer recommended:
"Following the 2012 USPSTF recommendation against routine prostate-
specific antigen screening, incidence of metastatic prostate cancer more than doubled during 2012-2017 among non-Hispanic Black men ages 50-69 compared to non-Hispanic White men (484)" (pg. 81). ${ }^{12}$

In this report, prostate cancer is used as an example to illustrate how equal access along the full continuum of care can reduce cancer disparities. They report on other social determinants affecting prostate cancer care, such as health insurance status. For instance, in 2018 in the US, only $8.9 \%$ of uninsured men aged 65 and above had up-to-date prostate cancer screening, compared to $34.4 \%$ for men with private health insurance. They note that updated USPSTF recommendations are for periodic prostate-specific antigen-based tests, as recommended by the health care provider, for men ages 55-69. They caution that earlier PSA screening may be required for black and other minority men as there are indications that screening from as early as age 39 may reduce the probability of death by $25 \%$.
"Some cancer-focused organizations now recommend that Black individuals start a dialogue with their physicians at the age of 45 to make an informed and shared decision about screening for prostate cancer" ${ }^{\prime \prime}$ pg. 81). ${ }^{12}$

In their latest screening recommendation, the European Union Council recommends prostate cancer screening alongside screening for other incidence and mortality cancers, noting that one of the objectives is:
"Extending cancer screening programmes to lung and prostate cancer as well as to gastric cancer in those countries or regions with the highest gastric cancer incidence and death rates" (pg. 3). ${ }^{33}$

## Gender in relation to men's health: HPV vaccination

Men and boys were also referred to commonly in documents about HPV vaccination. This was usually in the context of recommendations or guidelines about HPV vaccination for girls and women to reduce HPV infection-related cancers. There were variations across documents on the need for HPV vaccination for boys and men. This ranged from no mention of boys and men on the one side of the spectrum to recognition of the value of male HPV vaccination (but not as high a priority as for females) to recommendations for equal application of HPV vaccination for both genders on the other end of the spectrum.

The recommendation for HPV vaccination for girls only is long standing. For example, the UK government's 2011 report recommended HPV vaccination for girls only²4, as did the WHO 2017 Tackling NCDs report. ${ }^{36}$ Over time, there is increasing recognition of the value of HPV vaccination for boys and men, but even the most updated guidelines still differ. For instance, the World Code Against Cancer report recommends HPV vaccination women and 'possibly for men' as one of the twelve 'codes' or ways to reduce cancer (pg. 2). ${ }^{16}$ The 2019 UNFP report responding to the challenges of NCDs recommends HPV vaccination for both girls and boys,

## "40 countries offer HPV vaccination for males and 170 offer it for females."

noting that this could reduce not only cervical cancer, but also penile and oropharyngeal cancers. ${ }^{38}$

In some documents, recommendation for male HPV vaccination is considered as secondary, optional, and/or with unspecified targets. A flagship initiative of Europe's Beating Cancer Plan is a 90\% target for HPV vaccination for girls and to 'significantly increase' vaccination for boys by 2030, but without a quantitative target for boys. ${ }^{26}$ The World Health Assembly recently published a 2022 progress report on implementation of the global strategy for the elimination of cervical cancer. It reports only on progress of HPV vaccination for girls, but notes that 40 countries also offer HPV vaccination for males and 170 countries offer it for females. ${ }^{27}$

A couple of other documents referred to the need to continue investigating HPV vaccination for men. Recently, a WHO expert group (2022) advised that HPV vaccination guidelines for girls and women be implemented as a primary task, and as a secondary task, for men and for other vulnerable groups. ${ }^{25}$ They request a WHO framework be developed to address these secondary target groups:
"SAGE requested WHO to develop a prioritization framework to assist countries in identifying secondary target groups for vaccination, such as boys, older men and women, and HIV-infected individuals, based on disease burden, affordability, cost-effectiveness, herd effects and programme feasibility" (pg. 12). ${ }^{25}$

The cost effectiveness of extending HPV vaccination to men is also a consideration in the WHO 2020 report on cancer. ${ }^{22}$

There are exceptions to the above approaches that focus on female HPV vaccination as the primary goal. Since 2019, several documents make gender-sensitive recommendations that call for HPV vaccination for both genders. This is referred to as a 'gender-neutral' approach, or 'universal' vaccination. It involves a harmonizing of the HPV vaccination recommendations for both genders and across the age groups; that is, having the same HPV vaccination strategy for girls and boys, as well as for women and men in the relevant age groups. The UNFPA 2019 report on responding to the challenges of non-communicable diseases states that evidence-based interventions should deliver HPV vaccines for both girls and boys (9-13 yrs.) to prevent cervical cancer. ${ }^{38}$ The document noted that HPV vaccination can also prevent penile cancer. The New Zealand cancer plan does not specify that both genders are included, but this seems to be implied:
"The HPV vaccine is recommended for those aged 9 to 26 years; school immunisation programmes and general practices offer it to students in year 8" (pg. 39). ${ }^{39}$

In the US Disparities report, there is a reference to an updated CDC 2019 gender-neutral HPV vaccination recommendation. ${ }^{12}$ Gender-neutral HPV vaccination recommendations are also found in the 2020 and 2021 HPV vaccination guideline of the American Cancer Society (ACS) ${ }^{41,42 \text {, and in }}$ the 2020 ECO HPV elimination report. ${ }^{17}$ The 2020 ACS updated guideline document makes gender-neutral recommendations for both girls and boys, as well as for older groups. ${ }^{42}$ In addition, it also recommends
extending the HPV vaccination initiation age to nine years for boys, in line with the age of girls, noting that vaccination works best if given to children between the ages of nine and 11 . Further, it harmonizes the recommendation for females and males up to 26 years, to receive catchup vaccinations. The document argues that harmonized vaccination guidelines for both genders are more feasible to implement than nonharmonized guidelines:
"Having the same recommendation for men and women is simpler and more feasible for communicating and implementing vaccination efforts." (pg. 4) ${ }^{42}$

The most extensive gender analysis of the need for a gender-neutral strategy is found in the European Cancer Organisation's 2020 HPV elimination report. ${ }^{17}$ The document makes several arguments for why men's HPV-related health needs require more focused attention, and their recommendations go beyond HPV vaccination itself. The first argument is that female vaccination alone does not provide sufficient protection from HPV for heterosexual men:
> "The vaccination of females alone will not provide effective protection for men against HPV infection. Unvaccinated females - such as those too old to have been offered routine vaccination or women who, although eligible, did not receive it - remain at risk of infection and can pass the virus on" (pg. 10) ${ }^{17}$

The ECO report also notes that higher risk groups like men who have sex with men (MSM) do not get any protection from female vaccination.

The second argument is that men have a poorer immune response to HPV compared to women which leaves them more vulnerable to reinfection:
> "The case for vaccinating boys against HPV is reinforced by the fact that men have a poorer immune response to HPV infection than women. Men are less likely to seroconvert following infection, leaving them more vulnerable to re-infection. HPV infection rates appear to stay constant in men, independent of age, whereas HPV prevalence in women is highest during 18-24 years of age and then decreases until middle age" (pg. 10) ${ }^{17}$

The third argument is based on human rights and equity principles and the unfairness of excluding men from a potentially life-saving intervention.
"Excluding men is unfair, and in some jurisdictions possibly unlawful on grounds of sex discrimination, as it makes a potentially life-saving intervention unavailable solely on the grounds of sex. Universal vaccination would also lead to greater equity between the sexes, between countries, and between income groups (in the absence of national programmes, wealthier families are choosing to purchase vaccines for their sons or daughters)" (pg. 10). ${ }^{17}$

Finally, there is an argument for the long-term cost effectiveness of universal HPV vaccination:
"In 2018, the highly influential Joint Committee on Vaccination and

Immunisation (JCVI), the UK government's vaccination advisory committee, concluded that vaccinating both boys and girls is costeffective, even when over $80 \%$ of girls are vaccinated, if the impact of HPV-related diseases in the long-term is taken into account" (pg. 10). ${ }^{17}$

It is acknowledged that cost effectiveness modelling would be highly variable for different settings and argue that cost effectiveness should not the sole decision-making factor; rather, they argue that "Issues of equity, ethics and patient experience must also be taken into account" (pg. 10). ${ }^{17}$ The goal of eliminating cervical cancer will also be achieved more quickly with gender-neutral vaccination than with female-only programmes:

The key recommendation is for HPV prevention via a gender-neutral vaccination programme for adolescents, with a target of at least 90\% vaccination rate for adolescents of both genders, by 2030. They also note that gender-neutral vaccination programmes should be considered for high-risk groups (including MSM, migrants and sex workers), and older age groups. The second recommendation for early detection through cancer screening also acknowledges men. They refer to cervical cancer screening, and note that screening for other HPV-related cancers, including those affecting men, are either not yet available or are insufficient:
"Currently there are no screening programmes available for any of the other HPV-caused cancers, including those affecting men. Currently available screening tests for oropharyngeal cancer are insufficiently accurate and the benefits and potential harms (such as overdiagnosis or unnecessary treatment of patients with false-positive results) are unknown. Screening for anal pre-cancers is technically possible and has been suggested for high-risk groups, such as men who have sex with men, people with HIV/AIDS, and women with a history of HPVcaused cervical, vaginal or vulval cancers. However, the evidence of benefit has not yet been established" (pg. 15).'17

The third recommendation is to get better treatment and improved survivorship for HPV-related cancers for both women and men. Here the ECO report refers to the low 5-year standardized survival rates for HPVrelated cancers in the US, with penile cancer survival rates being the lowest at $47 \%$. The fourth recommendation is for education and raising awareness about HPV and the associated risks. Additionally, cross-cutting recommendations are made regarding the importance of collaborative and governance mechanisms to implement the four action areas. This includes gender-neutral HPV vaccination programmes being in place in all European countries by 2030, with progress monitored by the European Cancer Dashboard. ${ }^{17}$

## Closing Reflections on the Consideration of Men in Global Cancer Policy

Across these policy documents, men were addressed most directly and substantively in policies that dealt with prostate cancer and, to some degree, in those that dealt with HPV, HPV vaccinations and HPV-related
cancers. A couple of documents provided a more thorough gender analysis, detailing why addressing the specific health needs of one gender and/or gender inequity in general, were important. In particular, the European Cancer Organization's 2020 report on "Viral Protection. A Four Step Plan for Eliminating HPV Cancers in Europe", detailed several principles for why HPV vaccination was important for protecting men's health.

While more than half of the documents reviewed included some mention of sex or gender, or presented some degree of sex-disaggregated data, on the whole, there was little substantive attention paid to the gendered dynamics of global cancer epidemiology and intervention. And when there was mention of gendered aspects of cancer, the focus was most often on women. This review of cancer policy documents from global organizations makes clear, therefore, that significant policy gaps remain when it comes to the consideration of men's needs, experiences and preferences in the global fight against cancer.

There are some reasons for optimism, however, beyond the recent developments in HPV vaccination and prostate cancer screening. First, men's health generally is receiving more attention from the WHO globally and regionally (a report is about to be published by PAHO on men's health in the Caribbean). The publication of the report of the Lancet Commission on Gender and Global Health (expected in late 2023) is likely to highlight the need for greater attention to be paid to men's health as well as women's health. The publication of the report of the Lancet Women and Cancer Commission (also expected in 2023) will show the value of a gendered analysis of cancer. The recently-agreed collaboration between GAMH and ECO on men and cancer will help to drive the issue in the European region and ECO has already established a men and cancer workstream.

The EU's new Cancer Inequalities Registry addresses sex and gender alongside other inequality issues and they are also mentioned in the European Commission/OECD reports on cancer inequalities published for each EU member state plus Iceland and Norway in February 2023. And there is a steady growth in research and evaluation related to interventions that can reduce men's risk-taking and improve their use of services to support cancer-specific interventions.

There is now, clearly, a significant opportunity to push these issues forward. The following section thinks through some strategies for how to take advantage of this moment.


## Policy advocacy for men and cancer

Given the relative lack of substantive attention to questions of men, gender and cancer in these global policy documents, it is vital to think more deeply about where the windows of opportunity might be for increasing the recognition of men's cancer needs in global policy and how best to take advantage of them.

There have been a number of promising developments in the last 10 years in securing greater attention to these issues. A few of these have focused on men and cancer in particular, including White et al's 2010 paper ${ }^{9}$ on men and cancer in the UK, the 2013 report on men and cancer in Ireland ${ }^{11}$, and the recent 2022 report on the Men and Cancer Roundtable hosted by the European Cancer Organisation ${ }^{10}$. There have also been a number of national men's health policies developed most prominently in Ireland, but also in Australia, Brazil, Iran, South Africa, Malaysia, and the WHO European Region. The attention to cancer in these documents varies substantially, but they represent an important foundation on which to build future national and global policy initiatives around men and cancer.

One simple but useful framework with which to think about the challenges and opportunities of policy advocacy is Kingdon's 'three streams' model of policy windows of opportunity and agenda setting. ${ }^{43}$ This approach begins with an analysis of the 'problem stream', the 'policy stream' and the 'politics stream' related to a policy issue. The Problem stream is the current understanding among stakeholders of the nature, scale and impacts of the problem at hand. The Policy stream is comprised of the policy solutions-real or potential-that are on the table for debate and decision-making by those stakeholders. And the Politics stream is the set of external events, institutions and conditions in the political environment that can either close down or open up opportunity for policy change.

Kingdon's model argues that when all three streams intersect at the same time, an alignment that can be carefully facilitated by 'policy entrepreneurs', then policy issues can move 'up the agenda' and policy change is more likely. Below are reflections and recommendations about policy advocacy strategies for moving men and cancer up the global policy agenda, organised by these three streams.

## The Problem Stream

Developing the problem stream requires both the production of new knowledge about a problem as well as the translation of new and existing knowledge about the problem in all of the spaces with policy actors might be. For men and cancer, strengthening the problem stream will require policy advocates to:

- Build a robust, nuanced and diverse research evidence base about the problem. Cancer determinants and outcomes are complex. Though the overall burden of cancer falls disproportionately on men, there are critical variations among sub-groups of men, across different settings, and for different cancers. Recognizing 'men in all their diversity' means building an evidence base that speaks to the widely varying needs and experiences of different men. Researchers should also ensure they are not missing important and transferable lessons from research in other areas of health and illness. Many of the critical gender-influenced risk factors for cancer are also risk factors for other communicable and non-communicable diseases. There is a significant literature on men, HIV and sexual and reproductive health, for example, that would offer many insights for those building research and policy on men and cancer.
- Work to make this evidence base accessible. Some of the research on men's health that has had the most policy impact has been research that is both rigorous and respected scientifically and disseminated in ways that reach audiences beyond the typical journal article. Sarah Hawkes' work on men and tobacco and alcohol use is a good example of this, as is Shawn Malone's work with Population Services International (PSI) on the needs and experiences of men living with HIV. Evidence only becomes impactful as part of the problem stream if it is packaged and delivered strategically.
- Leverage interest in existing areas of concern. It is often useful to build deeper knowledge around a health problem and/or population by beginning with an aspect of that problem and/or population that is currently on the policy agenda. For example, it may be strategic to make use of the ongoing interest in HPV vaccination and the growing recognition of the importance of vaccinating boys for HPV as well as the renewed interest in prostate cancer screening as a way of building broader interest in and concern around men and cancer more generally. Again, opportunities for working across disease areas (silos) is critical here as well. For example, the current attention to COVID-19 and men's unmet need for COVID-19 vaccination could be an opportunity for linking gender and vaccination concerns across domains.


## The Policy Stream

Developing the policy stream requires, ideally, both the development and evaluation of new strategies for addressing the problem through policy (whether this is high-level guidance and statement of principles, or on-the-ground health interventions). But even hypothetical or untested solutions can be brought to the table if they are intuitive, resonate with indirect parallels in other contexts, do not have obvious harms, and/or have the support of key stakeholders. For men and cancer, strengthening the policy stream will require policy advocates to:

- Build a robust, nuanced and diverse evidence base on promising interventions. As with research about the problem at hand, research
on policy solutions needs to be rigorous and should take into account the tremendous diversity of men's experiences and the contexts in which they live. At the same time, feasible policy solutions are ones that are transferable to similar settings, and 'scalable' within local and national contexts. Developing an evidence base that prioritizes neither one-size-fits-all approaches nor overly customised and locally specific approaches requires a nuanced and theoretically-informed methodology. Like research on the problem, research on the solutions should also actively learn from the experience in other disease domains. There is relatively little work on interventions for men and cancer but there is much more, again, in the areas of men and SRH (including HIV).
- Consolidate and build from emerging best practices for men and cancer. Despite the relative absence of men and cancer in global cancer policy, there are a number of important places in research and policy where these issues have been addressed thoughtfully and in some detail. The Ireland report on men and cancer offers an excellent foundation for specific policy recommendations in this area that advocates can begin with, and then complement it with recommendations from sources like the ECO Roundtable Report and Hawkes' work on men and tobacco. None of these provides a comprehensive, globally applicable or fully evidence-informed set of strategies, but they are an important place to start. Building on and consolidating early gains in a policy area is a critical way to save time and resources and build cross-project learning.
- Leverage the growing number of national and global men's health policies and advocates to develop integrated and holistic strategies. The growing number of countries developing national men's health policies represent a critical opportunity to coordinate with men's health advocates in other sectors, not only to share resources, ideas and momentum, but also to work together to develop more complex, more holistic and better integrated interventions for men's health more generally, that will have benefits for men's cancer outcomes in particular. If national men's health policies are populated by dozens of smaller interest groups each pitching for policy responses specific to their own population group or disease domain, a great deal of both energy and synergy will be drained from the process. As argued above, most of the risk factors for cancer and many of the ways in which policy might intervene to better support men's cancer are not specific to cancer. Developing solutions alongside advocates for other health problems is crucial for a feasible and effective gendered approach.
- Leverage interest in current promising areas of intervention. Recent changes in the prostate cancer screening guidelines have prompted a great deal of confusion and concern among both men and clinicians. More recently, however, a consensus is emerging that a better balance can be struck between the risks of over-diagnosis/overintervention and the risks of under-screening by using risk calculators and MRI scanning to screen in a more targeted fashion. ${ }^{44}$ Policy advocates should be considering the ways in which new innovations
in prostate screening might be a platform not only for increased attention to prostate cancers but to other sex and gender-linked cancers among men.


## The Politics Stream

Developing the politics stream is the most difficult since it by definition involves events, institutions and conditions that are outside of the immediate purview of those working in their own specific policy problem area. However, there is still plenty of value in paying attention to the broader political environment and making strategic use of both predicted and unpredicted situations. For men and cancer, strengthening the politics stream will require policy advocates to:

- Leverage parallel policy development for women, or for men and other health issues. The announcement of new policy initiatives and priorities in adjacent domains can be an important opportunity to advocates for men and cancer. For example, the Men's Health Forum in the UK took advantage of the UK government's announcement of a national women's health strategy to advocate for a national men's health strategy as well. ${ }^{45,46}$ Similarly, the publication of significant research and policy documents around gender and tobacco control at the WHO/FCTC represents an opportunity for advocates for men and cancer to align their efforts with related campaigns.
- Build long-term coalitions and networks with individuals and institutions working on issues indirectly related to men and/or cancer. Making an effective and sufficiently rapid response to changes in the broader political environment requires much more than ad hoc efforts to link across sectors, campaigns and interest groups when an opportunity arises. Policy entrepreneurs who can take advantage of unexpected developments in the broader environment root their success in long-term coalition building that is in turn based on a shared understanding of mutual interests and lessons that can be shared across domains.


## Organizations for advocacy

There are a number of key organisations identified in this review process that GAMH and others should engage with in order to advocate for increased focus on the gender disparities, and more specifically, to advocate for gendered approaches that address male equity in cancer. The Union of International Cancer Control (UICC) is one of the most important of these, with an established advocacy pathway to leading cancer organisations and a focused advocacy agenda of its own that includes high-level meetings, reports and strategic plans that could be important vehicles for raising the issues of men and cancer. The World Health Organization is another key global policy coordinating and advocacy body, with the advantage of strong direct links to national policymaking role-players, institutions and processes. Finally, global
cancer research organisations like the World Cancer Research Fund International (WCRF) and the American Association for Cancer Research (AACR) offer critical opportunities to get the issue of men and cancer built into upcoming research projects and agendas, laying the foundation for future evidence-informed policies that are guided by high-quality research that pays specific attention to the needs of men and cancer.

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## GONE MISSING...

## The Treatment of Men in Global Cancer Policy



## Gone Missing.

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