

Reducing Social Inequalities in Cancer: setting priorities for research

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Social inequalities in cancer are a global problem as is well documented in the World Health Organization International Agency for Research on Cancer (IARC)'s publication *Social Inequalities and Cancer*¹. Inequalities in income, wealth, education and power disproportionately impact on the most disadvantaged individuals, communities, and countries to produce a social gradient in incidence, survival and mortality of many cancers both within and between countries²⁻⁴. On April 16-18 2018, IARC convened a workshop to examine the current evidence and identify research priorities for reducing social inequalities in cancer. International and IARC/WHO experts drawn from many different disciplines presented a series of articles, to be published in an IARC scientific publication: extensive discussion in subgroups and plenary sessions resulted in participants identifying three research priorities.

First, generating knowledge and monitoring progress

Gathering high-quality scientific evidence on the magnitude of social inequalities in cancer and increasing the knowledge on the many dimensions of the problem (socioeconomic, ethnic, racial, gender, cultural, historical, political) is necessary to develop research priorities at the global, regional, national and community level and to inform public health interventions. In all countries from which high-quality data are available, mainly high- and middle-income countries, there is clear evidence of a socioeconomic gradient for the risk of overall cancer mortality and survival from high to low socioeconomic status (SES), with striking differences observed between the lowest and highest SES groups. In low-income countries, data are non-existent or of poor quality, and when available reveal poor cancer outcomes, including often dramatically low cancer survival, even for preventable or curable cancers (e.g., cervix and childhood cancers). These are the consequences of the limited or complete absence of resources and infrastructures at every step of cancer control.

Nonetheless, even in the most affluent countries, cancer outcomes among vulnerable populations, e.g., those living in poverty³, indigenous⁵ and racial minorities⁶, are much worse than other groups.

Producing evidence and monitoring progress in reducing social inequalities in cancer requires: (a) supporting existing high-quality population cancer registries, enabling them to expand surveillance and research on social determinants of cancer incidence, survival and mortality, particularly through linkage of selected, informative social indicators and data sources; (b) establishing de novo population-based cancer registries where information is missing, including in low-income countries and rural areas, that would collect at least some basic social indicators; (c) conducting regular population-based surveillance of inequalities in risk factors (e.g., surveys to collect information on risk behaviours and access to health care).

Second, expanding research focused on prevention

If social inequalities affect all stages of the cancer continuum, from prevention to end-of-life care, prevention has the largest potential for reducing cancer inequalities in all settings. Yet, this area remains largely underfunded, especially relative to the huge financial investments in other cancer-related areas, like basic science and treatment. The grant budget for cancer research in high-income countries specifically allocated to prevention hardly reaches 10%⁷. Understanding both how interventions affect inequalities, and how these interventions, or packages of interventions, can be best designed to reduce such inequalities is critical. Interventions can be wide-reaching, aiming to create equal living conditions (through, for example, fiscal policies and regulation of air quality, food, clean water, healthy housing, and occupational exposures), as well as to reduce inequalities in exposure to risk factors for cancer (including price policies and regulation of cancer-causing products such as tobacco

and alcohol, vaccination against cancer-causing agents HPV, HBV). By nature the solutions require inter-disciplinary approaches across a broad research spectrum and can certainly benefit from engagement of affected communities and other stakeholders.

The scientific evidence for reducing social inequalities in cancer globally calls for an expansion of both research focus and investments in prevention.

Third, focus on equality when implementing and assessing cancer control measures

The workshop emphasized the importance of broad and equitable application of known beneficial interventions directed at every stage of the cancer continuum to all populations, driven by social goals. This requires innovative strategies, political commitment, and public policies to deliver measures supporting a reduction in inequalities, enabling everyone access to “preventive and curative healthcare services, without falling into poverty”; this is the goal of universal health coverage⁸. Countries, communities and individuals with lower socioeconomic conditions, minorities, and indigenous populations are at risk of benefitting only indirectly and with a considerable delay from relevant advances in medicine⁹, likely leading to widening social inequality in cancer care and outcomes. Furthermore, a particular danger is that research emphasis and investments are increasingly (and disproportionately) directed towards “expensive” research or practices. Such practices involve high-tech medical devices, immunotherapy drugs, or more generally precision medicine approaches, for which, the benefits in terms of cancer control are, with few exceptions, often marginal or, in some cases, even offset by harms, such as overdiagnosis and overtreatment¹⁰.

All interventions and cancer control programmes, from prevention to treatment measures, should account for their overall effect and should be explicitly designed, at a minimum, to avoid exacerbating social inequalities in cancer, and ideally to decrease or eliminate them.

Furthermore, for every intervention, progress in reducing social inequalities in cancer outcomes should be monitored, regularly reported on and used to introduce improvements.

A commitment

In a world submerged by massive data flows¹¹, some fundamental social facts (such as poverty) are more likely than other phenomena to be obscured, misconstrued or simply set aside and neglected. Social determinants of and social inequalities in health are no exception: for this reason WHO committed in 2008 to keep them high in the global agenda with the landmark Report of the Commission on Social Determinants of Health¹². Research can be used to effectively decrease social inequalities in cancer^{13,14}. Through this expert workshop, its wider role in convening international cancer leaders and promoting cooperation in research, IARC renews and reinforces today the WHO commitment through its special mission of developing cancer research for cancer prevention. This endeavour will more broadly contribute to meeting the objectives of the non-communicable diseases strategy as part of the United Nations Sustainable Development Goals, provided an enhanced engagement in the agenda for tackling social inequalities in cancer is given the priority it deserves.

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