

## Conclusions. Reducing Social Inequalities in Cancer: Setting Priorities for Research

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**Disclosures:** Ahmedin Jemal is employed by the American Cancer Society and works in the intramural research department, which received a grant from Merck Inc for research outside the submitted work; however, his salary is solely funded through American Cancer Society funds. The remaining authors report no conflicts of interest.

doi: 10.3322/caac.21463. Available online at [cacancerjournal.com](http://cacancerjournal.com)

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Social inequalities in cancer are a global problem, as has been well documented in the World Health Organization (WHO)/International Agency for Research on Cancer (IARC) publication *Social Inequalities and Cancer*.<sup>1</sup> Inequalities in income, wealth, education, and power disproportionately impact the most disadvantaged individuals, communities, and countries to produce a social gradient in the incidence, survival, and mortality of many cancers both within and between countries.<sup>2-4</sup> From April 16 to 18, 2018, the IARC convened a workshop to examine the current evidence and identify research priorities for reducing social inequalities in cancer. International and WHO/IARC 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 3 research priorities.

### **First Priority:**

#### **Generating Knowledge and Monitoring Progress**

Gathering high-quality scientific evidence on the magnitude of social inequalities in cancer and increasing knowledge regarding 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 levels and to inform public health interventions. In all countries from which high-quality data are available, mainly high-income 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, with striking differences observed between the lowest and highest socioeconomic status groups. In low-income countries, data are nonexistent or of poor quality and, when available, reveal poor cancer outcomes, including often dramatically low cancer survival, even for preventable or curable cancers (eg, cervical 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 (eg, those living in poverty<sup>3</sup> and Indigenous<sup>5</sup> and racial minorities<sup>6</sup>) are much worse than outcomes in other groups.

*Producing evidence and monitoring progress in reducing social inequalities in cancer require: 1) supporting existing high-quality population-based 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; 2) 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; and 3) conducting regular population-based surveillance of inequalities in risk factors (eg, surveys to collect information on risk behaviors and access to health care).*

### **Second Priority: 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%.<sup>7</sup> 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 and to increase access to early detection (including price polices; the regulation of cancer-causing products, such as tobacco and alcohol; vaccination against cancer-causing agents such as human papillomavirus and hepatitis B virus; and cervical cancer screening). By nature, the solutions require interdisciplinary approaches across a broad research spectrum and can certainly benefit from the 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 Priority: Focus on Equality When Implementing and Assessing Cancer Control Measures**

The workshop emphasized the importance of the 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 health care services, without falling into poverty”; this is the goal of universal health coverage.<sup>8</sup> 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 medicine,<sup>9</sup> 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 toward “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, with few exceptions, are often marginal or, in some cases, are even offset by harms, such as overdiagnosis and overtreatment.<sup>10</sup>

*All interventions and cancer control programs, 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 flows,<sup>11</sup> 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, the WHO committed in 2008 to keep them high in the global agenda with the landmark report of the Commission on Social Determinants of Health.<sup>12</sup> Research can be used to effectively decrease social

inequalities in cancer.<sup>13,14</sup> Through this expert workshop, and its wider role in convening international cancer leaders and promoting cooperation in research, the IARC today renews and reinforces the WHO commitment through its special mission of developing cancer research for cancer prevention. This endeavor will more broadly contribute to meeting the objectives of the noncommunicable 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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