

Need for global action for cancer control

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When the Millennium Development Goals (MDGs) [1] were being developed, priority was given to the problems of the poorest billion people in the world. In terms of health, this was translated into a set of targets of indicators in health that give visibility to maternal and child health, (under) nutrition, acquired immunodeficiency syndrome (AIDS), malaria, and tuberculosis, and a vague catch-all category, ‘and other diseases’. While progress has been made in developing specific plans with budgets to address the named MDG targets, no further work has been carried out on defining what constitute priority other diseases, or which interventions should be emphasized to address them.

In contrast to the situation a few decades ago, the majority of the global cancer burden now occurs in medium- and low-income countries [2]. Assuming an annual increase in cancer incidence and mortality of 1%, by 2030 it could be expected that there will be 26.4 million incident cases of cancer, 17.1 million cancer deaths annually, and 80 million persons alive with cancer within 5 years of diagnosis [2]. World Health Organization (WHO) regions with a large proportion of countries of low- or medium-income will be most affected.

The epidemiological transition is a reality for most low middle-income countries with the exception of several in sub-Saharan Africa. Chronic diseases such as cancers, cardiovascular disease (CVD), and diabetes already exact a considerable toll in these countries, yet are ignored in policy and investment terms by the major international health donors. Further, even in Africa, several chronic diseases exist at extremely high levels: AIDS-related cancers and stroke being just two examples of unmet need.

The MDGs have undoubtedly galvanized unprecedented efforts to meet the needs of the world’s poorest communities. Achieving the MDGs has become a competitive challenge for many countries and will be of immense value to people worldwide. Cancer Prevention and Control needs to acquire the same focus as provided by the MDGs [2]. In many parts of the world, the absence of a specific MDG on cancer (or indeed chronic disease) has led to cancer control taking on something of a lesser role in terms of allocated priority. There needs to be greater incentive developed for low- and medium-resource countries to prioritize cancer and other chronic diseases. A similar argument has been made regarding CVD [3].

A major challenge for many countries is how to find sufficient funds to develop the capacity to treat the large numbers of cancers which will be diagnosed in the coming years. Effective prevention will reduce the risk of cancer and effective screening will allow many others to be successfully

treated for their disease. Cancer control in developing nations must serve to destigmatize cancer and raise governmental and public awareness and dispel the myth which equates cancer diagnosis with death.

Surgery, chemotherapy, and radiotherapy are essential components of the treatment of cancer although it is difficult to measure their availability particularly in low-income countries. The availability of radiotherapy machines can be measured and whether used for cure or palliation radiotherapy has been shown to be cost effective. In high-income countries, over one-half of new cases receive one course of radiotherapy and up to one-quarter of cancer patients may receive a second course [4]. In low- and middle-income countries, the need for radiotherapy is much greater due to late stage presentations and the types of cancer which predominate. As cancers such as cervical cancer are essentially diseases which predominate in low-income countries, radiotherapy is becoming an undeniable necessity in these regions and, simultaneously, it is essential to alter the 70%–30% balance of palliation over cure which exists at present.

Most low- and middle-income countries have limited access to radiotherapy although >20 African and Asian countries have no services at all [4]. In Africa, the actual supply of radiotherapy is 20% of needs while in the Asia-Pacific Region, with >3 million new cases of cancer each year and the need for 4000 radiotherapy machines, only 1200 or so machines exist. Similar shortages exist in Latin America and Central and Eastern Europe.

Total global shortages in low- and middle-income countries are >7000 radiotherapy machines. It is evident that strategies for developing cancer care and therapy services need planning at national level and substantial investment for staff training and equipment.

Although increasingly many medium-resource countries assign high priority in their national health strategies to chronic diseases, including cancer, the donor community and most bilateral development agencies do not as yet consider cancer control a high priority. If cancer is not given higher priority through focused global efforts, health-care systems in low- and middle-income countries will encounter even further problems as the number of cancer cases increase. More and more people will die prematurely and needlessly from cancer, with devastating social and economic consequences for households, communities, and countries alike. Cancer could become a major impediment to socioeconomic development in low-income and economically emerging nations.

The timing is now right to address this growing cancer burden, part of the neglected epidemic of chronic disease and a neglected development goal [5] which is still awaiting action

[6]. The WHO Resolution on Cancer Control (WHA58.22) [7] provides a strong impetus for countries to develop programs aimed at the reduction of cancer incidence and mortality. Although this is a strong incentive, there is an overwhelming and urgent need for leadership and coordination in this area. Compared with other global health communities, the global cancer control community is diffuse and often ineffective.

The world's growing cancer burden must be addressed. Priorities need to be realistic and achievable and prevention must be at the core. Depending on resources and competing health priorities, all steps must be taken to prevent those cancers which are avoidable; to treat those cancers which are treatable; to cure those cancers which are curable; and to provide palliation to those patients who need palliative and supportive care whenever this is needed in the disease trajectory. Prevention of developing cancer; prevention of death in patients with cancer; and prevention of physical and psychological suffering, to the largest extent possible, are the essentials.

The necessity for cancer control and capacity building in countries of limited resources is evident and urgent as is the need to have an equivalent to an MDG to reinforce the importance of Cancer and Cancer Control in countries of all resource settings.

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references

1. UN. The Millennium Development Goals report 2005. 2005; <http://unstats.un.org/unsd/mi/pdf/MDG%20Book.pdf> (4 February 2008, date last accessed).
2. Boyle P. The globalisation of cancer. *Lancet* 2006; 368: 629–630.
3. Fuster V. Cardiovascular disease and the UN Millennium Development Goals: a serious concern. *Nat Clin Pract Cardiovasc Med* 2006; 3(8): 401.
4. Barton MB, Frommer M, Shafiq J. Role of Radiotherapy in cancer control in low-income and middle-income countries. *Lancet Oncol* 2006; 7: 584–595.
5. Horton R. The neglected epidemic of chronic disease. *Lancet* 2005; 366: 1514.
6. Horton R. Chronic diseases: the case for urgent global action. *Lancet* 2007; 370: 1881–1882.
7. Resolution WHA58.22 of the Fifty-eighth World Health Assembly on Cancer Prevention and Control. 2005; http://policy.who.int/cgi-bin/om_isapi.dll?infobase=wha&softpage=All_Frame_Pg42 (4 August 2006, date last accessed).