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Critical factors influencing the establishment, maintenance and sustainability of population-based cancer control programs

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Abstract

Developing and maintaining a comprehensive cancer control program are two distinct entities. Key issues related to building and sustaining cancer control programs include how to integrate initiatives and efforts across multiple constituencies addressing components of the implementation of cancer control and non-communicable disease programs, the processes used in different resource settings to achieve effective drug budgeting, health technology assessment and health economics, and how countries can support public and societal engagement. There are promising examples in both resource-rich and resource-challenged countries of constituencies that have developed programs which can contribute to comprehensive cancer control. Some take advantage of newer technology and information services, while others are more people and patient focused.

Critical issues and factors for establishing and maintaining population-based comprehensive cancer control programs are identified and reviewed.

Key words: ICCC-3, cancer control.

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1. Introduction

Developing and maintaining a comprehensive cancer control program are two distinct entities. Initially, there are problems of data, infrastructure, funding, training, collaboration, obtaining equipment, and developing a plan that is vetted by all parties. In some areas, these plans may be limited by region, or by type of cancers, as well as competing priorities. The approaches to developing comprehensive cancer control plans are well discussed in a number of publications¹⁻³.

In many countries, programs exist which may have overlapping goals, such as tobacco control programs, programs to reduce the burden of cardiovascular disease, and programs to promote healthy nutrition and exercise. Most often, these are separate from National Cancer Control Programs (NCCPs), despite their potential for collaboration. Furthermore, a variety of government agencies and non-governmental organizations (NGOs) continue their own efforts - each focused on activities central to their mission. For example, some may regulate environmental exposures, food safety, occupational safety, tobacco sales, cancer registration, medical care, or pharmaceutical regulation, all of which have implications for cancer prevention and control. Similarly, NGOs may focus on specific types of cancer, survivorship issues, worker's exposures, alternative forms of treatment, or performing community services, and are not necessarily linked with major comprehensive cancer control efforts.

Maintaining comprehensive cancer control programs has many of these issues, as well as additional ones. For example, an initial infusion of money and equipment may generate enthusiasm for a program, but such sources are likely to be transient; one government minister may agree with the goals and priorities for comprehensive cancer control, while his or her replacement has other priorities; personnel who are trained for data collection and analysis, technicians operating diagnostic or treatment equipment, and medical staff may move into other roles; NGOs may change their priorities, and changes in available resources may require all involved initially to rethink their commitments.

The main challenges when transitioning from the development of a cancer control program to ensuring its sustainability include: (a) how to integrate initiatives and efforts across multiple constituencies addressing components of the implementation of cancer control and non-communicable diseases (NCDs) programs, (b) the processes used in different resource settings to achieve effective drug budgeting, health technology assessment and health economics, and (c) how countries support public and societal engagement, and the role of civil society.

The following paragraphs provide examples from organizations and governments with different goals, challenges, and levels of resources of the strategies that are

currently being implemented to overcome the obstacles and maintain and advance cancer control programs. The examples range from local community-based initiatives to national and global initiatives, but all can be helpful in determining the critical factors that influence sustainability and that need to be considered when building a successful cancer control program.

2. Coalition building: a major strategy for non-communicable disease prevention and control in the Philippines

Prescilla Cuevas

The Republic of the Philippines is facing a major challenge from the epidemic of chronic, non-communicable, lifestyle related diseases (NCD). Over the past two decades, it had been evolving a strategy to respond effectively. This emerging strategy is influenced by the nation's history, governance, level of development, as well as its epidemiological situation.

Currently, cardiovascular diseases, cancers, chronic obstructive pulmonary diseases and diabetes mellitus account for almost half of deaths in the country. A recent survey showed that 90% of Filipinos has either one or more of the following risk factors: physical inactivity, smoking, hypertension, obesity, hypercholesterolemia or diabetes⁴.

In the early 1980's, the increasing trend in NCD prevalence had already been noted, and in response, the Philippine Government set up the Non-Communicable Disease Control Service within the Department of Health to develop programs that can address the problem. By the mid 1990's, vertical programs for the prevention and control of cardiovascular diseases and cancers were fully implemented nationwide and various public information and advocacy campaigns focusing on major risk factors were mounted.

In the year 2000, a demonstration project was established to develop an integrated community based model of preventing and controlling NCDs, more consistent with the devolved system of health service delivery. Packaged as the promotion of healthy lifestyle, it focused on three common major risk factors: tobacco use, unhealthy diet and nutrition, and physical inactivity. Currently, this model is now being introduced nationwide and is known as the Integrated Non-Communicable Disease Prevention and Control Program.

The goal of the program is to reduce mortality, morbidity and disability rates caused by these chronic, non-communicable and lifestyle related diseases. It pursues two objectives: 1) reduce exposure of the population to major risk factors of unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol; and 2) increase the proportion of NCD cases appropriately managed and treated. One of the strategies, among many others, that the program uses to pursue its objectives is coalition building.

One of the strengths of the NCD prevention and control efforts in the Philippines was the strong commitment of a wide network of stakeholders. Collaborative work was manifested every now and then in various advocacy activities and guidelines development. However, it was noted that the effect of the work was short lived and lacked congruence and continuity.

It was soon realized that a more formal relationship among the wide network of stakeholders should be established since all are working towards the same objectives. A formal alliance should be able to provide a more coherent, synchronized, well-coordinated action towards the achievement of the same goals and objectives.

A series of processes was put into motion to bring about the formal organization of a national coalition, the Philippine Coalition for the Prevention and Control of NCDs, composed of various medical specialty organizations and societies, professional organizations, non-government organizations, government agencies, and academia. Eventually, a Memorandum of Understanding was signed where each member organization understood that by agreeing to be part of the Coalition, it would contribute to the programs and activities approved by the Coalition Council in consonance with its mandate, while maintaining its own independent programs and avoiding open conflict with similar actions of the Coalition. The activities that would be undertaken would be linked to achieving the agreed core Key Performance Indicators.

Some of the factors that facilitated the process of coalition building were: availability of quality data that provided statistical information regarding the country's NCD and risk factors picture; common goals and objectives; new knowledge on the concept of integrated NCD prevention and control, thus providing specialty organizations the opportunity to work with others in an integrated manner; positive experiences in various short lived collaborative efforts that showed much can be done when done together; meager resources necessitated networking and pooling of resources; credible and valued leadership of the health department; and the cultural trait of the bayanihan spirit (spirit of communal unity or effort to achieve a particular objective) among Filipinos.

The Coalition is already 5 years old and has some successes to celebrate, but there are also lessons that were learned: 1) the need to clearly indicate a plan of action that each member organization can work on and positively contribute to was essential in keeping the coalition intact; 2) the need to regularly reach out to all members and involve them in various activities was imperative; 3) since membership is by organization, there was a need to ensure that permanent representatives were specified to provide continuity of action and decisions; 4) the need to set up a mechanism for proper dissemination and coordination of activities was a priority

consideration; 5) the need to expand its membership to other non-health sectors of the society because the determinants for NCDs lie on the other non-health sectors of the society; and 6) the need to sustain the interest of all organizations to continue working together despite changes in organizational leadership and priorities.

The Coalition has a ten-year timeframe, enough time to show substantial achievements in the Key Performance Indicators. It is hoped that by that time it is still intact and very much alive, fuelled by active localized coalitions reaching down to the grass roots level.

3. IAEA/PACT model demonstration sites in support of cancer control programs in low-resource countries

Massoud Samiei

The International Atomic Energy Agency's (IAEA) experience since 1980, with over \$ 250 million in cancer assistance provided, demonstrates that radiotherapy technology and skills can be transferred successfully to resource-challenged countries^{5,6}. Among all the agencies that have a mission to control cancer, the IAEA is thus among the best-placed to be part of the introduction of sustainable, affordable cancer control programs. The IAEA's Program of Action for Cancer Therapy (PACT)⁷ is putting this to test. PACT Model Demonstration Site (PMDS) pilot projects in Albania, Nicaragua, Tanzania, Sri Lanka, Vietnam, Yemen, and recently Ghana, combine the individual strengths and resources of the ministries of health and their national counterparts, IAEA/PACT, WHO (World Health Organization), IARC (International Agency for Research on Cancer) and other partners and stakeholders to achieve maximum impact. This integrated approach focuses on building the sustainability of all relevant cancer services via timely, planned and balanced investments across the health-care system. PACT and partners have assisted the national authorities in the design, funding, implementation and evaluation of projects focusing on country-specific cancer control priorities by providing technical expertise according to their mandates. PMDS projects have already shown positive signs of progress: all potential national stakeholders have been brought together; cancer control strategies and action plans have been recommended for adoption and implementation by governments; national steering committees have been established; and \$ 23 million has been mobilized. The direct involvement of governments through ministries of health as counterparts represents a supporting framework with a commitment to sustainability, augmented by the IAEA-supported radiotherapy centers, and local leadership to champion the cause of cancer. Synergies achieved by IAEA, WHO, IARC, and NGOs like ACS (American Cancer Society) / UICC (International Union Against Cancer) and INCTR (International Network for Cancer Treatment and Research), the presence of major United

Nations (UN) agencies and also industry, working together with national counterparts to advance comprehensive cancer capacity building, have been critical for IAEA/PACT model's achievements.

4. The Global Health Workforce Alliance

Mubashar Sheikh, Maria Stella de Sabata

The Global Health Workforce Alliance (GHWA) believes that health workers are the cornerstone and drivers of health systems, yet the World Health Report 2006 estimates a health workforce shortage of 4.2 million, including over 1 million in Sub-Saharan Africa⁸. This shortage is a critical constraint to the achievement of health and development goals, as it impairs the provision of essential, life-saving interventions, as well as services for chronic and non-communicable diseases - including cancer - which increasingly affect resource-challenged countries. It is urgent that we increase the numbers of trained health workers and scale up investment in education, skill-mix and remuneration of the workforce to ensure the provision of services and prevent brain drain.

GHWA was created in 2006 as the global focal point bringing together multiple stakeholders for consolidated advocacy and action on the health workforce crisis. The Alliance established mission-oriented, time-bound Task Forces/Working Groups (TF/WG) to address specific challenges in priority areas impacting on human resources for health.

Initial outputs of TF/WG are: framework and action papers; country case studies describing successful scale up models; HRH Action Framework to assist policy-makers in planning, assessing, managing and monitoring the health workforce; and Resources Requirements Tool to estimate and project the costs of planned scale-up of the health workforce. GHWA is involved in the development of a Global Code of Practice on health worker migration, spearheaded by WHO, and works in partnership with civil society through the Health Workforce Advocacy Initiative and the campaign on Positive Practice Environments.

GHWA believes its work can benefit the international cancer control community, which also experiences severe shortages of qualified health workers. GHWA would welcome joining forces for stronger advocacy and jointly finding solutions to the health workforce crisis.

5. Global Community Conversations on Cancer Control

Eamonn Chonair O'Connell

The Global Community Conversations on Cancer Control is a collaborative project between the International Union Against Cancer, the Lance Armstrong

Foundation and the Campaign to Control Cancer, that began on World Cancer Day - February 4, 2009. The project's intention was to have hundreds of volunteers host conversations on cancer and cancer control around the world between February and May. The conversations were designed to create a report that would be provided to world leaders to inform decision making and reshape policy.

Over 300 conversations took place around the world between oncologists, nurses, business leaders, teachers, students, patients, survivors, and lay public, in their homes, businesses, schools and public spaces. The reports from these conversations were collected and compiled into a report by the Center for the Advancement of Social Entrepreneurship (CASE) at Duke University, and then were to be distributed to participants and world leaders at the LAF Global Summit in Dublin, Ireland (August 2009) and the participants of the Global Leadership Forum on Cancer Control in Ottawa (September 2009).

Community Conversations have been helped by three principles. First, the project had worldwide, multi-sector appeal and allowed the collaboration of numerous stakeholders working together to achieve a singular goal. Second, the project had the ability to reach numerous networks, stakeholders and players worldwide, using leads and creative marketing tools to support promotion of the project. Third, the project had a differentiated support team with intentions to recruit, support and encourage registration, hosting conversations and reporting the conversations.

6. Comprehensive Cancer Control Planning Institutes: leadership forums for developing and implementing cancer control plans in Latin America

Luis Antonio Santini, Alejandro Mohar Betancourt, Cynthia Vinson, Alessandra Durstine

In 2006, the American Cancer Society, Centers for Disease Control and Prevention and the National Cancer Institute, along with the International Union Against Cancer, began a pilot project that adapted the US state Comprehensive Cancer Control Leadership Institute model for Latin American countries¹⁻³.

The first Cancer Control Forum assisted four countries (Brazil, Mexico, Peru and Uruguay) in developing strategies to implement national cancer control plans. In 2007, a second Forum was held in Brazil. Four countries (Argentina, Peru, Chile and Nicaragua) participated in an accelerated version of the original Forum and countries that had participated in the first Forum were given advanced training on new topics.

Participants for both Forums included country representatives from Government, Non-Governmental Organizations (NGO's), Cancer Institutes and Cancer Cen-

ters as well as tobacco advocates. Participants sat with their own country team and worked on issues relevant to their countries.

Presentations were interspersed with discussions, facilitated country team activities and a dedicated time for teams to develop action plans for the next six to twelve months. The Forums concluded with a Report Back session to share the action plans and discuss one critical need each country would address. Time was provided for networking with team members and with members from other countries.

7. Public-private-civil society partnerships for cancer control

Johanna Ralston, Alessandra Durstine

With cancer the leading cause of death worldwide by 2010⁹, and significant lack of awareness of or donor support for cancer in low and middle income countries, the gap between need and resources is far too great to rely on traditional donor and civil society approaches to addressing the disease¹⁰, and the social and economic burden of delaying approaches to cancer until it requires clinical care are far too high.

In order to close the gap between knowledge and action, as well as the gaps in information and practice among the various stakeholders with social, political and commercial interest in cancer globally, NGOs including the American Cancer Society are embarking on innovative relationships with public and private stakeholders in Asia, Africa and Latin America to begin to address the burden. Activities include building and strengthening networks of NGOs, improving policies and fostering alliances among healthcare industry, NGOs and the public sector, working with larger employers around preventing cancer and other chronic disease among employees, and using platforms such as the World Economic Forum to draw attention to this critical issue¹¹.

The ACS and other major cancer organizations are seeking to accelerate the prevention of cancer mortality and reduction of overall disease burden. Specific approaches include building capacity of NGOs, engaging with employers and corporate leaders on wellness, corporate social responsibility and leadership, and seeking to place cancer on the global agenda through awareness, media engagement, and advocacy strategies.

8. Advocacy in Africa: saving lives through information, NGO development, and cancer control

Loyce Pace, Ann McMikel, Johanna Ralston, Otis Brawley

Despite the growing cancer burden in Africa, cancer is often absent from the region's health agenda and is largely considered a hidden threat. The threat is expect-

ed to increase in African countries as people in this region live longer, continue to face infectious diseases, and increasingly adopt Western lifestyles. In 2002, there were 583,000 new cancer cases in sub-Saharan Africa, according to WHO estimates¹². When cancer is detected, it is often too late for effective treatment, resulting in about 480,000 cancer deaths annually¹². However, more than one-third of cancer deaths in Africa are due to cancers that are preventable and treatable if detected early.

With this as background, Africa can avoid this looming pandemic by mobilizing increased leadership and advocacy around prioritization, funding, and action. The American Cancer Society has partnered with stakeholders in the public, private, and NGO sectors in sub-Saharan Africa to identify the limitations of cancer and tobacco control advocacy in the region and develop fundamental principles among those that promote an evidence-based agenda¹³. The Society's Africa Cancer Information and Advocacy Initiative is a major vehicle to convene stakeholders for regionally-focused curricula and award proposals for pilot interventions or campaigns. In addition, American Cancer Society and Cancer Research UK are co-funding an Africa Tobacco Control Regional Initiative, launched to facilitate regional research, advocacy, and collaboration.

The Society's efforts in Africa have engaged cancer and tobacco control advocates from 24 countries and supported 100 grant-funded projects. Results include increased media coverage on cancer or tobacco issues and the establishment or enhancement of relevant legislation, screening or support programs, and peer networks¹⁴.

9. Strategies for capacity building of cancer non-profits

Cristina Parsons Perez

A strong civil society with professional and effective patient organizations has been a critical factor in cancer control. One area of particular need is capacity building of cancer non-profit organizations, especially as the level of economic development lessens.

In 2007, the American Cancer Society (ACS) launched the Latin America Regional Health Grants Program to strengthen patient organizations and foster the growth of the cancer movement in the region. The Program recruited the 14 leading cancer NGOs of the region and has 4 key strategies: programmatic strengthening; organizational strengthening; networking; and cancer agenda building.

In terms of programmatic strengthening, in order to strengthen patient organization skills to drive cancer downstaging in the region, each NGO is conducting a cancer early detection project with financial and technical on-the-ground support. Regarding organizational strengthening, based on an individual organizational

assessment, each NGO has received a detailed capacity building plan with financial support for implementation (for example: strategic planning; staffing support; M&E, etc). The group results of the organizational assessments are also addressed in four Program trainings. The assessment of each individual NGO will be repeated at the end of the Program for evaluation purposes. For networking, a regional online network was created to stimulate the creation of working relationships and exchange of best practices among Program NGOs¹⁵. Finally, in terms of cancer agenda building, NGOs are supported in working with media, both individually and through regional initiatives. The strengthening of regional patient organizations with this Program will provide a strong network of effective and professional stakeholders capable of delivering high quality Programs to impact the local cancer burden. A strong evaluation component assures that this Program can serve as a pilot and an example to further the field of cancer capacity building.

10. Peruvian Cancer Patient Coalition and the National Patient Network: the role of civil society and patient engagement in cancer control

Eva Maria Ruiz de Castilla, Cynthia Krose

The building of active Patient Networks can be stimulated by specialized capacity building and can significantly contribute to the development of cancer control activities. In Peru, the Peruvian Cancer Patient Coalition and the National Patient Network have worked on the role of civil society and patient engagement in cancer control. These groups have worked on patient empowerment and leadership in cancer advocacy, building patient networks, and the development of cancer control initiatives and policies to improve the access and quality of cancer care.

The Patient University stimulates patient participation through specialized training and workshops covering the following areas: information on cancer, self esteem, leadership, organizational planning, advocacy, communication and networking¹⁶. At the same time, capacity building training and workshops are organized for the members of the Patient Coalition and Network on the rights, responsibilities and security of the patients and conflict resolution.

One thousand patients per year and ten patient organizations have been involved since 2005, permitting the creation of the Peruvian Cancer Patient Coalition, striving actively to protect the rights of cancer patients and promote the development of policies to improve access and quality of cancer care. The Peruvian Cancer Patient Coalition was accepted as an observing member of the Multi Sector Coalition Against Cancer and is promoting the dialogue and collaboration between policy

makers, health professionals, health care institutions, and patients to develop mutually agreed plans and watch over their implementation.

The Peruvian Cancer Patient Coalition actively participated in the creation of the National Patients Network inaugurated in March 2008, which brought together patient organizations representing different types of chronic diseases. The goal of the Network is to highlight problematic areas in healthcare and develop mutually agreed solutions to these problems in order to improve the delivery of safe, high quality health care, and generate policies that protect the safety and rights of all patients in Peru.

11. Cancer screening in Slovenia

Maja Primic-Žakelj, Ana Pogačnik, Marjetka Uršič-Vrščaj, Mateja Krajc, Hotimir Lešničar

Cancer screening, delivered as a program, is a public health intervention that requires screening policy documented in a law or other official regulation. A multidisciplinary team should be responsible for implementing the policy, supervising and monitoring all steps, as well as for developing guidelines defining standard procedures. In addition, a quality assurance structure, a cancer registry for ascertaining the burden of disease and sustainable funding are required.

In Slovenia, the first organized cancer screening program was for cervical cancer, implemented nationally in 2003. It took several years to develop its legal basis that is currently included in several regulations: the Screening Registry, which is linked to the Population Registry and the Cancer Registry, with its database on all smear and histology reports was included in the Act on Databases in Health Care in 2000¹⁷. The special regulation with standards for cytopathology laboratories was published by the Ministry of Health^{18,19}, and all laboratories were reviewed in 2003 to evaluate whether they complied with these standards. The screening policy was defined with the ministry's recommendation on preventive examinations in primary reproductive health care²⁰. National guidelines for all procedures involved in cervical cancer screening and treatment of screen-detected lesions were published in 2003 and are regularly updated^{21,22}. A national coordination office was established at the Institute of Oncology Ljubljana along with the Screening Registry. The National Board supervises the results of the program. Organized breast and colorectal cancer screening programs are currently under development.

In conclusion, it took several years from planning the population based cervical screening program and establishing its legal basis to its implementation in Slovenia. Along the way we had many obstacles at all levels, but current results show that we have been successful²³. We hope that the experiences from this program will

make the national implementation of breast and colorectal cancer screening programs much easier.

12. A novel approach to community based cancer prevention

Sonia Lamont

The British Columbia Cancer Agency's Prevention Programs (BCCA PP) takes a grassroots approach to educating the public about cancer prevention. It focuses on sustained programs to educate about the five main risk factors critical to cancer prevention (tobacco use, body weight, food choices, activity level, and excessive sun exposure). The bulk of these risk factors also significantly impact other chronic diseases, such as diabetes and heart disease.

BCCA PP uses a collaborative and broad cross-sectoral approach to implementing its population-based programs. Examples of this are PP partnering with the British Columbia Cancer Foundation, Aboriginal Act-Now, Healthy Heart Society, and/or provincial Health Authorities. PP's Cancer Prevention Coordinators (CPCs) are based throughout the province and have their fingers on the pulse of their respective communities. This enables them to remain flexible to the needs of their communities while still implementing PP's mandate, which is important as PP expands into northern BC. CPCs promote and educate to all ages and within diverse populations located in urban, rural, or remote environments. Community engagement and capacity building are important activities that CPCs are also involved in.

Though not without obstacles, such as securing long-term financing, a virtual team spanning vast geographical distances and finding skilled staff in spite of Canada's healthcare human resources crisis, PP's combination of focusing on programs and not projects, a grassroots community approach, collaborative efforts, the nurturing and education of its team, and solid management enables it to continue providing evidence-based information in an established, maintained and sustainable manner. Furthermore, integral to all of this is the fact that the BCCA identifies prevention as being part of its continuum of cancer care.

13. Tobacco control: a Non-Governmental Organization endeavor

Khushnud A Dhanbhoora

Based on cancer registry data, India is expected to have about 800,000 new cancer cases every year²⁴. Non communicable lifestyle-related diseases pose a major health risk and contribute to the burden on human and economic infrastructure. For these reasons, it is imperative that governmental and non-governmental organi-

zations (NGOs) promote cancer control programs.

One of the principal objectives of Prashanti Cancer Care Mission, an NGO, is to work towards cancer prevention in our community. Within the last year, psychologists at this NGO have established and conducted 23 educational and screening camps related to tobacco control and wellness in urban and rural communities. These camps were aimed at primary prevention and early detection.

The program has involved diverse sections of the population in the educational process, by including urban, rural, and semi-urban communities. The programs have been promoted through word of mouth and organized efforts at marketing and outreach. Outreach has been conducted through various mediums: poster competitions, street plays, lectures and discussions, screening camps, public events, and mass media. The leaders of the program believe in empowering the public with informed choices.

As a small non-profit NGO, the program also faces several challenges in terms of combating socio-cultural beliefs and stigmas and lack of adequate finances and man-power. In India, sometimes, there is a need to settle for small successes, and the program realizes that reaching out to even a small segment of the population makes a significant difference. This presentation will address the factors that continue to challenge us in our endeavor, as well as detail ways in which we attempt to overcome these challenges.

14. Conclusions

In both resource-rich and resource-challenged countries, many constituencies have developed programs which can contribute to comprehensive cancer control. Some take advantage of newer technology and information services, while others are more people and patient focused.

Based upon these experiences, several critical issues and factors for establishing, maintaining, and sustaining population-based comprehensive cancer control programs were identified:

1. Most resource-challenged countries have fragile health care systems which are underfunded and thus unable to address NCDs, including cancer, adequately.
2. Notwithstanding commitment at government level, efforts to fight cancer and NCDs are often dispersed and not coordinated.
3. There is a shortage of health professionals and trained personnel (especially oncologists and nurses) which often degrades the NCCP's maintenance and undermines its sustainability.
4. Sustainability is also affected adversely due to deficiencies in government or national administrative, financial and technical capacity to manage the pro-

gram. Lack of an effective social health insurance system makes access to cancer services prohibitive and thus the desired NCCP outcomes, in terms of early detection and survival, are not achieved.

5. Partnerships around cancer control which are essential for success are often missing. No single organization in a country can develop and manage the NCCP alone. Building effective cancer control programs requires public-private partnerships, as demonstrated by other successful initiatives for communicable diseases. Such partnerships must work together to assess needs, help develop relevant national programs for cancer prevention and control, share successful strategies and interventions, increase synergies among the various cancer control components to develop realistic proposals in each area, and raise the necessary funding to implement plans in all regions of the country.
6. Cancer and NCDs are still a low priority for donors, resulting in lack of available funding for cancer, which is a great barrier to NCCP development.

There is not a single strategy that works best for achieving comprehensive cancer control in all settings, but promising examples exist in both resource-rich and resource-challenged countries. Governments trying to achieve a comprehensive program should focus on integrating these efforts, allowing allied programs to maintain their unique focus within the broader cancer control context. Non-communicable disease strategies or tobacco control programs should also be looked at for coordination and collaboration.

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References

1. WHO: Cancer Control: Knowledge into Action. WHO Guide for Effective Programmes. WHO, Geneva, 2006. Available at <http://www.who.int/cancer/modules/en/index.html> (accessed 12 August 2009).
2. UICC: National Cancer Control Planning Resources for Non-Governmental Organizations. UICC, Geneva, 2006. Available at <http://www.uicc.org/templates/uicc/pdf/nccp/nccp.pdf> (accessed 12 August 2009).
3. US Centers for Disease Control and Prevention (CDC): Guidance for Comprehensive Control Planning. CDC, Atlanta, 2002.
4. NNHes: Nutrition and health status of Filipino adults – the National Nutrition and Health Survey, 2003-2004. The Republic of the Philippines, Department of Health.
5. Salminen E, Izewska J, Andreo P: IAEA's role in the global management of cancer-focus on upgrading radiotherapy services. *Acta Oncologica*, 44: 816-824, 2005. Available at http://cancer.iaea.org/documents/Ref2-IAEA_Role_in_Cancer_Management_2006.pdf (accessed 12 August 2009).
6. IAEA: Setting up a Radiotherapy Programme. IAEA, Vienna, 2008. Available at http://cancer.iaea.org/documents/Ref5-TecDoc_1040_Design_RT_proj.pdf (accessed 12 August 2009).
7. IAEA: Programme of Action for Cancer Therapy. Available at <http://cancer.iaea.org> (accessed 12 August 2009).
8. WHO: The World Health Report 2006 – Working together for health. WHO, Geneva, 2006. Available at <http://www.who.int/whr/2006/en/index.html> (accessed 12 August 2009).
9. WHO: The global burden of disease: 2004 update. Available at http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html (accessed 25 August 2009).
10. Sridhar D, Batniji R: Misfinancing Global Health: a case for transparency in disbursements and decision making. *Lancet*, 372: 1185-1191, 2008.
11. World Economic Forum: World Economic Forum on Africa. Available at <http://www2.weforum.org/en/events/World-EconomicForumonAfrica2009/Programme/indexd-861.htm?id=28898> (accessed 25 August 2009).

12. WHO: Cancer page. Available at <http://www.who.int/topics/cancer/en/> (accessed 12 August 2009).
13. American Cancer Society. Available at www.cancer.org (accessed 12 August 2009).
14. American Cancer Society: The Global Fight Against Cancer. Available at <http://cancer.blogs.com/international/africa/> (accessed 12 August 2009).
15. Red Cancer. Available at www.redcancer.org (accessed 12 August 2009).
16. The Patient University: Patient Groups and Social Networking. Esperantra, Lima, 2007.
17. Republic of Slovenia: Healthcare Databases Act. Official Gazette of RS No. 65/2000, 2000. Available at http://zakonodaja.gov.si/rpsi/r09/predpis_ZAKO1419.html (accessed 15 June 2009).
18. Republic of Slovenia: Regulation on conditions that have to be fulfilled by laboratories who read cervical smears. Official Gazette of RS No. 68/01, 2001. Available at <http://www.uradni-list.si/1/objava.jsp?urlid=200168&stevilka=3652> (accessed 15 June 2009).
19. Republic of Slovenia: Regulation on conditions that have to be fulfilled by laboratories who read cervical smears. Official Gazette of RS No. 128/2004, 2004. Available at <http://www.uradni-list.si/1/content?id=52261> (accessed 15 June 2009).
20. Republic of Slovenia: Instructions for preventive health care in primary reproductive health care. Official Gazette of RS No. 33/2002, 2002. Available at <http://www.uradni-list.si/1/objava.jsp?urlid=200233&stevilka=1391> (accessed 15 June 2009).
21. Uršič-Vrščaj M, Rakar S, Kovačič J, Kralj B, Možina A: Guidelines for detection, diagnosis, treatment and follow-up of patients with precancerous lesions of uterine cervix. Medical Chamber of Slovenia, Ljubljana, pp 1–16, 2000.
22. Uršič-Vrščaj M, Rakar S, Možina A, Kobal B, Takač I, Deisinger D: Guidelines for management of women with abnormal cervical smear. Society for gynaecologic oncology, colposcopy and cervical pathology, Ljubljana, 2006. Available at <http://zora.onko-i.si/data/C1%20-%20Smernice%20za%20celostno%20obravnavo.pdf> (accessed 15 June 2009).
23. Primic-Žakelj M, Ivanuš U, Pogačnik A, Uršič-Vrščaj M: Poročilo o rezultatih državnega programa ZORA v letih 2007-2008 (Report on the results of the programme ZORA in the years 2007-2008). Institute of Oncology Ljubljana, Epidemiology and Cancer Registry-Programme ZORA, Ljubljana, 2009. Available at <http://zora.onko-i.si/data/lp0708.pdf> (accessed 15 June 2009).
24. Dinshaw KA, Shastri SS, Patil SS: Cancer control programme in India: Challenges for the new millenium. Health Administrator, XVII: 10-13, 2005.