

BUILDING CAPACITY FOR CANCER CONTROL IN THE LESSER-RESOURCED WORLD – FACTORS INFLUENCING SUCCESS, VALUE AND SATISFACTION



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Building capacity for improved health care and cancer control in lesser-resourced countries is necessary and urgent. While acknowledging that vital contributions can be made in disaster relief, opportunities for cooperation and collaboration to build system capacity in settings of chronic insufficiencies are highlighted.

The value of the experience depends upon alignment of personal goals and expectations; the context in which services are provided e.g. independently, or part of an inter-disciplinary group, "ad hoc" or continuing, strategic activity; directed to personal goals or to "partner" needs and priorities; and relationships based on the visit or on a continuing collaboration directed to mutually-determined goals.

The global population which reached 7 billion in late 2011 will increase to 9.1 billion by 2050. Eighty per cent of the world's population already lives in lesser-developed regions, a figure that is expected to reach 87% by 2050. The overall (population-weighted mean/median) world life expectancy at birth is around 68 years, and will exceed 76 years in 2050. These world life expectancies reflect life expectancies that exceed 80 years in the most highly developed countries (e.g., Japan, Australia and Canada) but are less than 45 years in the least developed countries such as Afghanistan and Zimbabwe.

More than 60% of all deaths worldwide across all age groups are attributable to noncommunicable diseases, including cancer. Cancer accounted for 13% of all deaths in 2005. The number of new cancer cases will grow, with > 60% living in low-income countries (LIC), low-middle income countries (LMIC), and upper-middle income countries (UMIC) nations.

In 2009, the estimated cost of new cancer cases was US\$647 million in LIC, US\$8.21 billion in LMIC, US\$8.95 billion in UMIC, and US\$268 billion (94% of global cancer

costs) in high-income countries (HIC). Although only 0.3% of cancer care outlays occur in Africa and 15.4% in Asia, the cancer care burden over the next decade will rise most in Africa, Asia and the Americas, and will decline in Europe and Oceania¹.

Much of what is necessary to achieve improvements in health care service delivery and cancer control is known. What is missing is the capacity – mainly trained professionals but also systems, structures, technology and financing to implement that "know how" – all in limited supply in the poorer nations of world.

Thus, the burden is going to increase most where the resources and capabilities are least. The needs are clearly evident and the support urgently necessary. The challenge is "how, who, when, how much and for how long" to build self-sufficient and sustainable approaches to population health and control of diseases, including cancer.

The impetus for this article was the observation by one of the authors (SBS) that many health professionals have a desire to contribute their knowledge and skills to help those in need in lesser-resourced countries, but are not necessarily aware of

the range of opportunities available, including opportunities that can make a sustained rather than transitory impact on health and health care services delivery in lesser-resourced settings.

Crisis/disaster relief and health capacity-building in the lesser-resourced countries

Challenges to population health can be broadly separated into two types: chronic insufficiencies and acute crises.

- Chronic insufficiencies are longstanding limitations in the ability to respond to health care needs due to an insufficiency of skilled personnel or resources for what are considered achievable levels of care. This is manifested by a lack of access to care or queues or waiting lists for procedures. Such chronic insufficiencies can be general, across health states and diseases or specific, with reference to certain illnesses, services or technologies.
- Acute crises or disasters suddenly or precipitously overburden the health systems' ability to respond, typically by damaging or destroying infrastructure. Such events include natural disasters (tornados, hurricanes and cyclones, droughts and flooding; earthquakes and tsunamis; fires); conflicts and wars, and epidemics and famine, some consequent upon droughts or flooding, some arising from conflicts and wars.

Acute crises and disasters in lesser-resourced countries typically occur in settings of chronic insufficiency.

The type and intensity of assistance required, the type of professionals needed, and the resources and financing available differ for acute crises and chronic insufficiencies/deficiencies. It follows that the types of volunteer services needed and the opportunities for contributing one's time, knowledge and skills vary significantly.

Disaster relief is focused on addressing and overcoming a transient crisis and restoring the state of "normalcy" better than or as it existed before the crisis. This is usually a time-limited response for provision of urgently needed services, although the need to rebuild damaged infrastructure and

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disease arising as a consequence of the disaster can prolong the crisis.

System capacity-building in the setting of chronic insufficiency, in contrast, aspires to achieve a level of function or service delivery that exceeds the pre-existing state, by transferring skills and expertise to the local communities and professionals. It is usually part of a longer term effort directed to sustainable improvements in general, or specific health practice, that over time become self-sufficient/reliant on local or national resources and personnel.

The purpose of this article – in an annual cancer publication – is to highlight opportunities for health personnel – be they clinicians experienced in diagnostic or therapeutic oncology or health administrators or scientists involved in cancer prevention and control or cancer research – with knowledge and skills to make lasting improvements in lesser-resourced countries.

In focusing on the chronic insufficiencies we make no judgments about the relative value of those who devote time and energy to acute crises. Rather, we focus on the contributions those professionals with cancer expertise can make addressing chronic insufficiencies in lesser-resourced countries facing growing cancer burdens over the coming decades.

The resource intensiveness and multidisciplinary nature of cancer diagnosis and treatment, and the complexity of population-based cancer prevention and control suggest that individuals interested in devoting their time and energy to address chronic insufficiencies in these areas should consider: 1) how their personal motivations and desires relate to the range of institutional contexts and agendas, and 2) the nature of different collaborative relationships as a spectrum or continuum which either reflects or will determine the depth of engagement. Understanding both of these as one begins to explore opportunities for collaboration is likely to impact on the likelihood of mutual satisfaction and success.

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Aligning personal motivations and goals to institutional contexts needs and priorities

Those interested in contributing their knowledge and skills to

promote nontransitory improvements in cancer care or cancer prevention and control in lesser-resourced countries, whether as volunteers or on a remunerated basis, will in almost all cases need to find institutional contexts in which to conduct their work. Health professionals who normally provide direct care to patients may find that outside the context of disaster relief, local authorities may require licensure or special authorization to deliver care. Thus clinicians may be limited to teaching and demonstrations. Health administrators, epidemiologists, health economists, and those skilled in health technology assessment may find fewer bureaucratic and regulatory challenges to their collaboration. Non-health professionals who work in health organizations, such as information and communications technology specialists and database and software programmers may find their talents are enormously helpful.

Anyone contemplating working in a lesser-resourced setting should explore the opportunities and consider how their personal motivations and goals relate to the receiving institution's context, needs and priorities.

While there are innumerable permutations underlying motivation, choice of activity, location, collaborator(s) and anticipated benefits, two principal types of engagement can be considered:

Motivations

From the standpoint of the individual dedicating time to work in a lesser-resourced setting, motivations can include the desire to help others, to travel, to fulfil a desire to be exposed to and learn about a different culture, different diseases or disease presentations, other health systems and models of care. Some may view the visit as an opportunity to train – or learn from – one or more colleagues in other countries.

Time frame

For those still working, the time frame available may be a short period that corresponds to vacation time, summer breaks, an interval between jobs; or may be a longer period corresponding to a six-month or year-long sabbatical, or a period of unpaid leave. Such visits may be viewed as single visits, without any preconceived plan for continuity. Those who are retired often have considerably greater flexibility in determining the duration of their engagement.

To contribute to lasting change, ongoing periodic visits and regular contact will generally be necessary.

Most of this contact can be through e-mail, voice and image transmission over the internet (free or low cost services like Skype as long as the partners in the lower-resourced country have the necessary internet bandwidth), and occasionally

more structured but still low-cost distance learning (e.g. webinars using commercial services like Webex). Regular visits – at least once a year – are usually important to sustain engagement and prevent inertia.

Activities

The range of activities can be quite varied. One can go as an observer to acquaint oneself with the circumstances and reality of a lesser-resourced setting, or to impart knowledge and skills to trainees or colleagues, or personally deliver a service that fills a need or void.

One can also go as part of a broader, team-driven, strategic encounter to exchange, provide training or practical support to achieve greater capacity for improved, sustainable care.

Non-clinicians such as hardware and software information and communications technology experts and technicians (including systems analysts, database managers, programmers, web-designers), health administrators (including those versed in strategic planning, policy-making, and programme implementation and evaluation), and accountants can make enormous contributions in lesser-resourced countries working collaboratively or by mentoring local counterparts.

Institutional contexts

Working through institutions in one's home country or in the lesser-resourced setting generally enhances the opportunities for a more sustainable impact.

Institutions can be universities (including their schools of medicine, dentistry, nursing, public health, public or business administration), hospitals (especially teaching hospitals, departments and their outpatient components), philanthropic entities, professional societies, governments (at the federal, provincial, or local level) directly or through quasi-public but independent entities that they fund, nongovernmental organizations (e.g. World Child Cancer), and multinational organizations (e.g. agencies of the United Nations including the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), and International Atomic Energy Agency (IAEA) or affiliated global outreach networks such as the International Network for Cancer Treatment and Research (INCTR)).

Institutions often have partnership agreements or memoranda of understanding (MOU) which facilitate the insertion of individuals or groups into existing initiatives or the start-up of new initiatives. Such agreements provide a legal or regulatory context and usually imply some degree of infrastructure and administrative support. Such agreements often define the terms of the logistics described below.

Examples of this type of arrangement are institution-to-institution ("twinning" agreements), professional society-to-society e.g. gynecologic oncology societies, government-to-government or through international health/cancer control organizations e.g. WHO, UICC, IARC and IAEA.

Institutions and institutional programmes are more likely to have reporting and programme evaluation expectations, which foster periodic assessment of initiatives and programmes so that an ongoing relationship builds cumulatively to a commonly determined goal.

Logistics

In addition to travel, local transportation and accommodation, there may be issues of personal security and safety and health issues that the individual travelling on their own may underestimate.

Funding

Individuals who engage in this kind of work may be volunteers or compensated or subsidized in some way. Most self-initiated activity is usually self-funded. Universities may offer stipends for students and faculty; similarly medical and other health professions' societies may offer stipends for international research collaboration or training. Typically such resources aim to cover the costs of international travel, ground transportation, and accommodation with a meal allowance.

Government and government agencies often work under legislation or regulatory rules that dictate that certain appropriations can only be channelled to or through other governments or quasi-governmental entities, or conversely may only be channelled to non-profit entities registered in lesser-resourced countries.

Philanthropic organizations are often primarily funding entities that allocate funds to non-profit (charitable) service organizations (many administered by religious entities) and other nongovernmental organizations.

Establishing meaningful collaboration

The concept of collaboration – to work in association with; to work with, to help, etc. – is intuitively accepted, but not necessarily well understood. It encompasses a continuum of engagement from networking (agreement to share information) to coordination (scheduling activities for common gain) to cooperation (to agree to do defined activities within a commonly agreed manner) to true collaboration (working together and sharing resources to achieve commonly defined goals). This continuum requires increasing levels of time commitment, increasing trust between parties, and a willingness to modify personal/institutional priorities in

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support of the attainment of a commonly held vision².

In addition, the pace of change within a collaborative relationship may range from "let it happen" (adaptation in an unpredictable, uncertain, emergent and self-organizing way) through "help it happen" (knowledge transfer and exchange through negotiation, influence and enabling) to "make it happen" (re-engineering of processes based on planned, regulated, programmed and managed managerial mechanisms)³.

The goal of a true collaboration is the achievement of a common vision through a respectful relationship based upon trust and a genuine desire to achieve mutually defined objectives through which both parties gain. Elements promoting true collaboration include:

- A mutually agreed logic model that underlies the vision of the collaboration (the why behind the collaboration); the outcomes of collaboration (the content of what is to be achieved); the process of collaboration (how will the goals be achieved); the roles, responsibilities and accountabilities of the parties in the relationship (who and through what understandings), and the governance or oversight of the collaboration (the source, direction and deployment of resources, as well as the evaluation of performance).
- A mutual appreciation of the utility of evaluation to determine "value", assess achievement of goals, demonstrate outputs and outcomes deriving from the collaboration, and the circumstances underlying sustainable change following implementation.
- An understanding of organizational cultures, leadership and relationships, and the need for structure and infrastructure if cultures are being aligned in the pursuit of a novel endeavour.
- An "approving/permisive/enabling" governance and a willing, enthusiastic, and enabled health professional team composed of the collaborating parties.
- An understanding of the resource commitments required, especially the finances. In principle, to achieve the goals of the collaboration a commitment to secure the necessary resources should be undertaken early on.

- The donor and recipient parties should be explicit about whether the financial resources are "aid" or are to be jointly acquired; whether evolution to self-sufficiency with the required resources provided by the recipient is an expectation; when and under what circumstances this is to be achieved, and how it will be sustained beyond the project.

Factors influencing success, failure, value and satisfaction

Through an approach called SWOT analysis internal and external factors that foster or hamper collaboration and the achievement of goals and satisfaction can be identified as Strengths, Weaknesses, Opportunities and Threats.

Strengths: characteristics of collaborations that enhance the prospect for success:

- trust; mutual respect;
- clearly defined vision; bilaterally accepted and agreed logic model;
- an understanding of true collaboration;
- "top-down" and "bottom-up" support and commitment;
- acceptance of an evaluation framework;
- well-defined, secure budgetary commitments;
- a framework for incorporation into and continuity within the health system;
- an appreciation of self-sufficiency and sustainability post implementation.

Weaknesses (or Limitations): the characteristics of collaborations that diminish the prospect for success:

- a short/limited duration for consistent policy leadership and priority setting;
- dissimilarity of cancer control systems and professional practices between collaborators (e.g. salaried versus fee-for-service compensation);
- absent, ambivalent or insecure leadership in the donor and/or recipient organizations;
- distance and language barriers that hamper communication;
- uncertainty of the budgetary commitments;
- unclear vision, absent or contested logic model to define outcomes;
- absent or ineffectual professional/team activity (quantity, quality, timeliness, enthusiasm);
- "one-off" or ad-hoc activity.

Opportunities: contextual factors that enhance the prospects that collaborations will "add value":

- access to populations with differing social, ethnic and

genetic diversity;

- exposure to differing patterns of disease, care and outcomes, and relationship of resource allocations to outcomes;
- establishment of operational models to address other health and disease states (potential positive "spill-over" effect);
- receptivity for collaborators to conduct research and present and publish findings;
- introduction of alternative care delivery models from differing health contexts;
- involvement of those with relevant non-clinical health professional skills (e.g. health administration, medical ethics, economics , health technology assessment etc.);
- establishment of on-going health professional exchange and training modules;
- structured sabbatical, fellowship and observership opportunities to build capacity and foster continuity;
- promotion of "legacy" fund-raising to support project implementation and capacity building.

Threats: contextual factors that could undermine success or sow frustration and/or dissatisfaction:

- responsibility for population-based outcomes without authority or resources to implement change;
- shifts in political will, priorities, or level of commitment;
- changes in institutional or project leadership due to turnover arising from term of office or political processes;
- loss of focus because of competing or distracting priorities;
- insufficient progress to maintain momentum;
- withdrawal or re-allocation of budgetary resources;
- inadequate attention to security, safety and health.

Discussion

There are both compelling reasons and enormous and highly varied opportunities for health personnel – clinicians and non-clinicians – with knowledge and skills to make lasting improvements in cancer care delivery and cancer prevention and control in lesser-resourced countries.

The resource intensiveness and multidisciplinary nature of cancer diagnosis and treatment, and the complexity of population-based cancer prevention and control usually require multidisciplinary solutions where collaborative relationships constructed and carried out over several years are essential to success and sustained change. Continuity promotes alignment of motivations and focus on the context , needs and priorities underlying a successful collaboration.

With collaborative activity – whether as a volunteer or on a



Satisfaction Value Success	α	Level of collaboration achieved	x	Interpersonal relationships developed	x	Clarity of purpose, content and implementation plans	x	Security of resources to enable achievement of goals
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remunerated basis – willingness, motivation and goodwill are essential. Satisfaction, value and success are proportional to the level of collaboration established, the interpersonal relationships developed, the clarity of purpose, content and implementation of plans and the commitment of resources to enable achievement of goals.

Increasingly, the rewards of a “two-way” exchange between higher- and lesser-resourced partners are being recognized through an appreciation that the lesser-resourced need to build capacity to enhance cancer (NCD) control , whilst the higher-resourced need to develop different approaches e.g. alternate models of care , “task-shifting” care in primary and community (lower acuity settings), rational introduction and use of technology, etc if they are to sustain the capacity and functionality of their existing publicly-funded health care systems.

The more that the enablers of success, value and satisfaction are addressed at the outset of the collaboration, the greater will be the probability of attaining goals, implementing meaningful and sustainable change, and achieving the satisfaction of all parties. •

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Dr Sutcliffe was awarded the Queen Elizabeth 50th Jubilee Gold Medal in 2003, and the Terry Fox Award of the BC Medical Association in 2009 for his lifetime services to cancer control.

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From 1992 to 2001, he was an Assistant and then Associate Professor of Medicine at the UCLA School of Medicine. Since 2001 he has served as an Adjunct Associate Clinical Professor of Medicine. In Brazil, Dr Passman has taught at the School of Medicine of Universidade do Grande Rio and has lectured at six graduate health management and health MBA programmes.

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