14 Planning and Management of Cross-Sectoral Programs: Strategies to Address NCDs

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Introduction

It had been clearly demonstrated that the causal conditions of non-communicable chronic diseases are interdependent: poverty, inequities in opportunities and exposure to risks, access to health services, as well as unbalance in power relations, which not only influence but also enhance the increase of prevalence of these diseases, especially in developing countries (Duncan et al. 1993). Reducing socioeconomic and health inequalities has therefore been on the agenda of policy-makers in a number of countries and international organizations (Vega and Irwin 2004). Nevertheless, the underlying mechanisms that determine health inequalities are not fully understood, which makes it hard for policy-makers to create well-targeted public policy and programs that include intersectoral actions.

There is a robust empirical evidence illustrating the existence of health inequalities and association between socioeconomic position and health inequalities. Roses (2007) and Sundmacher et al. (2011) have indicated that where there exists poverty concentration, with low infrastructure and low cohesion levels, the health worsens, as well as other aspects of the well-being. Likewise, the need to articulate plans of development with plans for improvement of the health conditions has been highlighted; not doing so could result expensive and perpetuate the poverty (World Diabetes Foundation 2010).

Intersectoriality has been defined as a "public health practice with potential to allow local public health units to address the social determinants of health and reduce health inequities" (National Collaborating Centre for Determinants of Health 2012). It refers to actions undertaken by sectors possibly outside the health sector, but not necessarily in collaboration with it. One of the limitations to develop intersectoral actions is the availability and quality of information and evidences, regarding the mechanisms that facilitate the harmonious articulation between sectors, the know-how.

Additionally, the programs are formulated from optics of sectoral planning and implementation, although this type of actions requests an intersectoral management, supported and fortified with systems of information, surveillance, and evaluation, in order to contribute to decision-making processes with the participation of diverse sectors, as response to the targeted situation. In conclusion, the burden, magnitude, and unequal distribution and consequences of non-communicable diseases, NCDs, have been widely documented (OMS 2008; Gobierno de Chile 2011; Ministerio de la Salud de Brasil 2011; De Salazar 2011a); however this is not the case for the processes to build and sustain intersectoral work.

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D.V. McQueen (ed.), *Global Handbook on Noncommunicable Diseases and Health Promotion*, DOI 10.1007/978-1-4614-7594-1_14, © Springer Science+Business Media, LLC 2013

This chapter focuses on issues related to the above limitations, which considers the nature, organizational culture, functioning processes, and resources of associated sectors, to build alliances and intersectoral management that facilitate and strengthen cross-intersectoral interventions.

The Problem

Why Interventions Addressing Non-communicable Chronic Diseases Have Not Produced the Expected Results, Especially in Developing Countries?

A variety of factors can be highlighted as contributors to the above situation. In this chapter we refer to the most common and critical, according to the experience of the author in Latin American countries, as well as global literature review. Below are listed the main findings of the bibliographic search to face NCDs, with the goal of putting the science and the knowledge at the service of the intersectoral program management.

Weak Public Policies and Health Systems to Defend Health Rights and Health Equity

Even though the SDH should be considered in any comprehensive response to face NCDs, given that these (SDH) influence and are influenced by contextual factors within a determined political and social organization, in the practice, this is not the case, and the majority of interventions restrict their focus to preventive measures related with the risk factors of these diseases, without taking into account the context that produces and reproduces the inequitable distribution of these diseases, as well as the consequences. In the few occasions in which the SDHs are taken into account, only specific SDHs are accounted, not a group of them, as it had been recommended (Ward et al. 2011).

With population and territories as subject of change, the response to the NCDs has to have a population reach, in which the individuals are considered within a group, part of a society, and a territory. Some authors (Daniels et al. 2000) have insisted in that the health sector could do a lot to remediate the consequences in health of the social and economic disparities (Casas-Zamora and Gwatkin 2002). In the last three decades as per Mahmoud (Larned 2010), the involved organizations in global health have expanded, but their objectives are narrow and the goals are for short term, focusing in specific diseases and communities, more than in the strengthening of the systems as a whole.

The prior has led to the fragmentation and inequity in the financing of health programs and lack of continuity in the care. Therefore it requires public policies and reforms to the health systems so that they contribute to rectify these limitations, as well as expand their acting on the social determinants of population's health, under health as a right and social justice principles. It is noteworthy that in the published studies by four countries in Latin America, big part of the proposals has focused in the access to the health services, under the component of health service reorientation (Fig. 14.1).

Complexity of NCD Interventions Has Not Been Considered in the Practice

Lack of understanding of the complex and multifactorial nature of NCD interventions is the second problem; as a result of it, the theoretical foundations for the design and planning of interventions are weak. From the focus of the sciences of complexity, these interventions are multifactorial involving the participation of several sectors and levels of action; therefore the answer is also complex as well (Cocho 2005; García-Vigil 2010). It requires structural changes during long periods of time, and innovative management approaches to sustain the process of change.

Complexity has been defined as a scientific theory, which recognizes that some systems show behavioral phenomenon, which cannot be explained through conventional analysis; and therefore, a complex system cannot be reduced to the quantity of components that integrate it, because the specificity of what does make it work as such would be lost (Hawe et al. 2004).

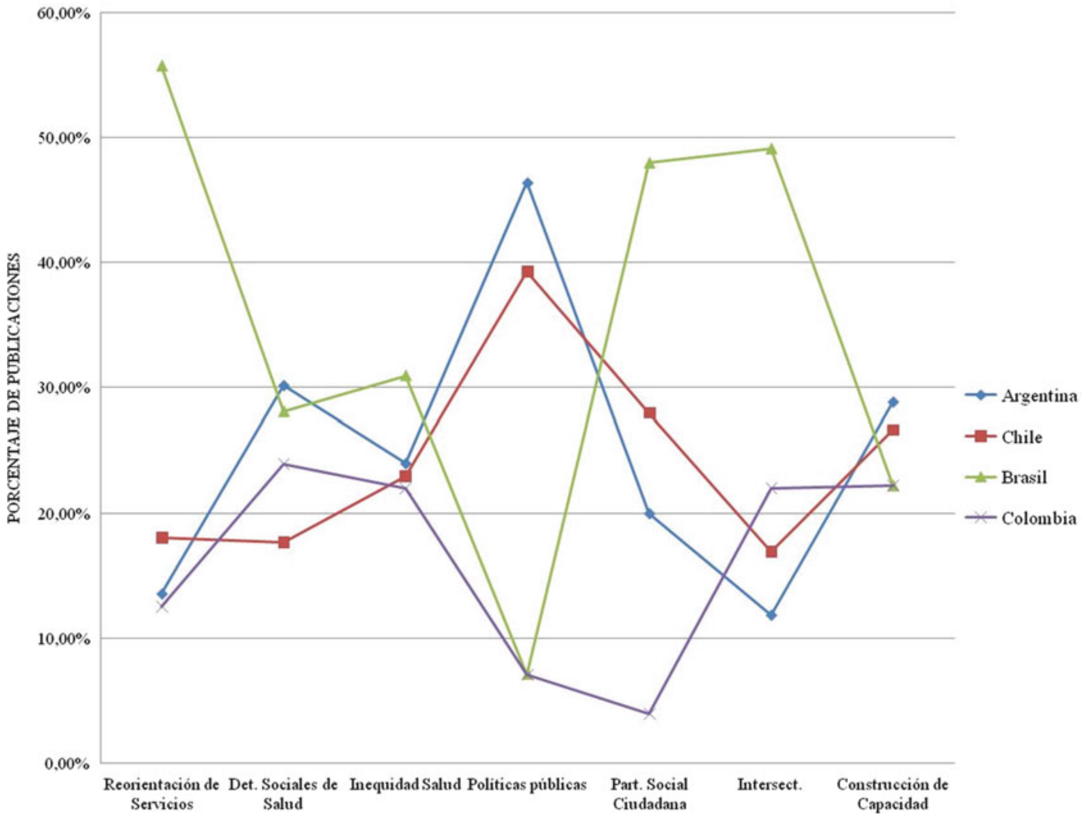

Fig. 14.1 Publications for country and health component 2007–2012 (four countries). *Source*: De Salazar, L. (2012). Abordaje de la equidad en intervenciones en Promoción de la Salud en los países de la UNASUR. Tipo, alcance e impacto de intervenciones sobre los determinantes sociales de la salud y equidad en salud. Cali, Colombia: CEDETES—Ministerio de Salud y Protección Social

In this regard, Craig and colleagues (2008) affirm that although there is no clear limit between the simple and complex interventions, and the number of components and the effects may vary, it is recognized that few interventions can be considered really simple. The complexity has two connotations: the first, referred to a property of the intervention and the second, as a property of the system where the intervention is implemented (Shiell et al. cited by De Salazar 2009); both dimensions have to be subject to investigation and practice.

Complexity theory explains in certain way the emphasis that some authors (McMichael 1999) give to environment as context for human health, materialized in the "ecosystem approaches" to health and sustainability (Parkes et al. 2003), including proposals for a "socio-ecologic systems perspective," as well as the convergence of research, policy, and practice, seeking to relink social and ecological understandings of health (Kay et al. 1999; Forget and Lebel 2001; Waltner-Toews 2004, 2009).

Lack or Insufficient Evidences and Competences to Address Complex Interventions

The ignorance of both the complexity of the NCD problem and the interventions to respond to them and contexts where they are produced is perhaps one of the main causes of the poor reached results. It is therefore necessary to look for strategies that

in a sustained manner will help identify the roots of the problem and the factors that influence the effectiveness of the responses, considering that the success is valued by not only the non-presence of an event of interest but also the preparation and resilience to respond to new ones.

The results of a systematic review, assessing the impact and effectiveness of intersectoral action on the social determinants of health and health equity done by the National Collaborating Centre for Determinants of Health (2012), found that “the studies focused their interventions on populations experiencing social and/or economic disadvantage; few described assessing and comparing the impacts of interventions in marginalized groups with the impacts of such interventions in other groups within the population. The majority of studies did not specifically analyze the health equity implications of the interventions in terms of multiple factors of disadvantage. It is possible that some initiatives would improve the health of marginalized populations without changing the gap between marginalized and privileged groups. While the interventions reviewed here focused on marginalized communities, the majority were downstream and midstream interventions. For example, none of the included studies that focused on racialized communities addressed the issue of institutionalized racism. Previous work has noted the challenge of addressing upstream determinants of health.”

The extension of the research agenda, as well as the strengthening of structures to achieve it, is an imperative. In this regard Krieger et al. (2010) affirm that it is required to identify the political, economic, cultural, and ecologic priorities of the society in its historical context, which requires evidences, knowledge, and action. The articulation of lessons learned from practice, as well as information and surveillance systems to the program management, could contribute to give response to the prior limitations. In order for the impact of the research results to transcend the scientific publishing, the evidences and information have to be communicated to several audiences, taking into account the rationality that underlies the decisions-taking processes.

Lack of Capacity Building Strategies to Face NCDs

An additional drawback is the absent or the weak competencies as well as institutional and human capacities, to respond to the increasing trends of NCDs, and risk factors, addressing equity issues through determinants of health. As pointed by Gortmaker et al. (2011), risk factors such as the obesity epidemic have been escalating for four decades; yet sustained prevention efforts have barely begun. On his behalf Krieger suggests that it is required to clarify the theoretical structure that compromises the analysis, intellectually and epistemologically, on how the societies produce and reproduce the social inequities, the political dominance, the work relations, the ways of life, and the ecological context, and how the societies shape and are shaped by its context. Data from Table 14.1 shows that the capacity building component is one of the less developed, or has not been the priority theme of publication.

Reductionist Approaches and Protocols Fragmented and Disarticulated: Practice Influenced by Threaten and Changing Contexts

Alleyne et al. (2010) make allusion to the global discussions around the action strategies to face the NCDs, where the countries have assumed compromises to put in practice the action plan of the global strategy and adopt coherent approaches with the development of intersectorial policies. This explicitly implies articulating the interventions to give response to the NCDs, within the strategies of poverty reduction and in the relevant social and economic policies.

There is a lack of integrated and proactive approaches across the fields of health promotion, public health, and primary health care, working in the same territory and scenarios; this fact affects the quality of health care, as well as the optimal use of the often limited resources. The integration of actions within *existing systems*, into both health and non-health sectors, can greatly increase the influence and sustainability of policies and programs.

Table 14.1 Publications for country and health component 2007–2012 (four countries)

PAÍS	Variables														Total Dctos. por países	Total % por países
	Reorientación de Servicios		Det. Sociales de Salud		Inequidad Salud		Políticas Públicas		Part. Social Ciudadana		Intersectorialidad		Construcción de Capacidad			
	Cantidad	%	Cantidad	%	Cantidad	%	Cantidad	%	Cantidad	%	Cantidad	%	Cantidad	%		
Argentina	27	13.57	29	30.21	24	24.00	13	46.43	5	20.00	14	11.86	13	28.89	125	20.46
Chile	36	18.09	17	17.71	23	23.00	11	39.29	7	28.00	20	16.95	12	26.67	126	20.62
Brazil	111	55.78	27	28.13	31	31.00	2	7.14	12	48.00	58	49.15	10	22.22	251	41.08
Colombia	25	12.56	23	23.96	22	22.00	2	7.14	1	4.00	26	22.03	10	22.22	109	17.84
Total	199	100.00	96	100.00	100	100.00	28	100.00	25	100.00	118	100.00	45	100.00	611	100.00
% por variable	32.57 %		15.71 %		16.37 %		4.58 %		4.09 %		19.31 %		7.36 %			

Source: De Salazar, L. (2012). Abordaje de la equidad en intervenciones en Promoción de la Salud en los países de la UNASUR. Tipo, alcance e impacto de intervenciones sobre los determinantes sociales de la salud y equidad en salud. Cali, Colombia: CEDETES—Ministerio de Salud y Protección Social

The verticality and sectoral planning and management of programs impose barriers for the implementation of more comprehensive and integrated approaches, and also the neoliberal policies present in most countries, focused on the law market, more than to guarantee the right to health of the population. Furthermore, most efforts are isolated and not institutionalized, because countries often lack relevant policies, legislation, as well as tools to measure the level of vulnerability and health consequences of the negative influence of SDH on health equity.

Alliances to Undertake Intersectoral Actions to Face NCD Epidemic and to Create Healthy Populations and Scenarios

Intersectoral action has been widely recognized as an important and key factor to reduce the inequities in health to improve the health conditions in the population. Despite this recognition, there is limited information and protocols of approach that clarify the interrelations and mechanisms that facilitate the harmonious relations between sectors.

Developing countries work under limited institutional and territorial infrastructures and with poor mechanisms for intersectoral management. Many of the problems to implement effective responses relate to structural and functional incoherence between health systems and the necessary conditions to guarantee the success of intersectoral work. To respond to this situation countries and institutions continue to focus on irrelevant actions such as creating new interventions, changing the name of previous ones, and "strengthening" them by adding new scope of actions; yet, these interventions continue to operate within same rigid structures and vertical logic.

The response as pointed by Alleyne et al. (2010) and Butterfoss and Kegler (2009) WHO, recommend the establishment of alliances between the public and private sector, as well as among countries, in order to work for a common objective, overcoming the organizational limitations. To make them work Butterfoss and Kegler (2009) highlight that for the alliances to work and to be sustainable, its infrastructure has to be monitored and evaluated in addition to functions and processes; the programs designed to reach its mission, goals, and objectives; as well as the changes in the health state, organizations, systems, and participating sectors. The prior information has to be shared to decision makers and policies formulators; and even most importantly, it should be produced with their participation, in order to contribute to increase its use.

Impacts and effectiveness evaluations of health equity alliances and intersectoral action to undertake upstream interventions should include both empirical outcome measures as well as processes. It is important to describe not only outcome trends but also the processes that produce them. Thus, intersectoral management, activities, tools, roles, and responsibilities undertaken should be considered in any evaluation, in order to build evidence on intersectoral action on health equity and the social determinants of health, according to specific context.

Weak or Absent Articulation of Information, Monitoring, and Surveillance Systems, for Knowledge and Evidence Production

Going from Data to Information and Evidences for Planning, Evaluating, and Following Up NCD Interventions

There is not enough relevant and strong evidence on the reach and impact to work intersectorially (Pagliccia et al. 2010), to convince decision takers and policy formulators on the need and importance to invest in initiative of this type (Vega and Irwin 2004). The recent literature points out that many of the main themes of study in relation with NCDs have to do with technical aspects related with data procurement, processing, and analysis of data around the distribution and frequency of NCDs and risk factors in the populations. Therefore, the processes of planning, managing, and use of information, directed to generate actions that can accomplish significant changes, have not received the attention deserved (De Salazar 2007, 2012). Also, few efforts have been done in developing countries to confront the applicability of effectiveness and impact evidences of

intersectorial actions, which are produced in countries with different sociopolitical conditions.

The concept of evidence that has prevailed until now is based on the discipline, unknowing the systematic and contextual character of the social processes of change; these last mentioned are reactive, more than proactive, when it comes to decision making. Hence, we deal with the dilemma of modifying the concept of evidence to make it more coherent with this type of processes of change, or expand the criteria and indicators to value the success and impact of the intervention, using innovative methodological indicators and approaches.

The evidence in this case would be judged by not only changes in the frequency of events of interest but also complying with rules related with the methodological rigor of scientific studies, such as selection bias, blinding, and sample size, among others. Additional criteria should be included, related with the appropriateness of problem definition; quality of intervention design (logic framework); quality of the implementation of intervention—according to context changes and demands, not necessarily to adherence to a defined protocol; as well as logical and robust arguments to attribute observed outcomes to the intervention (time frame to reach the results; trend measures).

The Response

What Strategies and Tools Have Contributed to the Successful Planning and Implementation of Effective Interventions?

Several initiatives worldwide have been recommended to develop comprehensive approaches aimed at the prevention and control of chronic NCDs and their associated risk factors. Although the recommendations have been produced in diverse context, there are some common aspects: integral responses that compromise diverse actors and spheres of action; combination of initiatives at short, mid, and long term; product of sustained efforts on behalf of the promoting agents of these; application of strategies to reduce the vulnerability of specific population groups; protocols that include complementary actions, acting simultaneously in different fronts of the causal chain, in order to accomplish greater impacts at a lesser social and economic cost; construction of local capacity and development of resilience with a preventive and proactive orientation (ISDR 2007, 2008); and systems of information, monitoring, and evaluation, linked to the managing and governance of these initiatives (De Salazar 2007, 2011b).

Developing countries face many limitations to implement the above recommendations, the most frequent obstacles being those related with the design and implementation of NCD surveillance and information systems; the lack of appropriate methodological approaches to evaluate the impact and effectiveness of NCDs of complex interventions; and the existence of political and health systems of which structure and regulation not only hinder but also impede the accomplishment of certain conditions needed to guarantee the success of these interventions, such as the intersectorial work, which requires new approaches for the management and governance of these initiatives.

In order to move forward, it is important to better position issues related to program and policy planning, intersectoral management, and impact evaluation in the public sphere and agenda. We need to bring sustainable processes for the development of skills, organizational structures, social networks, resources, capacity building, and responsibilities to create health and well-being. We should also reflect on how we can better contribute to regional development and focus not solely on what we can do but also on what we are supposed to do.

In this proposal we take into account the accumulated body of knowledge about these topics, as well as the gaps and limitations that until now have favored or impeded the performance of these interventions. Policies, programs, protocols, and technological developments will be analyzed.

To develop and implement a comprehensive and integrated approach to respond to NCD challenges, several recommendations have been

identified: wider scope of interventions—clearly addressing equity and SDH; population approaches, which also include the territory where this population lives as intervention target; sustainable processes aiming to create favorable conditions to produce health and well-being: creation of sustainable healthy settings and territories; health systems focused on health care, not only on health service provision; comprehensive integrated protocols—heath care oriented; monitoring and evaluation research—linked to decision-taking processes and practice; and intersectoral management and governance.

It is required to identify guidelines and mechanisms that support the construction of approach, integrals to the NCDs; for it, it is necessary to articulate and integrate visions, positions, strategies, and resources. Following are some guidelines and strategies to put in practice these recommendations, with the goal to put the science and the knowledge at the service of the intersectorial management of NCD-focused programs.

Population-Based Approaches for Interventions, Which Include the Territory Where People Live

Approaches to NCD prevention and control should be population based and incorporate complementary interventions that apply to the population as a whole and not exclusively to those at risk. Population-based interventions require the coordination of institutions and communities through sustainable and cost-effective intersectoral efforts. This places intersectoral management and governance as a key issue for the success of comprehensive and integrated interventions.

Population-based approaches for reducing health inequities also include the territory where the population or subgroups of this population live. The main reason to include the territory as subject of action is exactly there, as it is where policies, laws, budget, and social and cultural networks take place. On the other hand, it is important to identify needs and demands of specific groups of the population, who have specific characteristics and problems due to the differential effect of SDH on their health and ability to respond to them. Being context specific, while providing common principles and definitions, has been recommended by Health Impact Assessment WHO Center for Health Development (2012).

In countries where the politics, health systems, legislation, and organizational structure are weak or contradictory to the guidelines and actions to reduce the inequities in health acting on the SDH, but at the same time, they have decentralized structures that facilitate the implementation of processes of change, it is the case of the municipalities, where the mechanisms of managing or governance around has to or can be strengthened: intersectoral action, financings, alliances, organizational structure, resources, and construction of capacity to intervene in decisions that affect health and life quality of the populations. In this case the advances and changes have to be visible in a permanent way doing advocacy in higher levels, using massive media and social movements.

The first guideline to give response to the prior recommendation would be to fortify the investigation on the influence to the social determinants of health SDofH on the population's health, and on the impact and effectiveness of interventions. The comparison and differences between the different subgroups of the population in relation with the two prior variables help to improve the impact of interventions. According to evidence all interventions should address essential components to reach an effective response its operation adapts to the characteristic of the specific groups and contexts; in other words, we could standardize the components but not the ways to implement them.

In this sense the NCDs are a mean and a goal to improve population's health, supported in a package of strategies and technologies that contribute to fortify the response of institutions and the society, acting in coordinated and synchronized manner on the main causes of these diseases, represented in structural factors around the equity in health and social determinants, behavior risk factors, and existence of protective environments/territories.

Wider Scope of NCD Interventions, Clearly and Intentionally Addressing Equity and SDH

The demand for more comprehensive and holistic interventions to give effective responses to the NCDs requires an integral vision of the social determination of life, not only of health; this vision has philosophical, political, social, economic, and technical implications. The practice from this perspective is more political and social; the interventions in health have to be articulated to development plans; the reach of the action to prevent and control NCDs transcends actions on the risk factors, to incursion in the creation of healthy environment and territories; the health care becomes a rock of the action, not only the provision of health services.

On another side, the use of evidences for planning and management of health policies and programs should envision health as a political process supported not only in scientific information but also in practical experiences and, even more important, in specific circumstances that combine political as well as technical and social issues.

The above circumstances cannot always be controlled; however, a wider comprehension of the process of decision making will facilitate this objective. On the other hand the processes of change, in order to be sustainable, require a consensus in relation with the fundamental orientation—strategic and axiological frame—based on the legal frame (IUHPE 2011; De Salazar et al. 2011). In relation with this point Lang and Rayner (2012) affirm that "the connection between evidence, policy, and practice, is often hesitant, not helped by the fact that public health can often be a matter of political action—a willingness to risk societal change to create a better fit between human bodies and the conditions in which they live. Modern public health had almost forgotten the primacy of the human–environmental interface; the interface of human and ecosystems health now deserves to be central for policy making."

Action within and between sectors, at the local, regional, provincial, national, and global levels, is needed to influence the social and economic landscape that enables the health and well-being of the population. The prior includes actions at various levels and of different complexity, which are complementary and have to be performed concomitantly through upstream, midstream, and downstream actions. The first as per the National Collaborating Centre for Determinants of Health (2012) are those that "include reform of fundamental social and economic structures and involve mechanisms for the redistribution of wealth, power, opportunities, and decision-making capacities"; midstream on the other hand are those which "seek to reduce risky behaviors or exposures to hazards by influencing health behaviors or psychosocial factors and/or by improving working and living conditions; they generally occur at the community or organizational level; finally, the downstream interventions occur at the micro and/or individual level and mitigate the inequitable impacts of upstream and midstream determinants through efforts to increase equitable access to health care services."

IUHPE (2011) also sent key messages to tackle NCDs, recommending the adoption of a comprehensive health promotion approach and the coordination of actions that impact on the determinants that underpin the NCD epidemic across populations.

It is important to take into account these differences of complexity for the design of interventions, as it was stated by the National Collaborating Centre for Determinants of Health (2012). The difference of complexity influences the decisions, governance, managing, and financing of NCD programs, responding to a different rationality and ways to operate these concepts. Therefore, contributor factors such as participation mechanisms, alliances, type of evidences and information to stakeholders, and advocacy, among others, need appropriate methodological approaches and context-specific tools.

According to Lang and Rayner (2012) point of view, a complex ecological thinking is required, considering ecological public health as a field of action and a process for continuing knowledge building, "which it articulates modern thinking about complexity and system dynamics, addressing questions of non-linearity, variations in scale, feedback, and other emergent qualities of nature,

biology, and human behavior. This means more than just evidence, and includes the open pursuit of social values, highlighting the role of interest groups, and debate across society not just within restricted scientific circles."

Comprehensive and Integrated Approaches, Health Care Oriented: Health Systems Oriented to Health Care, Not Only to Health Service Provision

To achieve the above recommendations to face NCDs, a change in approaches and structures is needed. We need to move from risk behavior to vulnerable contexts. This implies a deeper understanding of issues related to equity, the differential influence of social determinants of health, and the role of different players to cope with changing environments. Changes in methodological approaches, which contribute to a more effective planning and evaluation process, as well as for producing and using information and knowledge to institutionalize practices; local capacity building; community—civil and social—participation to empower people to participate in decision making, around public policies and resource allocation.

Many initiatives worldwide have attempted to incorporate a comprehensive approach to the prevention and control of chronic NCDs and their associated risk factors (Agency for Healthcare Research and Quality 2003). One of the recommended approaches is the denominated "social quality theory," which refers to the people's capacity to participate in the social and economic life and in the development of their communities, under conditions that fortify its potential and well-being (Beck cited by Ward et al. 2011).

The use of the social quality theory approach, according to Beck 1998, helps in understanding the problems and the planning and implementation to prevent and control these diseases. It encompasses a set of conditional factors: socioeconomic security (linked to social justice), social cohesion (linked to solidarity), social inclusion (linked to equity value), and social empowerment (linked to human dignity). The author calls the attention on the intimate linkages between systems and individuals, and thus provides an understanding of both within the same theoretical framework (Beck cited by Ward et al. 2011).

Another fundamental strategy has been the strengthening and articulation of three essential public health functions: health policies, program planning, and management; intersectoral practice; as well as health impact and effectiveness evaluation. It requires the development of a theoretical and operational framework that will help understand the factors associated with NCD interventions, and to produce relevant information geared towards action, that is, to move from data to information and to public health practice. While the articulation of these public health functions is greatly needed, the advances so far have been little.

Several mechanisms, approaches, and procedures have been suggested, but despite the efforts made, we are very far from the expected target. A clear example is the increasing intention to strengthened information and surveillance systems, in order to produce relevant and valid information about health inequities and the influence of social determinants, using the results of monitoring and evaluation research as inputs.

Monitoring, Surveillance, and Evaluation Research: Linked to Decision-Making Processes and Practice

The contribution of the surveillance and information systems to develop evidences on impact and effectiveness of interventions oriented to the prevention and control of NCDs is unquestionable. We begin by considering that the evidences in public health are something more than data and information; they become a motor and anchorage of sustained processes of development in order to improve the population's health and life quality.

The concepts and criteria to judge impact and effectiveness. The reflection and consensus on concepts and criteria to judge the impact and effectiveness of intersectorial interventions, of which complexity has already been the theme of analysis, have to be done in the context of processes of decision making, central objective of the

knowledge and evidences produced to improve the practice. In this type of interventions we need to take into account that the truth is not absolute or static, but contextual, relative, and dynamic. On the other side, we need to keep in mind that not only the knowledge is produced by the investigators and academics, but also there is a lot to learn from those that constantly are facing unknown realities in the scientific literature.

The criteria to value the impact and effectiveness of interventions to give response to the NCDs have to take into account not only outcome measure, in relation with changes of frequency of the events of interest, but also information about the quality of the design and implementation of the interventions, as well as the processes and mechanisms that make the intervention works (De Salazar 2010; De Salazar and Gómez 2011). Gortmaker et al. (2011) point out other variables of the process of implementation of these interventions such as the articulation of clinical, preventive, and health promotion programs, and surveillance and continuous monitoring and evaluation of progress and effectiveness.

Methodological approaches. The complexity of evaluating the impact of intersectoral actions on the social determinants of health to improve health equity calls for more rigorous approaches to evaluate intersectoral action along a continuum, taking into account intersectoral processes, tools, and strategies used to support such processes, and the implementation and health equity impacts of interventions. Richter (2010) suggests that the investigation in social determinants of health—SDH—requires a change of orientation and adopting stronger explanatory focuses using innovative and useful tools.

The National Collaborating Centre for Determinants of Health (2012) made recommendations to assess the impact of intersectoral actions. One approach to narrowing health inequities considers the gap between those who are worst off in society and those who are best off. Additionally, interventions can focus on reducing social inequities throughout the whole population and creating better opportunities for health across the socioeconomic continuum. For the evaluation the author suggests a comparison of the targeted and reference group, to identify whether any observed improvement affects differently the marginalized and more privileged groups.

The Centre for Health Development, 2012, calls the attention about the type of decision that will be taken with the evaluation results. "If economic interests dominate decision-making, it will be important to consider appropriate robust and validated methods to monetize the costs and benefits of better health outcomes and equity. This is specifically not easy in the case of health determinants and outcomes because of the complex and often distal causal pathways between policies, programs and projects, and health outcomes" (WHO Center for Health Development 2012).

Mixed approaches. Evaluations of the health equity impacts of intersectoral actions include both empirical outcome measures and processes. It is important to describe not only outcomes but also the processes that produce the observed results. Information, knowledge, and evidences from long-term, large, controlled quantitative studies, complemented with well-designed qualitative studies, involving the opinions of stakeholders, to better understand the impact of intersectoral actions, and the influence of contextual factors, are necessary. The mixed approaches have a higher probability to identify significant changes on the events of interest, and also support the identification of valid and relevant association between interventions and outcomes. Richter (2010) suggests, "it is very obvious that the status quo in research on social determinants of health, needs a change to a stronger accentuation of explanatory approaches."

Given that the relationships between sectors and how these relationships contributed to outcomes are often not clearly understood and therefore not reported, it is difficult to attribute the changes to the interventions. Successes and failures of the programs and policies may have been the result not necessarily of the intervention, but of other contextual factors. The published studies generally provided few details about the process, context, successes, and challenges of the intersectoral interventions and how these were related to the observed outcomes.

One of the promising methodologies for advocacy and involvement of stakeholders in the evaluation is the systematization of interventions; it supports the understanding and acting on contradictory processes where different interests and actors often coincide and collide at the same time.

Systematization has been defined as a qualitative methodological approach, which assumes a dialectic conception of the world, reality as a totality, reality as a historical process, and reality in permanent movement, and recognizes that we are part of that reality that we want to know; that we are characters that participate in the construction of the history; and that the theory and the practice, the objective and the subjective, are contradictory poles which coexist in that reality. In the systematization underlies a plural notion of character (Jara cited by Galeano et al. 2012), which therefore recognizes that all the men and women, independently of the social place occupied and of its moment of the vital cycle, are in capacity of generating scientific knowledge (Galeano et al. 2012). This way in the systematization, the epistemological preoccupation is not centered in expressing if an experience is or was effective—if it fulfilled or not with the objectives set—but instead in pointing the reasons that mediated for such experience to occur in a determined manner, to understand and learn from the occurred, and to provide information to those interested in this intervention.

The systematization results are used to make public health advocacy. In this regard, Tim Lang and Geof Rayner (2012) said, "advocacy requires a political savvy not reflected in the mantras of evidence based policy. But if public health is understood more in terms of managerial actions than of visions and movements, the risk is that the possibility of the field being about altering circumstances to enable health fades."

Also this kind of research provides information that supports the capacity building process, as Bunch et al. 2011 said, "it helps to construct a system that involves organizing, ranking and linking a series of facts and elements that are apparently scattered in order to better understand and interpret community and social practices in local contexts." The combination of short-, medium-, and long-term initiatives demands permanent efforts in order to reduce vulnerability and build resilience as a preventive and proactive strategy.

Long-Term Capacity Building Processes: The Contribution of the Healthy Settings Strategy

The mandatory question is the following: Should we wait for there to be a structural change to be able to act, or should we initiate a process of change of which the goal would exactly be to promote operative policies and structures that make possible the practice of the right to health and the equity in services and opportunities for the population? In our opinion the second alternative is not only more logic but also more ethical. However, this alternative sets as requirement a change of direction, where the purpose in this case is to not only resolve a problem or a health condition but also use this situation to promote and invigorate processes of change that permeate the policy and structures as well as the systems and institutions responsible to sustain them.

In that sense intersectoral action can be thought of as both a strategy and a process to promote shared goals in a range of areas, including policy, research, management, governance, funding, and practice. In this way knowledge is created from practice focusing in the process for social change, not only on final outcomes. Action within and between sectors, at the local, regional, provincial, national, and global levels, is needed to influence the social and economic landscape that enables the health and well-being of the population (National Collaborating Centre for Determinants of Health 2012).

The approach of the inequities in health demands long-term actions, which implies a planning, organization, financing, and, above all, a long-range process of construction of capacity, especially when the political and social systems are adverse to this new political and social perspective in public health. Strategies are created not only to give response to a determined problem but also to be prepared to face new challenges. New sociopolitical situations create new threatening situations and therefore the abilities and capacities of the individuals have to be fortified,

as well as of the groups and institutions, using sustained processes of change. In this proposal the problem or the situation to change becomes objective or strategy to invigorate and articulate efforts of the sectors and actors of the development, to build and maintain the health of the collective. Usually we plan and evaluate according to the solution of a determined problem, but we do not do the same with the process and even less the long-range ones.

Planning and Management of Intersectoral Programs to Prevent and Reduce Health Inequities and NCDs

Different strategies and actions for planning and management of intersectoral programs to prevent and reduce health inequities and NCDs are proposed here considering the strengths and limitations of most of the developing countries. First we start with a health concept which is envisioned as a product of a sociopolitical process aimed to address the determinants of health; second, tools, mechanisms, and strategies to build and sustain this process are subject of analysis: *NCDs as Entry Points to develop resilience and local development; alliances, context-specific, and process-oriented approaches; impact and effectiveness evaluation of NCD interventions; and the contribution of NCD surveillance and information systems. In this last point it is considered that the evidences in public health are something more than data and information; they become motor and anchorage of sustained processes of development to improve the health and quality of life of populations.*

Intersectorial management has attracted a lot of attention in recent years. Much has been said about the need to act and to work intersectorially; yet little has been done on understanding how to do it. In order to be successful, intersectoral management requires an adjustment of systems, structures, organizations, and technology at various levels and contexts. Intersectoral programs in the context of societal normative factors which determine the social structures, policies, and relationships within a society is not a simple issue: social justice, solidarity, equal values, and human dignity are involved.

Before we undertake intersectoral work we must think about the implications of the collaborative or the articulated work. Stokes and Brower (2005) point that this implies answering ourselves questions about the origins of the respective sectors and the tensions between them that define their distinctiveness. According to this author, intersectoral and intergovernmental management has become more explicit as our knowledge of networks and governance increases.

The problem of the information availability was also highlighted by Stokes and Brower (2005), when affirming that there are challenges to make available the information for those that need it, which is an easier task when the actors are no part of the table of negotiation, or the nets, or even more, when they ignore what is going in the partners net. An additional concern is the relation between the governability of the state and the potential unbalance of the power relations between the partners; therefore the access to information has to do with both the management and accountability of not only decision makers but citizens also.

Approaches to governance and management that are more appropriate to complex situations and interventions must be explored. Lebel et al. (2006) have demonstrated that "governance for resilience in regional social–ecological systems is effective if: it is participatory (building trust, shared understanding, and promoting engagement by stakeholders); involves polycentric and multilayered institutions (that allow adaptive responses at appropriate scales); and in which accountable authorities focus attention on equity and adaptive capacity of vulnerable groups and society."

In this proposal we take into account the accumulated body of knowledge on the subject, as well as the gaps and limitations that have, until now, favored or impeded the performance of these interventions. This is how the policies, programs, approach protocols, and technological developments will be target of intervention. Also the appropriateness of tools to measure the level of vulnerability and health consequences in specific groups of the population, as the negative influence of the social determinants and inequities in health.

Health as a Product of a Sociopolitical Process Aimed to Address the Determinants of Health

The perspective of health as the product of a capacity building process has not received the attention it deserves, despite its contribution to creating knowledge and competences and capacity to cope with complex and adaptive systems (De Salazar 2011c). The process itself could act as a strategy and a powerful tool to bridge not only capacity building and resilience but also health and sustainable development. In this sense Waltner-Toews and Wall (1997) point the necessity that the individuals, communities, and ecosystems—territories—should be part. The scope and role played by the different systems and actors are not static, and, on the contrary, are dynamic and adaptive to the context; thus, it needs to be adjusted continuously to the new demands and challenges; so independent of external influences, the process continues its progress to produce the expected results. This adaptation is what some authors will denominate "social resilience" (Kay et al. 1999; Regier and Kay 2002; Sendzimir et al. 2004), relating resilience and complexity within the focus of ecohealth–ecosystems. Lang and Rayner 2012, referring to this aspect, state, "the connection between evidence, policy, and practice is often hesitant, not helped by the fact that public health can often be a matter of political action—a willingness to risk societal change to create a better fit between human bodies and the conditions in which they live."

To build and sustain this process of capacity and resilience construction, the application of strategies, mechanisms, and technical tools is required, which will be treated below.

Tools, Mechanisms, and Strategies for Initiation and Implementation

This section presents strategies and tools to create, implement, and sustain intersectoral initiatives aimed at the prevention and control of NCDs. It considers the nature, organizational culture, functioning, and resources of populations and territories to construct alliances that allow and facilitate the putting into practice the intersectoral actions.

NCDs as Entry Points to Develop Resilience and Local Development

The perspective of capacity building and resilience as critical aspects of processes of change is a strategy to deal with complex adaptive systems. The process itself could act as a bridge between health and sustainable development.

The creation and improvement of intersectoral management tools require a better understanding of what are the most appropriate and effective entry points for strategies to act as catalyst of changes: alliances, adoption of innovative information, monitoring and surveillance systems linked to the management of these initiatives, as well as the development of innovative indicators of success and relevant evaluation approaches that account for the complexity nature of most of the NCD interventions are needed.

NCDs could convert themselves as entry points to generate new organizational ways of planning, of relations and empowerment of resources and efforts around policies and programs to build and maintain the population's health. In this sense the NCDs are a mean and a goal to accomplish a same purpose, the population's health, supported in a package of strategies and technologies that contribute to strengthen the response of institutions and the society in its ensemble, acting in coordinated and synchronized manner on the main causes of these diseases, represented in structural factors around the equity in health and social determinants, behavior risk factors, and existence of protective environments/territories.

In countries where the politics, health systems, legislation, and organizational structure are weak or contradictory in relation with the reduction of inequities and intersectoral work, it is recommended to initiate the process with local scenarios. Bailey (2010) and Fawcett and others (2010) point that having common objectives between the allies helps in creating a unified sense to the mission and supporting the collective compromise to improve the population's health. In this same sense they recommend the creation of intersectoral initiatives and partnerships into existing programs.

The intervention should respond to common values according to the nature of the problem of interest, as well as the nature of the intervention to respond to it. Although each intervention has specificities, there are common aspects to all the projects (WHO Center for Health Development 2012), one of them being the "cross-sectoral management, where interests, activities and resources of the different fronts converge in order to contribute to the building and implementation of proposals to face the NCDs from the approach of the SDH and the equity, in an integral and integrated manner overcoming the traditional sectoral and individualists approaches."

The healthy settings could fortify and be fortified participating in an agenda of development, with agreed actions, oriented to build and maintain processes of change and social projection. In this regard Pahl-Wostl et al. (2007) and Steyaert and Jiggins (2007) pointed out, "social learning focused on the development of shared meanings, new institutions, and capacity at the level of the social entity as a result of participation and collaboration, and learning generated by feedback between project outcomes and the problem context."

Alliances: Context-Specific and Process-Oriented Approaches

The intersectoral approach is supported in the nature of the institutions, its organizational culture, functioning, and partners' own resources so that from there, alliances can be built that allow and facilitate the implementation of intersectoral actions in pro of the improvement of health conditions and well-being in populations.

In this sense, throughout the strategy values will be built and fortified, strongly associated with the approach of SDH and equity, which are common to various health problematic, such as socioeconomic security, access/use of opportunities and resources, social cohesion, and social groups that share social values and regulations. The prior aspects are shaped and they shape the institutional nature, governability, organizational structure, and use of local resources, fortifying the local capacity to participate in decision taking. These are key aspects for the initiation and sustainability of alliances, as well as their articulation with higher levels, through strategies of communication, social movements, and advocacy.

A recent systematic review conducted by the National Collaborating Centre for determinants of health (2012) to assess the impact and effectiveness of intersectoral action showed the following results: " the strongest effects were observed with more downstream interventions for population health outcomes such as intersectoral collaborations to improve immunization rates and oral health among vulnerable populations. Midstream intersectoral interventions have shown moderate to no impact on the social determinants of health and health equity. The association between upstream interventions and health outcomes is less conclusive."

An experience about intersectoral action is the denominated "watershed management approach" which could be an excellent approach to accomplish the expectative of the intersectoral management and guarantee sustainable development (Bunch et al. 2011). This approach takes into account both the human health and the spatial units where it is produced, combining health with the natural resources; an example is the strategy of healthy settings. However Parkes and Horwitz (2009) alert on the risk that the initiatives that are based only in the spatial conception create a disjuncture between the objects of management and biophysical processes. The author calls the attention on the fact that although healthy settings have an explicit "ecological" and systemic orientation (Green et al. 1996; Poland et al. 2000; Dooris 2005), such approaches often overlook the specific ecosystems within which their healthy cities, schools, workplaces, or hospitals are embedded.

In the practice, the intervention is articulated and integrates programs and functions of the associate institutions, in order to increase the sustainability and cost-effectiveness of these. This articulation facilitates the governability as well as the monitoring and evaluation of the initiative to fortify it. The systems of information, surveillance, monitoring, and evaluation, and processes of the formulation of policies, are an important part of the proposal.

Identifying and engaging key stakeholders including communities, affected people, private sector, and the media, among others, will be facilitated after a clear definition and consensus about their roles and responsibilities. The reach and role played by the different actors in complex and adaptive systems are not static; on the contrary, they are in permanent change in order to respond to new demands and challenges. To this adaptation is what some authors denominate "resilience" (Kay et al. 1999; Regier and Kay 2002; Sendzimir et al. 2004), relating resilience and complexity within the approach of eco-health–ecosystems. Walters-Toews and Wall (1997) see in the health perspective as process of permanent construction, the opportunity to fortify the resilience complex adaptive systems.

Many actions have been subject to research and intervention, but there is still a lot to do, especially around systems of information and surveillance; as well as evaluation of the viability, sustainability, and differential impact and consequences of NCD interventions. A key research issue is related with the process of change and technologies that are effective, viable, and sustainable according to diverse contexts. Methodological approaches to support aspects related with governance, alliances, budgeting and financing, priority setting, and collaborative and intersectoral work.

Impact and Effectiveness Evaluation: Contribution of NCD Surveillance and Information Systems

There is limited experience on intersectoral management; given that we function from planning optics and implementation of sectoral programs, there are no appropriate indicators that give account of the performance, impact, and results of these interventions; it is therefore required to design and implement strategies for the management of intersectoral programs, where surveillance, monitoring, impact evaluation, and advocacy are articulated around the process of decision making agreed upon for the accomplishment of the program goal.

The complexity of evaluating intersectoral actions on the social determinants of health demands relevant and valid methodological approaches that address both the outcomes as well as the building process. Context-specific, complex, and process-oriented approaches for intersectoral action require similarly appropriate mechanisms for assessing their impact and effectiveness (National Collaborating Centre for Determinants of Health 2012).

An evaluation model combining different methodological approaches has been applied and tested in different Latin American countries (De Salazar 2010; De Salazar and Gómez 2011). It makes use of available information and surveillance results to identify trends of changes, while at the same time contributes to institutional and local capacity building to address local issues, converting surveillance on a capacity building and empowerment tool. It supports the establishment of community monitoring and surveillance systems, the recovery of local practices, and the construction of local capacity to produce and use information for action. The application of this model has resulted in increased awareness about the problem and effective ways to address it and contribute to local development.

The evaluation model uses secondary data from surveillance and information systems, complemented with information from qualitative research to identify and understand issues related with the quality of the intervention design and implementation, as well as the contextual factors that could have influenced the intervention achievement and outcomes. The model is available at www.fundacionfundesalud.org.

If surveillance and information systems provide updated and valid data, they could be used to develop long-term studies, to be strengthened with well-designed qualitative studies involving the intended beneficiaries, to better understand the processes and effects of intersectoral action on health equity. The prior aspects should be considered at the light of the needs and demands of information to give account and do advocacy so that participant networks will be continuously informed on the advances, performance, and critical aspects to fortify the initiatives.

Many challenges remain and need to be resolved in order to produce knowledge, evidences,

and appropriate tools coherent with the conditions and specific characteristics of the countries and localities. The challenges include the following: criteria to appropriately define the problem, identifying the grade of vulnerability, inequities, and differential consequences in the health of collectives and specific groups of the population; criteria to formulate relevant and answerable questions; methodological approaches that adjust to the nature of the complex interventions and to the necessities of information of decision makers; and internal and external validity of the results, taking into account the accomplishment of parameters on which the analytic studies are based on. It is highly recommended to establish alliances between international, national, and local institutions and governments and organized communities to plan and develop research agendas and actions that fortify the processes of change and, even more, that help making advocacy in front of different instances for the creation, adoption, and adaptation of proposals, which have demonstrated impact and effectiveness. The most important is to start now and follow up the process of change.

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