

COMPREHENSIVE SCHOOL HEALTH

Research Highlights

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Comprehensive School Health Highlights is designed to provide an accessible look at interesting comprehensive school health (CSH) research and policy reports. Every issue contains "Headlines and Conclusions", followed by a one-page summary of each article.

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The Highlights articles are presented through the lens of comprehensive school health. Icons representing each of the four components indicate use of one or more in an article.

CSH icons Legend:



Social and Physical Environment



Teaching and Learning



Healthy School Policy



Partnerships and Services

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This issue of Comprehensive School Health Highlights focuses on cross-sector and cross-discipline engagement:

- 1. How can Education and Health best negotiate the similarities and differences of their perspectives to maximize collaboration?
- 2. Should school health be an essential function of educators?
- 3. What is the purpose of cross-sector collaboration?
- 4. How can public sector managers juggle collaborative networks with daily work requirements?
- 5. Can university-policy partnerships in the cross-sector mix be mutually beneficial?
- 6. What is strategic science and how can it contribute to evidence-based policy development?
- 7. Why might collaborations change the future of obesity?
- 8. What secrets for public managers are found inside the 'black box' of collaboration processes?

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1. The identification of links between a school health approach and student achievement requires a multilayered approach and common ground between Health and Education.

At the start of the 21st century, a need was identified for indicators for school health that would draw from both health and academic perspectives. Schools recognize that, in addition to their core business of educating students, they also benefit from collaborations benefitting children and youth.

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- 2. School health requires recognition of the equally-important roles of Education and Health. Educators have long been called upon to implement health measures; on the other hand, health professionals have not been called on with equal measure to work for student achievement improvements.
- Schools are in the business of educating students. Since school staff are integral to school health promotion, their views of the potential advantages and disadvantages of comprehensive school health / health promoting school initiatives are key to the success of the work.

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- 3. Cross-sector collaborations are important for many reasons: multiple departments / agencies / organizations share power to address public issues; governments can improve their response and service to the population. There is agreement throughout the literature that, despite the benefits, cross-sector collaborations are difficult to sustain and success is difficult to achieve. However, they are important: Complex public issues require collective action solutions.

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- 4. It is important to move beyond a general championing or critiquing of collaborations to assess how they work on the inside and what, if any, changes they make to the day-to-day work of public managers.

Most public management networks lack formal power to make change, but do provide enhanced knowledge which leads to policy and program solutions.

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- 5. Large-scale societal problems and social responsibilities have led universities to relationships outside the lucrative industrial collaborations, to networks with governments and communities.

 The case for cross-sector collaboration in general to achieve outcomes that no single sector or organization could achieve on its own also applies to public-university partnerships. In the case of government and university teams, the usual focus is on a social issue or problem, and each side needs the other to achieve optimal results.
- 6. The food and beverage industry, like other industries under criticism, is interested in developing private-public partnerships. Improved communications between researchers and policy makers would develop a strategic science response to public health issues.

A communications bridge linking policy makers with researchers and other stakeholders, including industry, will enhance evidence-based policy development in nutrition, obesity prevention, and industry impact in public health issues.

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7. The widespread dilemma of obesity in children and youth requires collaboration, not only among relevant government ministries, but broadly with community groups, industry, and researchers, on a national and an international scale.

The evidence on obesity prevention increasingly points to policy responses that include actions in non-health sectors, food and built environments, and investments in support systems.

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8. Public sector managers will reach the higher level of outcomes that separate collaboration from cooperation when they understand the five dimensions of collaboration processes: governance, administration, organizational autonomy, mutuality, and norms. Public managers must budget the time costs involved in negotiating with collaboration partners so that trial-and-error learning and credible commitments may be built.

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How best can Education and Health negotiate the similarities and differences of their perspectives to maximize collaboration?

In the last few decades, school health programs have been driven by priorities in public health. The role of education was seen as the provider of the venue where health programs would occur, a convenient place to access children and youth. Research has provided some clear evaluation of the ineffectiveness of singular approaches to health interventions in schools as well as the importance and positive outcomes of collaboration of health and education stakeholders – a 'comprehensive school health' approach.

The early approaches saw public health agencies working to influence health behaviours in students by implementing programs in school curriculum. Currently, the comprehensive school health (CSH) approach "has the advantage of working with and for schools for the benefit of students, rather than working on schools to achieve public health goals" (p. 46).

In this CSH foundational article, St. Leger and Nutbeam have compared and contrasted school health promotion from the two perspectives - health and education - through a mapping model.

Goals: Overarching goals of health and education differ substantially, and this difference has contributed to the disconnect between the two sectors and the less than optimal success in implementing strategies. The overall goals from the health perspective are to promote physical and mental wellbeing, and to reduce morbidity and mortality. The overall goals from the education perspective are autonomy, independence, and citizenhood.

School-related outcomes: Similarly, the outcomes that result from school action are based on very different indicators. Health indicators focus on behavioural objectives - physical activity, balanced diet, to name two. Education indicators concentrate on knowledge and competencies - including personal and social responsibility.

School-based interventions: However, where schools intervene - teaching and learning, supportive physical and social environment, school policies, collaborations

with parents and broader community – the maps provide a common structure for both health and education interaction. The commonalities provide students, schools can guidance for united response to student health and achievement and for ongoing collaborations.

"By providing a comprehensive educational and social experience for maximize both the educational and health benefits of being at school"(p. 46)

Conclusions: "Research from the health and education fields suggest an increasing coincidence of schoolrelated outcomes, school-based interventions, and **inputs** that affect both the health and education outcomes of students" (p. 49). It is difficult – probably impossible - to identify one causal link between a single intervention and changes in student health or achievement. In applying a multiplied set of inputs and interventions it is important to remember the differences in health and education perspectives: The health perspective has been traditionally top-down and goal oriented in its role in schools, emphasizing behaviour modification; The education perspective is more bottom-up, and process-oriented, with an emphasis on teaching and skills/competencies acquisition. The use of a mapping model is one way of assisting the two sectors in finding common ground.









Reference: St. Leger, L. & Nutbeam, D. (2000). A model for mapping linkages between health and education agencies to improve school health. Journal of School Health, 70 (2), 45-50.

Why should school health be a core function for educators?

"There has been limited research on HPS [Health Promoting Schools] that specifically focuses on educational perspectives" (p. 241).

In the 1980s, the health sector's involvement in schools expanded from the concentration on clinical services and health curricula that defined the sector's traditional relationship with education. The changes were advocated by public health agencies to address behaviour patterns such as tobacco use, unhealthy eating, and low physical activity rates, patterns that impact lifelong health status and often begin during the school years. The move reinforced the limited value placed on education's perspective in school health. This has changed very little in the last 30 years.

This study conducted qualitative interviews with Australian principals, other school administrators, and teachers about their perceptions of health promoting schools and their interactions with the health sector. It was made clear to the researchers that educators did not have a firm understanding of what is a health promoting school, whether this is a label that is or would be beneficial to their school, and whether this was a core function of the school or an additional burden for teachers. Some participants felt that the 'health promoting school' label was an external invention of the health sector to identify the school in ways that ranged from a 'peanut free school' to a 'safe and happy school'. Some felt the label meant nothing. Others felt the label would be something positive, especially for a disadvantaged school.

The educators consistently named the improved health of students as a key benefit of the health promoting school tag; many also connected this to student achievement. A number of participants connected school health in a broader sense of student advantage, in that children and youth might gain benefits not routinely provided to them by their parents or the school; improved self-esteem was suggested as a possible outcome.

Staff benefits, as a consequence of a health promoting school, included a more positive work

environment, professional development, and improved self-health as role models. Yet, many participants felt

that educators would not make at-home lifelong behaviour changes as the result of being involved in health promoting school initiatives.

Conclusions:

Schools and educators often view school health initiatives that are funded by the health sector as having different

In very simple terms, school health programs are commonly developed by health professionals but delivered by educational professionals who often have significantly different priorities and bring a different perspective to the meaning and importance of "health" in schools (p. 241).

meanings and priorities than health intended. This can be frustrating for health funders. It is also frustrating for educators who operate in a system of policies, curriculum, and external priorities, such as student test scores. Health professionals are very clear about the health benefits for students of health promoting school activities. The authors recommend that uptake by educators will improve if health officials are as concerned about education outcomes as about health promotion.









Reference: Mohammadi, N. K., Rowling, L., & Nutbeam, D. (2010). Acknowledging educational perspectives on health promoting schools. Health Education, 110(4), 240-251.

What are the essential ingredients for cross-sector collaboration?

Governments, not-for-profit organizations, research centres, and industry are increasingly creating formal collaborations to meet mutual needs. There are many benefits, but cross-sector collaborations are not easy; neither are they a panacea for the social problems and issues they have been created to address.

One of the clearest difficulties in cross-sector collaborations emerge from the very reason for their creation: small changes in the make-up of a system or organization reverberate in many directions with unexpected results. For example, collaboration between health and education forces each side to re-examine its approaches to the student, its understanding of the other side's mandate, and the very language each side uses to explain a social problem: bullying, for instance, or healthy eating.

In addition, concepts that we might formerly have considered in very narrow terms, such as health care, are now seen as education policy, teacher professional development, partnerships with community organizations, and teen emotional wellbeing.

Framework for Understanding Cross-Sector Collaboration

Initial Conditions: 'The ground is in motion' or increased environmental instability leads sectors to agree to collaborate – also known as stabilizing organizational approaches to an issue (i.e. student health) and reducing resource dependencies.

The social or population issue that led to the collaboration can be addressed in one of three ways: "We can live with the problem, engage in symbolic action that does little to address the problem, or mobilize collective action to fashion a cross-sector solution that holds the promise of creating public value" (p. 46).

Process Components: Process managers should work to improve participatory process among stakeholders and equalize power. The network creates legitimacy in three ways: (1) as a form of organizing that attracts internal and external support, (2) as a separate entity recognizable to insiders and outsiders, and (3) as a source of trusted interaction among its members. Trust exists in varying degrees in the beginning; the collaboration will not hold together without continuous trust-building activities. The

process of planning can improve trust relationships and help to manage conflict, particularly between collaborators that differ in status.

Structure and Governance: Tensions in cross-sector collaboration occur regularly in the need for members to both differentiate and integrate across

elements of the collaboration. In many cases, the concentration of energy has been placed on the process of organizing rather than on the practice of the organization. The structure of cross-sector collaboration is as strong as the system's stability and the resources. It is affected by the system's strategic purpose, the nature of the tasks that are performed, and ambiguity of the membership. "Ambiguity arises from many features of membership, including perceptions of who belongs to the collaboration, what these members actually represent (themselves, their organizations,

Cross sector collaboration

is defined as "the linking or sharing of information, resources, activities, and capabilities by organizations in two or more sectors to achieve jointly an outcome that could not be achieved by organizations in one sector separately" (p.44).

or a particular identity group), and turnover among members" (p.49).

The governance of this form of collaboration is troublesome because it imposes vertical structure on a horizontal network. It is, however, essential to the survival of the collaboration to have a structure of coordinating and monitoring activities.

Despite the roadblocks, the challenges that face cross-sector collaborations "must be met or else effectively addressing the major public problems that confront us will be unlikely, and some of the most important opportunities for creating public value will be missed"(p. 52).









Reference: Bryson, J.M., Crosby, B.C., & Middleton Stone, M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review*, 66, S1, 44-55.

How can public sector managers juggle collaborative networks with daily work requirements?

If collaboration is critical to the success of public and social initiatives, then these networks must be accepted as an essential aspect of the working lives of public managers. As well, collaborations and networks must be examined in the same way as are budgets, human resources, and hierarchical organizations.

The author interviewed government and non-government managers, including those from non-profit, for-profit, and universities, to understand the relationship between their involvement in collaborations and their daily core work. From these interviews, he provides a number of practical suggestions for collaborative management:

- 1. The formal collaboration is but one form of networking. Managers develop and engage in many levels of networking as part of their regular tasks. Indeed, a formal network may be less frequently accessed than are the multiple contacts and associations which also form part of a manager's knowledge and capacity base.
- 2. Collaborations do not replace hierarchies. Despite the benefit of collaborations as examples of horizontal partnering, the great number of managers spend much of their workdays in the linear, vertical hierarchies that collaborations were touted to replace. Collaborations provide access to knowledge across sectoral boundaries but do not replace the need for internal skills and expertise.
- 3. Collaborations must bring clear advantages. Longstanding networks exist because they provide public and professional value to their members: through individual skills and knowledge; through value added to the home department or agency; through collective knowledge, strategic, and policy changes.
- 4. Collaborations formed to share information or improve members' capacity to conduct daily work offer time efficiencies. Many networks are formed to tackle challenges similar to those encountered by public managers in their normal work places. Informational networks exchange information useful to all involved. Developmental networks offer education and member

services that benefit individual as well as the collective agencies.

5. The costs of collaboration are real and must be acknowledged. Staff time to devote to collaborative ventures, as well as frustrations involved in negotiating

across disparate sectors and distances complicate acceptance or and commitment to the network.

6. Collaborative agreements are the products of mutual learning and adjustment. Members of the collaborative are co-convenors, co-strategists; authority is shared. The work is completed by small sub-groups of members.

In particular, public sector networks "add value through their knowledge- enhancement functions, which, in the long run, bring beneficial outcomes to the participating managers and professionals, the partner agencies, the collaborative process, and to short- and long-term policy and program solutions" (p. 63).

7. Network activity is most often focused on the management of both *explicit knowledge* - surveys, policy guides, strategic plans - and *implicit knowledge* - 'what works', communities of practice, staekholder consultations.

Public managers are increasingly involved in a variety of collaborative relationships, changing the way they work, share knowledge, and seek solutions to public problems. The process of collaboration is positioned to create collective understanding and actions which address challenging social issues.









Reference: Agranoff, R. (2006). Inside Collaborative Networks: Ten Lessons for Public Managers. *Public Administration Review*, 66 (Supp), 56-65.

Can university-policy partnerships in the cross-sector mix be mutually beneficial?

Universities have a tradition of partnering with industry, particularly for the significant financial gains for which these connections have come to be known. In more recent years, partnerships with public institutions around social causes have also grown in number.

Key Issues in Cross-Disciplinary Collaborations

It is essential to bear in mind, when forming cross-sector and cross-discipline collaborations of policy, practice, and research that intersectoral partnership is different from other kinds of collaborative activity, specifically internal (or intra-university) collaborations that draw on a reservoir of common norms and understandings.

Government-University Partnerships

The complexity of government and research collaborations begin to be clarified by the definition of cross-sector social partnerships: "projects formed explicitly to address social issues and causes that actively engage the partners on an ongoing basis". Partners in these types of collaborations engage at the systems level around a social problem or issue. This focus distinguishes cross-sector social partnerships from economic or scientific or technological partnerships and, as a result, may include much more disparate organizations. Such a systems collaboration then looks to external sources to complement its own strengths the basis of resource dependence theory. In other words, the sectors will collaborate to access necessary resources and to improve their power or influence in relation to the issue(s) of concern.

Universities partner with governments in order to leverage new markets, mobilize funding for research, offer as legitimate stakeholders in the quest to improve the social issue(s), and / or because they are mandated to do so by the researchers' institution or funding agencies. This movement of universities into partnerships with policymakers, practitioners, and community organizations has emerged out of growing realization that large-scale social issues "resist solution by single organizations or sectors, partly because of the fuzzy boundaries of social metaproblems" (p. 41). The author also argues that

a collective organizational response – something he calls a domain focus – to a social metaproblem is seen by partners as one way of correcting the problem that has arisen "in part because organizations are attempting to secure self-interested advantages

at the expense of communal benefits" (p. 40) – advantages like those charged of food industry at the expense of the healthy weights of the population.

In other words, one of the reasons that sectors, organizations, and universities join together into collaborations may be because the social problems are so far**University researchers** often engage with industry partners during a research study, but are less often involved in a network of institutional decision makers in matters of resource allocation, structural modifications, or policy changes on the scale required for organization-level commitment (pp. 35-36).

reaching that each recognizes it may have had some role in either beginning or in maintaining the problem. Rationales, then, for these collaborations tend to be based either on an altruistic interest in correcting social problems or organizational self-interest.

The decisions of universities, governments, and organizations to collaborate often depends on the fit of themselves into the partnership and whether each group complements the diverse range needed to address the issue or problem. The issue of focus becomes the organizing principle around which the various groups commit to collaboration.









Reference: Siegel, D.J. (2010). Why Universities Join Cross-Sector Social Partnerships: Theory and Evidence. Journal of Higher Education Outreach and Engagement, 14(1), 33-62.

What is strategic science and how can it contribute to evidence-based policy development?

The food and beverage industry is taking small steps toward more responsibility for public health – but only because it is beginning to feel the weight of negative media attention and public opinion, as well as government concern. However, far from making changes to advance healthy eating, the industry "has reacted to criticism in ways forecast by the behavior of other industries" (p. 1487), specifically the tobacco industry.

Role of Strategic Science

The research community contributes to evidence-based policy making, but its usual practice of disseminating research findings in peer-reviewed journals rarely leads to practical implementation. Improved communication between research and policy for the purpose of contributing to the common good is possible with a strategic science model.

To return to the example of the food and beverage companies, industry has taken strides to defend unhealthy products by claiming the public is responsible to maintain a healthy balance in food consumption -- the 'calories in-calories out' argument. However, the need to balance appropriate levels of physical activity with work, sleep, and family cannot compensate for foods excessive in sugar, sodium, and trans fats. Healthy foods provide the body with resources that unhealthy foods cannot: "foods with similar caloric content can have markedly different nutrients; eg, 100 calories of broccoli vs 100 calories of french fries or sugared beverage" (Koplan, p. 1487).

A Four-Step Model

The strategic science model was developed for work in nutrition policy, obesity prevention, and food systems research but designed to be of general transferability.

- 1. Identify change agents. Agents for change in policy institutions and ministries can work with researchers to create reciprocal information channels and uncover knowledge gaps.
- 2. Develop strategic questions. Determine the questions requiring answers for the policy process to be completely informed. Examples of questions include

the projected impacts of competing policy approaches, perceptions of a policy based on different approaches, costs of implementation.

- 3. Scholarship. The strategic questions will generate the research questions, methodology, and analysis.
- 4. Communications.
 Traditional research
 dissemination in peerreviewed journals is
 essential to ensure scientific
 rigour. More helpful to
 policy makers are policy
 briefs and other short forms
 of communication on the
 relevance of the research
 to the particular policy
 questions.

A super-sized burger meal can contain more than 2300 calories. The exercise equivalent of running a marathon would be necessary to burn these calories (Koplan, p. 1487).

A new approach is needed

The food and beverage companies will improve their opportunities for more positive collaborations with public sector by supporting recommendations made in numerous public health reports developed in the past few years. They will further advance their opportunity for a more positive public sector response when they reformulate products, actively promote smaller portion sizes, and use reputable science in product development. A process of communications exchange between scientists and change agents in industry and government could support improvements in these collaborations and impact evidence-based policy.









References: (1)Koplan, J.P., & Brownell, K.D. (2010). Response of the food and beverage industry to the obesity threat. Journal of the American Medical Association (JAMA), 304(13), 1487-1488. (2) Brownell, K.D., & Roberto, C.A. (2015). Strategic science with policy impact. The Lancet, 385 (9986), 2445-2446.

Why might collaborations change the future of obesity?

The increasing prevalence of obesity is impacting countries around the world, affecting low- and middle-income as well as the wealthiest nations. Prevention programs in higher-income countries that target younger children, time in front of television and computers, and increased physical activities have shown some positive results.

However, the authors argue that since a dietary / physical activity imbalance - higher calorie diets plus more sedentary lifestyle -- changes slowly and population weight has been increasing steadily for decades, a greater energy gap is required to make sustained change. For example, the United States has developed the Healthy People 2010 goal to reduce excess weight proportions in the population to that of 1970 levels. The difference, though between the energy needed to stop gaining weight and that needed to lose a specified amount of excess weight, or the maintenance energy gap, requires more change in heavier people. To reverse dietary / physical activity imbalance in an average adult amounts to approximately 240 kcal per day; in an adult with a body-mass index in excess of 35kg/m2 a change of approximately twice as many calories daily is required.

The prospect of such substantial change in an entire population leads the debate away from this sort of damage control tactic and towards obesity prevention, specifically toward children who have not had the years of behaviour patterns leading to obesity and, so, smaller changes are needed.

Cost-Effectiveness of Obesity Interventions

Policy makers want to see successful interventions but also value for expenditures. With this in mind, the study explored a number of Australian obesity prevention interventions aimed toward children and youth as well as interventions targeting adults. Cost effectiveness and positive results were the targeted outcomes. The evaluations indicated that "policy approaches generally show greater cost-effectiveness than health promotion or clinical interventions" (p. 840). Decisions on implementing

prevention or treatment interventions were not always based on cost-effectiveness or evidence of success, however. For example, reducing television advertising of unhealthy foods and beverages aimed at children and youth was found to be among the most cost-effective

interventions, but was not considered to be on the "political agenda of the Australian Government, so implementation is highly unlikely." As well, there was support for applying front-of-pack traffic light nutrition labeling but the evidence on effectiveness was insufficient to merit support.

"A typical 9-year-old boy weighing 30 kg expends an extra 630kJ (150 kcal) by replacing 1.9 h sitting with 1.9 h walking; this action is equivalent to replacing one can of a sugar-sweetened drink with water" (p. 840).

A Systems Approach to Obesity Prevention

What do cost- and evidence-effectiveness studies mean for cross-sector collaborations? The authors call for collaborations, particularly among government ministries, as essential to the multifaceted approach that is required in order to reverse the obesity trend. Government actions will be most successful if they are aligned with those developed by international agencies, such as the World Health Organization (WHO) and the United Nations Standing Committee on Nutrition. Other important partners are the private sector, including foods and beverages industries and built environment industries; civil society groups; health professionals; and individuals.









Reference: Gortmaker, S.L., Swinburn, B.A., Levy, D. et al. (2011). Changing the future of obesity: science, policy, and action. *Lancet*, 378, 838-847.

What secrets for public managers are found inside the 'black box' of collaboration processes?

Public managers are often torn in different directions when it comes to collaboration. These directions model the historical roots of collaboration and are confirmed in the research literature: On the one hand is classic liberalism with a path of private interests for collective purposes, "self-interested bargaining" (p. 20); On the other hand is civic republicanism's emphasis on public commitment and "mutual understanding" (p. 20).

Collaboration is a relative of other similar terms: cooperation and coordination. But it involves a higher order level of sustained and collective action and leads to a change in the parties: a whole greater than the sum of the parts, more difficult to describe, likened to "the combination of hydrogen and oxygen atoms to form water" (p. 22).

Inside the Black Box: Five dimensions for public managers

The authors posit that in order to gain this more complex level of collective action – in order to move from cooperation and coordination to collaboration – public managers must understand the "multidimensional nature of collaboration" (p. 22). Keys to collaboration are a collective action perspective balancing five dimensions:

- **1. The Governance Dimension:** Partners make decisions jointly. This does not mean that everyone agrees with the decision. It means that, once made, all parties agree to honour it; all members' interests are legitimate interests.
- **2. The Administration Dimension:** Decentralized structures require a coordination and communications centre. The collaboration needs administration to build interorganizational relationships, to be the broker among power structures, and to manage interdependency.
- **3. The Autonomy Dimension:** "Partners share a dual identity" (p. 26). The autonomy-accountability dilemma is exacerbated by the voluntariness implicit in collaboration: partners need to justify to their own places the need for the collaboration. "Unless the particular problem is of sufficient urgency to all

partners, it is likely that individual missions will trump collaboration missions" (p. 26).

4. The Mutuality Dimension: Mutual benefits are the outcome that often preserves collaborations and keep the partners from returning to their own interests

at the expense of others' and the partnership itself. Collaboration begins with commitment by the partners to shared interests: to a mission, to a target population, to a culture. Of these, commitment to a similar target population has proven to be one of the most important to enduring collaborations.

transforming in the sense that you don't leave the same way you came in. There's some sort of change. You give up part of yourself. Something new has to be created. Something happens differently because of the process" (p. 20).

"Collaboration is

5. The Norms of Reciprocity and Trust Dimension: This

dimension moves reciprocity from a short-term "I will if you will" willingness to engage over to a long-term obligation based on "social and cultural tenets" (p. 28). A reputation for trustworthiness is developed, again over the long-term and based on an understanding among members that each will make good on commitments to the collaboration, a "psychological contract" (p. 28).

In the end, the black box of collaboration rests on commitment to time for partnership and relationship growth. "Collaboration can't be rushed.... Organizations don't initially start with a cost-benefit analysis. They start with a kind of idealism.... When organizations are willing to make the costs that is when you have moved to collaboration" (p. 28).









Reference: Thomson, A.M. & Perry, J.L. (2006). Collaboration processes: Inside the black box. Public Administration Review, (Special Issue), pp. 20-32).