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Collaboration, Coproduction, Networks – Convergence of Theories

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ABSTRACT

This paper suggests to study service delivery networks by drawing on the theories of collaboration, coproduction, and networks combined. We introduce four dimensions of coproduction under 'coproduction-oriented collaborations'. This framework allows us to 'zoom in and zoom out' when we study networks. Using the case method approach, the framework is applied to analyse four networks in Singapore. Findings suggest that network process, network structure, and characteristics of actors are crucial to a network's performance. The paper also offer implications for practice that in certain contexts the usage of these concepts are for managerial effectiveness and not for enhancing democratic values.

KEYWORDS

Coproduction, collaboration, network, Singapore, social services

INTRODUCTION

Studies on collaboration, coproduction, and networks have taken off from different contexts. Most of the studies on coproduction have emerged out of the U.K. by European scholars in public administration, especially those who study the social services sector. On the other hand, in the U.S. especially at the Maxwell School, Syracuse University there is a fast growing set of scholarly writings on the concept of collaborations. IBM and other consultancy companies have also produced a number of manuals on how to manage collaborations. Alongside these two concepts, the studies on networks have grown significantly. It has caught attention of scholars from a variety of fields such as public administration, public policy, international relations, sociology, political science, and business administration. Often the claims, hypotheses and research questions pertaining to these three concepts either overlap or are closely related. There is very little scholarly work that deliberately studies these concepts together. Exceptions are such as Bode's study of co-governance within networks (Bode, 2006) and Brandsen and van Hout's study of co-management in public service networks (Brandsen

& Hout, 2006). This paper aims to suggest a common framework that incorporates all three strands of literature that will enable managers to better understand the setup, behaviors, and effectiveness of complex public service delivery systems.

In this paper, we begin by identifying definitions and key arguments from the existing literature. Then we introduce our take on one way to converge the three concepts - how we can link them into one common framework for analysis. Next we analyse four networks in Singapore by using the proposed framework. From the analysis we draw implications for theory and practice. This study is important not only because it explicitly bridges the concepts but also it is the first of its kind from Asia and Singapore in particular, where social welfare is not the government's top priority and where civic life is often thought to be restricted. Singapore's context makes this case more relevant to many other countries compared to highly mature democratic societies in Europe and the U.S.

STRANDS OF LITERATURE COLLABORATION, COPRODUCTION, NETWORKS

Collaboration

Collaboration or the study of collaborative management is defined as 'a concept that describes the process of facilitating and operating in multi-organizational arrangements to solve problems that cannot be solved or solved easily by single organizations. Collaborative means to co-labor, to achieve common goals, often working across boundaries and in multi-sector and multi-actor relationships. Collaboration is based on the value of reciprocity and can include the public' (Agranoff & McGuire, 2003, p.4). **The main difference between the original ideas of collaboration and coproduction involves how the former focuses on organizational-level, while the latter focuses on individual-level (i.e. citizens and professionals). Also the latter focuses on the fact that one person or organization can simultaneously be both the producer and consumer of service. Compared to the definition of coproduction and networks, the concept of collaborative management is overarching. It covers all types of relationships between entities in to get things done in the public sector. These entities are from public,**

private and non-profit sectors combined. Some might insist that coproduction and networks be categorized under this large rubric of collaboration.

Collaborative management places emphasis on participatory processes that enable citizens to better influence the actions of governance networks. It is grounded in normative foundation of democratic participation and deliberation (Koliba, Meek, & Zia, 2011, p. 196). Similar to coproduction, collaboration is a dynamic and emergent process rather than a static condition (Gray & Wood, 1991; Selden, Sowa, & Sanford, 2002; Bingham & O' Leary, 2008). Collaborative governance includes vertical collaborations (across government bodies) and horizontal collaborations (across organizational and sectoral boundaries) (Agranoff & McGuire, 2003). Agranoff and McGuire suggest that collaboration is about selecting actors and resources, shaping the network, and developing ways to cope with strategic and operational complexity (2003, p.34).

Collaborative management is paradoxical in that it requires managers to be autonomous yet interdependent, and they need to be participative and authoritative at the same time (O'Leary & Bingham, 2007). It is distinguishable from cooperation and coordination (Gray & Wood, 1991; Bryson & Crosby, 2008). Cooperation is less formal, involves sharing information and maybe short term. It involves reciprocities, exchanges of resources without necessarily having mutual goals (Thomson & Perry, 2006). Coordination is the orchestration of organizations toward a particular goal that is longer-term that provides shared rewards. Collaboration is a closer relationship between the parties where new structures emerge and social and organizational capital is built (Bingham, 2011). Collaboration involves a willingness of parties and stakeholders involved to enhance one another's capacity for mutual benefit. The parties share risks, responsibilities and rewards, invest substantial time, share common turf and have high levels of trust (Himmelman, 2001). Collaboration can be analogised as cooperating for a mutual goal , achieving individual ends with an additional outcome that is shared separate from the individual ends (e.g. better social outcomes, better coordination of services) (Thomson & Perry, 2006).

Coproduction

The idea of coproduction can be traced back to Elinor Ostrom's (1973) study of the Chicago police force in the 1973. Since then the idea has been picked up and studied by scholars around the world (e.g. Whitaker, 1980; Parks, Baker, Kiser, & Oakerson, 1981; Ostrom, 1996; Alford, 2002; Brandsen & Pestoff, 2006; Prentice, 2006; Bovaird, 2007; V. Pestoff & Brandsen, 2009; V. A. Pestoff, Brandsen, & Verschuere, 2012). Alford defines coproduction as the "Involvement of citizens, clients, consumers, volunteers and/or community organizations in producing public services as well as consuming or otherwise benefiting from them" (Alford, 1998:128). We recognize that coproduction is not a steady state but a process or set of actions by actors involved. Coproduction is not simply a platform for people's views. Rather, it is as a venue where non-government organizations and individuals, together with public service professionals, can utilize their practical skills to provide a public service and consume its benefits relevant to them. In the beginning scholars focused on individuals as active citizens who take part in coproduction but the concept has evolved to also include organization level of relationships as well (e.g. Pestoff & Brandsen, 2009).

That said there are many forms of coproduction and distinct concepts identified in the literature. There can be coproduction in different content areas such as economics, politics and service specific areas (Pestoff, 2009). There can also be various forms of coproduction in terms of processes in service planning, design, and management or a more direct role in service delivery (Bovaird, 2007; Joshi & Moore, 2004). It can also take place in the monitoring and evaluation stages of programs.

As clearly segmented by Pestoff and Brandsen (2009), coproduction can also be further segregated into three different but related concepts. A sub-concept is Co-governance, an arrangement that allows the third sector to participate in the planning and delivery of the service formerly or normally produced by public service professionals. There is also Co-management where third sector organizations produce services in collaboration with government agencies. A third sub-concept, titled as the narrower definition of co-production,

would be the arrangement where individual citizens produce their own services in full or part with public service professionals. This could include a community policing service or environmental conservation exercise where citizens play an active role in the implementation.

Various conditions have been identified or hypothesized to promote and enable coproduction. Pestoff (2009) suggests that different forms of coproduction result from different forms of welfare regimes and policies in different sectors. Flexibility of coproduction templates is also argued to enable coproduction to be more successful. Bovaird (2007) suggests that the willingness of politicians to contest the role of professionals and place more trust in decisions made by users and communities also enables coproduction. Third sector involvement also seems to promote participation from non-service providers on the basis that they provide democratization and innovation. However, there is little empirical evidence to suggest the former (Pestoff & Brandsen, 2009).

Coproduction can have many limitations. The more able and resourceful people may dominate proceedings of coproduction. There might also be resistance from professionals to let go of their former powers (Bovaird, 2007). However, most importantly, it dilutes public accountability on the expected outcomes of the affected policy. Governments may start shifting blame and no longer take sole responsibility for any policy failure.

Despite the limitations, coproduction has many obvious benefits. It can be therapeutic as well as diagnostic (Bovaird, 2007). Through coproduction, clients can explore mechanisms for active experience of services rather than simply assuming professionals should perform a service on users. It also mobilizes community resources otherwise not available to deal with public issues. Needham (2008) showed through her case study of social housing in UK how coproduction can create peer pressure for residents to cooperate and comply with regulations. Coproduction can also improve efficiency, through building commitment and trust that reduces irrational hostilities, as well as putting in mechanisms to enhance user accountability (Ostrom, 1996). Former service providers can also transform their role to that of a facilitator of platforms and networks, freeing up manpower and workload (Leadbeater, 2004:24).

Citizens, clients, and organizations have certain incentives to coproduce. As hypothesized by Alford (2002), the incentives for co-producers to coproduce include tangible benefits such as money, goods, or services. Tangible benefits however, are neither sufficient nor necessary incentives in the context of more complex co-productive work. Alford (2002) suggests that nonmaterial rewards that focus on the intrinsic, solidary, and expressive needs of the co-producer are vital when the value of the coproduction exercise is group or public in nature.

Networks

There has been a proliferation of studies on how to manage networks. European scholars as well as American-based scholars have contributed to its development (e.g. Kickert, Klijn, & Koppenjan, 1997; Bogason & Toonen, 1998; Toonen, 1998; Koppenjan & Klijn, 2004; Brandsen & Hout, 2006; Klijn & Skelcher, 2007; Koliba, Meek, & Zia, 2011). Networks are “structures involving multiple nodes—individuals, agencies, or organizations—with multiple linkages” (McGuire, 2006). Network structures are typically inter-sectoral, intergovernmental, and based functionally in a specific policy or policy area (McGuire, 2006). No unit is “merely the formal subordinate of another in a networked setting” (O’Toole, 1997). Networks are an alternative form to hierarchy and free market, reason being that while flexible networks have some level of stability (in terms of membership) and is not simply ad-hoc (Newig, Gunther, & Pahl-Wostl, 2010). As compared to organizations, network ties are multi-dimensional. This includes “authority bonds, exchange relations, and coalitions based on common interest, all within a single multi-unit structure” (O’Toole, 1997).

1) Functions of Networks

There are a few key aspects of networks we find crucial to our study. These are the actor characteristics, network processes, and structure, which affect a network's values and functions. Most networks hold the functions of learning, coordination, and building social capital to a certain degree. Learning is a crucial element in a collaborative network especially when it is set up to deal with a complex problem characterised by unpredictable systems

dynamics, a lack of knowledge on the effects of interventions as well as societal conflicts about appropriateness of interventions (Newig, Gunther, & Pahl-Wostl, 2010).

In general, learning can be simply cognitive or includes behavioural change. It can be collective or individual, and can be single or double looped (Newig, Gunther, & Pahl-Wostl, 2010; Argyris, 1982). Collective learning involves a change of shared mental models among members of a group or network. This often implies changes in social structure changes – which involve changes in institutional structure (informal or formal norms) and/or relational structure (relations between actors). A single loop form of learning occurs when one detects a mismatch between desired goals and the achieved results of an action. Their errors are corrected without changing their underlying values and remains within accepted routines. Double loop learning on the other hand, leads to a change of a person's underlying paradigm. This requires new rules of conduct, routines, and reflection on the goals themselves as well as interrelations between network members. **The ability to learn that involves modifying the organizational learning system itself is called 'deutero learning' (Argyris & Schon, 1996).**

Social capital can be defined as enduring structure of relationships that enables the transmission of information and knowledge (Putnam 2000; Singh & Prakash, 2010; Jones et al, 1997). Building social capital for a society can be considered a form of resource that aids in achieving and maintaining various social outcomes (Putnam 2000; Field 2008). For networks, building social capital specifically contributes to collective action by increasing potential costs to defectors that fosters norms of reciprocity (Putnam, 2000). **Depending on the makeup of the network, bonding (exclusive) and bridging (inclusive) forms of social capital is formed (Putnam 2000; Henry, Lubell, & McCoy, 2010).** Bonding social capital is created by linking people with similar values, beliefs or status together, whereas bridging social capital is created by linking people with dissimilar values together. This acts as template for future cooperation and affects the productivity of individuals and groups.

2) Actor Characteristics

Different characteristics of members of a network affect the fore-mentioned functions. Characteristics include the incentives of network members to participate. Members of a

network tend to be incentivised to participate in a network when the resources are provided in terms of finance and technical expertise. However, activity levels (in terms of variety of activities and amount of time contributed) are highest when network fulfils political interests of members and have goals similar to theirs (Fleishman, 2009). Participation also increases if stakeholders perceive achievement of their goals to be dependent on cooperation from other stakeholders (Fleishman, 2009).

Participant's objectives and goals from the network can include gaining resources for programmes, enhancing organisational legitimacy through contacts, reputation, future contracts, and reducing transaction costs – through only collaborating with trusted partners. Graddy and Chen (2009) suggest that when organisations focus on differing goals, different results occur. Other actor attributes include the impact of network on the participants as well as prior relationship to other participants.

3) *Network Values*

Network values are key towards achieving the functions of networks. Three interrelated, key values have come across various literatures of networks and collaborations. First, trust is key as it enables coordination and acceptance of roles in any forms of networks or collaborations. **Trust can be an instrumental or an intrinsic value.** Trust is ultimately a matter of risk taking (Huxham & Vangen, 2005) that can be built by taking calculated bets. Trust can also be built by sharing information and knowledge, demonstrating competency, good intentions, and follow through (Bryson, Crosby, & Stone, 2006). Some academics argue that if prehistory between stakeholders is highly antagonistic, policy makers/stakeholders should budget time for effective remedial trust building. If not, they should not embark on a collaborative strategy (Huxham, 2005; Ansell & Gash, 2007; Bryson, Crosby, & Stone, 2006). Collaborations are also more likely to be successful when trust building efforts are *continuous* (Bryson, Crosby, & Stone, 2006) rather than one-off.

Commitment to the collaboration process is also key in networks. Even in collaborative efforts that are mandated, achieving buy-in is still an essential aspect of the collaborative process (Ansell & Gash, 2007). Four elements of “power” are crucial towards this achievement

of "buy-in" (Agranoff, 2006). First, is the "champion" - a visible, powerful, and prestigious public agency head or non-profit senior executive who organizes or sustains the network. The involvement of a champion helps signal to and incentivise others in the field to join in the network. Second, is the political core which comprises primary participating department heads from various public agencies. Being part of the governance structure, this gives participants the message that the network is important to be involved with. Third, is the technical core within the network which consists of experts, workgroup activists who know most about a particular topic. These individuals hold considerable persuasion power and are key towards generating buy-in. Last but not least, the administration core who are the ones that staff and organize the logistics of such networks. Their handling of the administration of the network also holds certain amount of power.

The third value within a network is shared understanding of the issue. Similar to trust and commitment, shared understanding is a value that has to be created. This value helps prevents miscommunication and misdirection of efforts (Ansell & Gash, 2007). Shared understanding as a value is especially important when policy issues are complex and stakeholders hold differing notions of the causes of the problem.

4) *Network Processes and Structure*

Network processes impact values and functions of networks. Clear ground rules and process transparency help improve coordination processes within a network (Ansell & Gash, 2007). The former is especially important to help understand each other's perspectives if parties are hostile to each other (Needham, 2008). Face to face dialogue is more than just medium of negotiation. It is also a process of building trust, mutual respect, shared understanding, and commitment to the process. But it is a necessary condition, not a sufficient one (Ansell & Gash, 2007). "Small wins" or immediate outcomes are critical process outcomes essential for building the momentum that can lead to successful collaboration (Ansell & Gash, 2007). If prior antagonism is high and long-term commitment to trust building necessary, then small wins are particularly crucial.

Network structures affect the values and resulting functions of networks. There are two different forms of structures to look at in networks, its general shape as well as governance structure. Some main components of general network structure can be described from the following terms derived from network sciences.

Network centrality measures how “uneven” centrality is distributed in a network. Centrality measures can be determined by degree among many other ways, i.e. the number of direct connections a node has. A highly centralised network is observed when it is dominated by one or a few very highly connected nodes (Prell, 2012). When removed, the network quickly fragments into unconnected sub-networks. A network's overall centrality can be measured by deducting from the number of links a member with highest degree centrality has with the number of links the member with the lowest centrality has. Centralised networks tend to provide consensus on values and goals. It transmits information smoothly. Sandstrom and Carlsson (2008) found efficient performance of networks to be correlated with higher degrees of network closure (Highly centralized and dense networks).

The strength of ties in a network also affects network processes and functions. Strength of ties depend on the combination of time, emotional intensity, intimacy (mutual confiding), and reciprocal services that characterize the tie (Granovetter, 1973:1361). As shown by Janis (1982) in his seminal work *Groupthink*, strong ties may seem beneficial for collaboration but it takes time to build and can lead to a closed view of the world when they are too strong (Janis 1982). Weak ties on the other hand take less time to build and are more flexible to incorporate alternative views, linking network members with actors outside boundaries of the network (Messner, 1995). It however tends not to promote intensive exchange of arguments and deliberation (Newig, Gunther, & Pahl-Wostl, 2010).

Network Density, measured by dividing the number of relations in a network by the maximum possible number of relations, can affect how a network operates. Denser networks can improve the transmission of information since there are many channels of information (Abrahamson & Rosenkopf 1997, Valente 2005) and create more deliberation opportunities

for networks. However, denser networks tend to be less able to adapt to fundamental change such as restructuring the network (Gargiulo & Benassi 2000).

5) *Governance Structures*

There are various ways to govern a network. Depending on the initial conditions and purposes of a network, different governance structures can optimise the functioning of a network (Provan & Kenis, 2008). As described by Milward and Provan (2006), there are three different forms of governance structure in a network which can be used optimally depending on the circumstances. Shared governance, where members of a network share governance responsibilities, can be used when there is a high density of trust (high level of trust between all members of the network) with few participants (no more than 6 organisation reps), high level of goal consensus with a low need for network-level competencies.

Lead organisation governance, where the lead agency takes charge of governance and coordination, can be used when there is a low density of trust (low level of trust between all members of the network with trust placed only on certain members of the network) with moderate number of participants, moderate level of goal consensus with a moderate need for network-level competencies. Network Administrative Organization (NAO) governance, where a neutral party manages and coordinates a network, is used when there is moderate density of trust (moderate level of trust between all members of the network with trust placed only on certain members of the network) with moderate to many participants, moderately high level of goal consensus with a high need for network-level competencies.

CONVERGENCE OF THEORIES

We propose to combine the above concepts of networks, collaboration and coproduction in a converged framework. *It is possible that coproduction and networks exist indendependently of each other. Some networks do not have coproduction and some coproduction arrangements will not be part of any network. Also some collaborations might not be in network form and might not have coproduction processes.* However we argue that increasingly in public service delivery networks, where the main goal is to provide public service or goods it

would be common to find collaborations and coproduction. Furthermore, in collaboration among organizational-level partners there can be components of coproduction with individuals associated with organizations that are part of the collaboration. We also advocate that vice versa is true, which is that most coproduction processes are usually part of a larger set of relations within a public service delivery network. In order to be able to see and study these relationships clearly the researcher must either 'zoom in or zoom out' when necessary.

<Insert Diagram 1>

We adapted Brandsen and Pestoff's (2006) framework to allow us a clearer understanding of what we are analysing. Diagram 1 shows how we have segmented Coproduction-oriented Collaborations into four different quadrants. Each quadrant depends on who is involved in the relationship (spectrum of individuals to organizations) and at which stage of the policy process the relationship is for. We have used the three types of coproduction introduced by Brandsen and Pestoff and have added a new dimension called 'co-consultation'. Co-consultation refers to the process where individuals as citizens, experts or stakeholders are of equal status with professionals in the planning process of public services.ⁱ We think it is clearer to use the term 'coproduction-oriented collaborations' as an umbrella concept to cover all the four models of possible relationships between organizations, individuals, planning, and production.

Using the framework in diagram 2, we seek to understand how policy context, such as the motivations of NGOs as well as the complexity of the policy, affect collaborations. We also want to understand how network processes and structures impact on the network functions, which affect the coproduction process. Third, we try to identify the key values of a network and ways to build it. Last, we seek to pick out key management skills and tasks to manage a network.

<Insert Diagram 2>

This way to view networks and various types of collaboration practices allows us to take into account all aspects of the public service network and to always be able to 'zoom in or zoom out' when investigating relationships among organizations and between organizations and individuals in the pursuit of public goods and services. This next section describes Singapore's background, followed by concrete discussions the four networks that we have applied this framework to.

SINGAPORE'S BACKGROUND

The People's Action Party, the ruling party of the Singapore government, has dominated Singapore politics for 49 years as a one-party government since its independence in 1965. Largely lauded for its development policies, it has brought forth unprecedented income growth and improvement of living standards for its people for the past forty years. This economic success came on the back of the "work for rewards, reward for work" principle of governance (Lee, 2004), where social welfare was eschewed and self-reliance supported so as to promote the work ethic and prevent free-riders. The economic policies together with a socially conservative philosophy enabled the government to reach living standards comparable to western democracies without the public debt issues.

Development of civil societies in Singapore, however, did not resemble that of western democracies. Here, civil societies are more "civic" than "civil" with the government restraining the formation of politically based civil groups and emphasizing citizenship on civic and national duty rather than on individual rights (Chong, 2005). This has led to a civil society that is largely made up of apolitical, non-critical welfare groups, also known as Voluntary Welfare Organizations (VWOs) that provide social services for the poor and needy. Created by law, these VWOs can have charity status allowing them tax exemptions.

Despite limitations on individual rights, the number of non-profit organizations in Singapore has been on a rise in recent years. At present, there are about 130 local and international non-profit organisations in Singapore, which comprises inter-governmental organisations, non-government organisations with a social, humanitarian or environmental focus, industry

associations, philanthropic foundations, think tanks, and **organizations linked to corporate social responsibility (CSR) programs**. This number itself has tripled since 2005 (Economic Development Board, 2012).

Interestingly when it comes to welfare, despite repeatedly emphasizing that Singapore is not a welfare state, the government does heavily intervene in social welfare issues. There are many social programs that aim to help the weaker and less advantaged groups. The government created the Many Helping Hands (MHH) approach based on the principle that various agencies, including government, the community and families, work together in partnership to tackle social issues in Singapore. MHH's philosophy is such that everyone in society should try to be self-reliant. In times of need, the individual should first seek his or her family's help. Failing which, the second line of help should be that of the VWOs, while the government should be the last resort. This philosophy is behind many of the network initiatives created by government to coordinate social services.

So despite seemingly devolving its social responsibilities to the VWOs, the Singapore government plays a large role in the social sector. Not only does it fund the VWOs substantially - the government provides around one third of funds VWOs receives - it continues to play a central part in the coordination, enabling, and planning of social services for the state as a whole. This includes forming networks with VWOs, private sector as well as various government agencies to provide certain social services. In this study we investigate how the Singapore government utilizes collaboration, networks, and coproduction in the provision of these services.

METHODOLOGY

There are a few approaches to studying and defining networks (Newman, 2012; Prell, 2012; Laumann et al., 1989; Wasserman & Faust, 1994; Knoke & Yang, 2008). The realist approach allows actors to define the boundary. It uses several sampling methods such as snowball sampling, fixed list selection, expanding selection, and the more mathematical K-core method (Doreian & Woodard, 1992; Knoke & Yang, 2008; Yang and Hexmoor, 2004). In contrast, the

nominalist approach relies on theoretical or attributes of actors such as their membership in a formal organisation as justifications of the researcher to define the network boundary. Lastly, there is the event-based approach where the network boundary is drawn by examining actors who participated in a defined set of activities at a specific time and place (Knoke & Yang, 2008; Marsden, 2005).

With the aim to explore how the proposed framework can be applied to study formal networks in Singapore, we have adopted the nominalist approach, using interviews as the main mode of data collection, supplemented by the archival method for the network analysis. Archival method is the use of available information to gather data such as newspapers, historical texts, minutes of meetings (Prell, 2012). The objective of the study was to study how organisations coproduce a programme or policy. It would not be meaningful to use the realist approach, which may lead to studying of phenomena outside of formal partnerships. We also concluded that interviews are more efficient than direct observation and more reliable than surveys. Following Miles and Huberman (1994) and Yin's (2009) case study approach we minimized the possibility of biasedness through using semi-structured interviews, archival data, and having a framework developed in the early stage of the research.

Data collection took place April 2012 to July 2012. In the initial stage we scanned official websites and news reports published between 2010-2012 by using key words such as networks, collaborations, and public-private partnerships. In total we were able to identify 24 networks and collaborations.ⁱⁱ Of the 24 we selected ten networks that had a clear presence. We judged this by preliminary phoning the agencies to ask about the network's activities and goals and asked them to fill in a simple online survey on the description of their network.ⁱⁱⁱ We then narrowed down the number of networks to do in-depth study by selecting from the ten those that displayed stability, in other words were in operation for more than one year and had a core team of people running the network, and willingness to take part in the study.

Of the four that we finally selected, three are in the social services sector and one is in the environmental sector. This proportion reflects the government policy to support VWOs in social services sector more than other sectors. The networks are 1) The National Family Violence Networking System (NFVNS); 2) Community Action for the Rehabilitation of Ex-Offenders (CARE); 3) The Response, Early Assessment for Community Mental Health (REACH); 4) Community in Bloom (CIB). We then interviewed the selected network actors to understand the nature of their networks. The people we interviewed include public managers, volunteers, and the VWO officials. Aside from the rich interviews, we also directly observed some of the networks' projects and used documents produced by the networks to form our analysis.

DESCRIPTION OF THE CASES

The National Family Violence Networking System (NFVNS)

Responding to the UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) that Singapore ratified in 1995, the National Family Violence Networking System (NFVNS) was launched in 1996. Prior to this, a prominent civil society organization, the Association of Women for Action and Research (AWARE) first launched its campaign against domestic violence in 1985. Together with the Singapore Association of Women's Lawyers (SAWL) and the Society Against Family Violence (SAFV), talks, advertisements, forums, support groups, and other initiatives were launched to raise awareness about domestic violence in Singapore. In 1994, the Ministry of Home Affairs, Ministry of Community Development, Ministry of Health, and the Singapore Council of Women's Organisations launched an Inter-Ministerial Working Group to improve the management of violence between spouses. Over time, the NFVNS would grow into a system that sought to provide victims of family violence multiple points through which they could access help.

This led to an evolution in the framework for domestic violence management including the 1996 Women's Charter and the 1997 legislation of Family Violence. Responsibility for the oversight of policy planning and strategic management of family violence in Singapore lies with the Family Violence Dialogue Group (FVDG), which is jointly chaired by the Ministry of

Community Development, Youth, and Sports (MCYS)^{iv} and the Singapore Police Force (SPF). The provision of services to victims of family violence is organized geographically via 6 Regional Family Violence Working Groups (FVWG). These FVWGs link the police, hospitals, schools, social service agencies, the Courts and MCYS for closer collaboration via the Case Management Framework.

Community Action for the Rehabilitation of Ex-Offenders (CARE)

Co-chaired by Prisons and Singapore Corporation of Rehabilitative Enterprises (SCORE), the CARE Network was set up in 2000 to improve the effectiveness of the efforts of different agencies involved in rehabilitative works for ex-offenders in Singapore. It is also the first formal structure that brings community and government agencies together to provide in-care to aftercare services to the ex-offenders. Currently the network consists of 8 agencies: Singapore Corporation of Rehabilitative Enterprises (SCORE), Ministry of Home Affairs (MHA), Ministry of Community Youth and Sports (MCYS), Prisons, National Council of Social Services (NCSS), Industrial & Services Co-operative Society Ltd (ISCOS), Singapore Aftercare Association (SACA) and Singapore Anti-Narcotics Association (SANA). Through the alliance, the CARE Network aims to pool resources and co-ordinate activities to achieve synergy in engaging the community in rehabilitation as well as develop rehabilitative initiatives. This is done through regular meetings and the Case Management Framework.

Community in Bloom (CIB)

Singapore's concept of Garden City began as early as 1960s. Some government agencies saw the natural environment as crucial for Singapore: they aspired to make Singapore a model for managing urban environments. For 40 years the government single-handedly managed green space. Only in 2004 did the government decide to include citizens – to enhance their well-being and sense of ownership of public space. National Parks or NParks is the champion public agency that has collaborated with other organizations to provide seamless green space in the city. One of their main partners is an NGO known as Nature Society. They also rely

heavily on expert individuals who are passionate about the environment (e.g. butterfly, hornbill, spider experts).

Recently, Singapore has evolved its mission to creating a City in a Garden. To support that, the Community in Bloom (CIB) program was launched in 2005 by the NParks in collaboration with partners including Town Councils, Housing Development Board, People's Association, National Library Board, other non-governmental organisations as well as the private sector. These organisations provide a range of support including land use, garden set-up, grassroots liaison, gardening talks and other initiatives. The CIB aims to foster a gardening culture among the community by helping to facilitate and guide residents, students and workers in Singapore to set up and sustain their community gardening projects. Besides from taking care of the plants, these plant lovers also meet up regularly to share gardening tips and plant specimens as well as organize visits to other gardens and meeting with like-minded people to exchange ideas and experience. CIB hopes to link-up all gardeners and community gardening groups into a self-sustaining National Gardening Movement. There are currently over 400 community gardens in Singapore.

The Response, Early Assessment for Community Mental Health (REACH)

REACH program was formed in 2007 with the main objective of early intervention for children with mental health conditions such as Attention Deficit Hyperactivity Disorder or various forms of anxiety disorders. Prior to this initiative a substantial proportion of the people rather rely on religious rituals or traditional medicines than go to the psychiatrist due to stigma issues (Chong, 2007). This led to a mental health system that had a huge gap between treating patients with mental health conditions and the estimated number of patients in the population (Woo et al., 2007). Spearhead by mental health professionals and administrative staffs from three public hospitals, the REACH team partners with schools all over Singapore to identify children with possible mental health conditions. The team also works with VWOs to help children who are not in School. REACH also works with General Practitioners (GPs) to provide medication to patients at clinics near their homes without the need for them to go to the central

hospital. The REACH team's goals are quite clear in that they want to better intervene in a child's mental condition before it becomes more serious. Backed by the government, the REACH team is well resourced both in manpower as well as funds in seeking to achieve these goals.

<Insert Table 1>

APPLICATION OF THE FRAMEWORK

We found components of collaboration and coproduction in all four networks. The diagram below depicts the network structure, which is made up of collaborations, including individual-level co-production processes.

<Insert Diagram 3>

Key characteristics of these cases are the following. **First, all four networks** are led by government. Second, most VWOs and community groups rely on government funding. Third, certain agencies such as MCYS, Prisons, and NParks are very open to working with VWOs and citizens to provide services. Collaborations are often initiated by government agencies. Agencies are also very open to policy changes and operating procedures based on experience and recommendations from the ground. Fourth, the government plays a key role in nurturing certain VWOs to grow and strengthen such as the setup of VWOS in REACH and of TRANS for elderly protection in NFVNS. Lastly, government has creatively included VWOs and civic leaders into formal government circles and structure such as nomination to chair committees and advisory boards.

In the following section, three factors are analysed: characteristics of actors; network structure; and network process in congruent with the implications towards collaboration and coproduction. We argue that all three factors affect each other, which in turn affect the quality of collaboration and coproduction and vice versa.

1) Characteristics of Actors

There are three organizational or individual characteristics that affect collaborations within the networks. First is the level of resource dependency. In all four networks it is clear that Singapore's government agencies are very well funded. None of the public agencies needed to rely on VWOs or private sector for funding. On the other hand, some VWOs and community groups, especially those in NfVNS and CARE do rely on government funding for their operations. In CARE, the two VWOs heavily rely on NCSS for funding. They are compensated based on the Case Management Framework. Thus each ex-offender helped is translated into reimbursable expenditure by the NGO. Similarly, in NfVNS where the two main social service agencies - the Centre for Promoting Alternatives to Violence (PAVe) and the TRANS Center, which specializes in elder protection work – rely on MCYS for funding for each case they handle. NfVNS also includes the community-based Family Service Centers (FSCs) that are the nodes for help, counseling, casework intervention, financial assistance, and support groups for families. These centers are an arm of the government for they rely mostly on direct government funding. This dependency can impede these VWO members of the network to agree in expanding membership to other VWOs for fear that they will lose their funding. This dependency has also led some VWOs to expand their goals to accommodate government agency goals. One example is ISCOS in the CARE network. However, this dependency allows the government to ensure goals between partners are always aligned. In the case of REACH where private clinics are not reliant on government funding, it has been more difficult to get them on board in the network.

In the case of CIB, there were partners who were not dependent on government funding at all. Yet, they were fully supportive of the network goals as they were often already passionate about gardening and were more willing to fork out funding from their organizations or personal pockets. These gardening groups are truly coproducing with government because they are sharing the cost of production and also the direct consumers or beneficiaries of the gardens. Two gardens investigated actually generated earnings for the individual members of the garden groups. One company used gardening as part of their strategy to enhance work-

life balance and contributions back to the environment. Thus the company took out funding from their CSR program. Individuals who take part in the gardening program are also resource persons for NParks. Some have more expertise than NParks officials and they are often asked to give talks and conduct trainings, which they are happy to do. These cases show that as long as there is goal congruency, funding dependency does not matter.

Second characteristic of actors analysed is the level of goal congruence. As long as goals are congruent actors in the network are able to work together. Often goals are shaped along the way as members know each other better and can see how they can help each other achieve their goals. REACH for example is successful with schools because early detection of mental disorders in children also helps the schools to achieve their KPI of Desired Outcomes of Education which includes the ability to judge right from wrong (Ministry of Education, 2012). By working with schools, REACH also reaches widely to children in Singapore. As for CARE network, all the actors' goals were congruent because the network was setup only by the agencies that are involved in helping ex-offenders. It was not about reshaping each other's goals to align. In contrast, NRVNS's actors were quite diverse ranging from police, social workers, courts, hospitals, to VWOs. But throughout the years of working together, their goals have become congruent which is to help the victims and minimize domestic violence in Singapore. In addition, where there were gaps in the VWOs, the government stepped in to build capacity. An example was how MCYS strategically built counseling capacities for 40 social service organizations. These organizations now shoulder the burden with MCYS to provide counseling to families on domestic violence. Thus their goals naturally become aligned with government.

Third characteristic analysed is the existence of leaders or champions within the organization who are willing to collaborate. In CIB for example, aside from NParks' leading public manager who oversees the entire gardening network, there are a handful of private individuals who act as ambassadors for the cause. They hold the expertise and they volunteer their time to train others, which along the way helps to expand the network. NParks also has a passionate leader at the director level to drive the overall network. NRVNS makes the effort

to compliment officers who have successfully handled cases. This has helped built collective leadership on the ground among regional actors. CARE and NFVNS are both under the same ministry. The leadership within this ministry has evolved as they went through the experiences of the two networks. This openness to collaborate is probably uneven between other ministries and is uneven within NParks and MCYS as well. However, Singapore has the whole-of-government approach, where inter-agency coordination is emphasized and encouraged. Politicians were often the ones pushing agencies to collaborate more with the private and non-profit sectors. Case in point is NParks' CIB, which started only because a political leader asked NParks to rethink how they work and stop doing things top-down. In sum, leadership in networks can come from the highest level of government to the ground level of individual experts who are passionate. The champions can also emerge from clients who have successfully coproduced the service such as those who have overcome domestic violence problems.

2) Network Structure

The network structure is an important factor that determines actors' behavior, network processes and the quality collaboration and coproduction. We will focus on power relations, level of centralization, and level of density to explore the network structure. First, we found that networks that have clear KPIs set by the government or the network itself, such as CARE (ex. ex-offenders find a job within 6 months) will be more centralized. Indicators of network centralization include having a network secretariat, fixed network membership, closed meetings, and usually the network does not change much over time.

CARE has fixed actors in the network with predictable roles. VWOs are more or less service providers alongside the government agencies. Targeting only ex-offenders and their family, the network does not pan out because the relationship is quite tight between existing members. CARE monitors its KPIs through the Case Management approach since 2001. Learning from the CARE network, the NCSS issued guidelines in 2004 for case management for a variety of cases and not only for ex-offenders. The cases include multi-stressed families,

post suicide and crisis cases, family violence cases, youth-at-risk, people with disabilities, people with HIV/AIDS, and elderly with multiple needs. Coordinated and integrated services among many agencies and community groups are catered for clients' needs.

We consider this case management approach as a form of coproduction. There are five stages of the case management service. In the assessment stage the case manager together with the client analyses and prioritizes information to identify goals of the client. Clients have full freedom of choice and decision-making. The purpose is also to tap on clients' capacities and social networks. The case manager and the client would then make an Individual Care Plan (ICP) with close monitoring from case manager on the implementation. In this scenario, the case manager is not just a service provider but rather, he can play several direct and indirect roles at any one time. The direct roles are implementer, instructor, collaborator, processors, information specialist, and supporter. The indirect roles are broker, linkage, coordinator, case advocacy, social network builder, consultation provider.

This case management approach has implications for power relations between government agency and VWOs. It serves to enhance division of roles but also sets clear responsible parties for performance. When funding is not shared, such as in CARE and NRVNS it is inevitable that VWOs and community groups will feel inferior to government. However, if the VWOs have strong expertise, they can continue to be play equal roles in the partnership. This is the case of SACA in CARE and PAVE in NRVNS.

Although both use the case management approach, CARE works very tightly with its members through a very centralized and dense network as mentioned earlier while NRVNS works through a hybrid of a centralized sparse and a decentralized dense network. At the center of the NRVNS is the Family Violence Dialogue Group (FVDG) and it works closely with six satellite smaller regional networks. This structure, while highly adaptable to ground issues, has the possibility of causing confusion in roles and responsibilities. In our interviews, interviewees shared with us the early struggles network participants had in managing domestic violence cases due to confusion of roles. Thus, there was a need to guide the FVDG and the roles partners play through manuals and training sessions following the case management

approach. Compared to CARE, NFVNS has more organic growth in terms of collaboration. Also, there are no KPIs imposed on the partners in NFVNS. Despite this, services provided to victims of family violence has become more integrated e.g. personnel protection order, medical help, schooling for children, and shelter.

As for REACH, they work through a sparse but highly centralized network with the REACH team (medical and administrative staff) being the central member, possessing strong linkages with all members. While the schools interact with other members of REACH occasionally for certain cases, the bulk of the interaction on mental health issues of children are done with the REACH team. Through its helpline as well as periodic visits, REACH maintains contact with schools on a close basis. Upon activation of a case, REACH assesses the situation and makes the necessary arrangements with the other partners, be it case conferences, arranging for other partners to handle, or going down to the schools. REACH also organizes training for partners centrally to enhance their partners' knowledge of mental health as well as the processes of assessing a child's mental health. A ground manual was thus unnecessary as there were very clear ground rules and little confusion on the roles each of the partners play given the REACH team's high level of involvement. We can conclude that REACH is also quite centralized with various collaborations with partners at the peripherals.

In contrast to the above networks, CIB has no specific KPIs for the collaborators aside from maintaining and building new gardens. As mentioned in the previous section, most groups do not rely on the government for funding. Thus the relationship is more relational than contractual. The NParks officers in-charge of the gardens are often considered friends of the community members. They freely call each other on their mobiles during and outside of office hours. The intention of CIB from the start was to avoid a top-down approach to maintaining and growing urban garden spaces. Thus it was not necessary to have KPIs for partners. This has allowed CIB to grow organically to over 400 groups without force. This network is thus, very loose but yet very resilient. We predict that even if government steps back this network will survive and grow. This is because the network does not have a centralized member, relies

on co-funding by all organizational members, is voluntary, and driven by passionate volunteers who have other full-time jobs.

Second, the network structure depends also on the target client group. REACH works formally and closely with partners that join voluntarily, casting a wide net to detect its real target group i.e. mentally challenged children. In CIB, relationships are very informal with only verbal agreements between actors. They come with the aims of casting a wide net to change the public's value and behavior towards gardening. As for CARE its target group is very specific i.e. ex-offenders, thus the structure is tight. For NFVNS, it has both policy and operational goals. At the national-level it aims to cast a wide net. However, at the operational level, the net is specifically cast to victims of domestic violence. Thus they have a hybrid structure of being tight and loose at the same time, as explained previously.

Lastly, we observed that the longer the network has existed the more learning and double-loop learning can occur. Among the four networks, second order learning in REACH, the youngest network, was observed to be rather low. While school counsellors and social workers were trained by the REACH team on the science and processes of mental health, the knowledge gained was largely single looped. There was little indication of double looped learning at individual and collective levels with no indication of a change in the partners' goals or network structure through participation in the network. For NFVNS, CARE, and to a certain extent in CIB, there were several observations and reports of double looped learning.

3) Network Processes

Communication processes within the network also influence other factors in the network. Each of the four networks has slightly differing processes for communication and decision-making. Ranking from most centralized to least would be REACH, NFVNS, CARE, and CIB in that order. This not only reflects how long the network has existed but it also reflects the network structure and actors' characteristics mentioned above. All four networks have formal meeting opportunities with partners. CARE and NFVNS have two levels of meetings, at the directorial and the operational level. These meetings serve as channels to bring up operational issues

from the ground to the policy level. It also serves for the policy level to be translated down to the operational level. Networks that are less formal will find it easier to communicate when immediate action is needed. People simply call or email and they can expect to solve the problem right away.

We found that phone calls and emails can only be successful if rapport has already been built among actors. Thus it is important to start with face-to-face dialogues. As one network member of NVFNS said, “We should start with drinking coffee”. Contrasted to other networks, while the working relationships between REACH members have been cordial, it has not turned into a close relationship. The main way of contact is mainly through phone and emails with occasional visits to schools. Members of REACH do not meet up regularly with everyone in the same room (i.e. GPs, schools, VWOs, REACH team). This could be due to how the collaborative network is structured and the nature of its work. Thus, the amount of social capital is also limited. In sum, networks that have less overall centrality tend to be able to create more social capital among partners.

Lastly, some networks have worked hard to develop ground rules in the form of manuals for partners as mentioned. The existence of manuals helped in providing basic understanding of standard-operating procedures. Less complex networks, however, rely more on personal relationships and trust. Very organic networks like CIB have no manuals at all. This is related to the issue of organizational characteristics and the power relations between the government agency and the NGO mentioned above.

IMPLICATION FOR PRACTICE

Critiques say Singapore’s government is so strong that civil societies have not truly flourished. In order to compensate for the lack of strong civil societies the government has set up opportunities to strengthen existing organizations by incorporating them into its umbrella of social welfare organizations. The government also strategically provides limited amount of funding to these organizations hoping that they are not solely reliant on government resources. This has proven to be difficult for the VWOs because it is not easy to fund raise in Singapore,

where most people see that the government is already providing most of the social services. The four networks tell us that Singapore's government is cautious of being too top-down and are looking for innovations from the ground-up. All four networks are government led and serve primarily as platforms to coordinate and align services among different agencies. Through the process of collaboration with other actors such as schools, hospitals, community groups and coproduction with individuals who are experts in the field, the government agencies learn and discover adaptive ways to provide public services. The learning processes within the four networks also help government agencies to shape its policy preferences that are aligned with stakeholders of the policy.

The Singapore's cases illustrates that practitioners do and can talk about collaboration, coproduction, and networks as managerial processes without stressing the normative implications related to public participation, empowerment, rights, citizenry, legitimacy and democracy. It is worth noting that there are other VWOs outside of government-led networks. But we could not find strong networks that did not have government presence. Ultimately Singapore government needs to ask whether they are supporting the networks to enhance only managerial effectiveness and provide better services - policy results or is there a higher aim to develop the people's political consciousness - civic results (Bourgon, 2011). If it is the former, then Singapore is probably one of the best role model for government-led networks. Singapore does not show any shirking of accountability towards policy results as suggested by some literature on the downside of coproduction. If it is the latter, then processes, structures, and actors of networks will have to be designed very differently. Government will have to step back and allow NGOs to truly flourish.

Singapore's model is useful for countries that have limited number of civil societies where governments wish to be more adaptive and fluid by working in networks rather than bureaucracies. By carefully managing relationships with key NGOs and individuals, governments can smartly steer policies and responsively serve its people. Singapore's case demonstrates that network managers should learn to incorporate sets of relationships – collaborations and coproduction – into the design of the networks; learn to manage horizontally

and not top-down; embrace ground-up innovations; aim to empower partners; and learn to communicate at all levels of the network.

IMPLICATION FOR THEORY

Empirically we have found that all four networks are made up of relationships between organizations and individuals. All four have coproduction schemes with either clients or stakeholders. Thus it is important to investigate collaboration and coproduction in the context of networks. And it is equally important to investigate network's components of coproduction and collaborations. How do types of coproduction and collaboration affect various dimensions of the network (actor behavior, structure, process) and vice versa?

An analysis of the factors of coproduction without analyzing network variables would lead to a reductionist form of understanding. Coproduction, as observed in the four case studies, requires trust between co-producers. But trust itself also requires sustainable network structures and processes that take into account the stakeholders' characteristics. While not denying that coproduction works better if third sector organizations exist (Brandesen and Pestoff, 2006), but we also acknowledge that it is important to understand how the coproduction process is positioned in a network. Merely the existence of the third sector is not enough. We also cannot simply accept that coproduction works in some sectors while languish in others (e.g. Pestoff, 2009). If we want to understand co-production for various purposes (e.g. to start, grow, or maintain it), it needs to be understood at a deeper structural level. This paper aims to kick-start this process.

Lastly, this study is based on four networks in Singapore. The framework can be adapted to study networks, collaboration, and coproduction in other countries. This would enable us to build better theories on the types of desirable relationships in networks. Large-scale quantitative studies might help unveil correlations between the all the variables. These are topics for future studies.

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Diagram 1: The Coproduction-oriented Collaborations Matrix

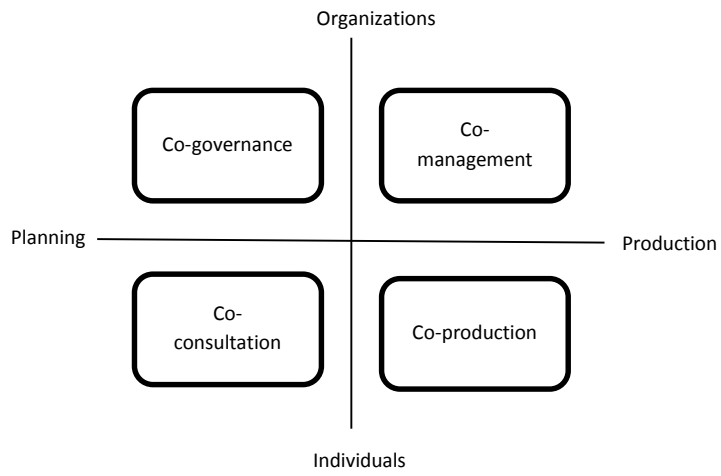


Diagram 2: Framework for Network Analysis

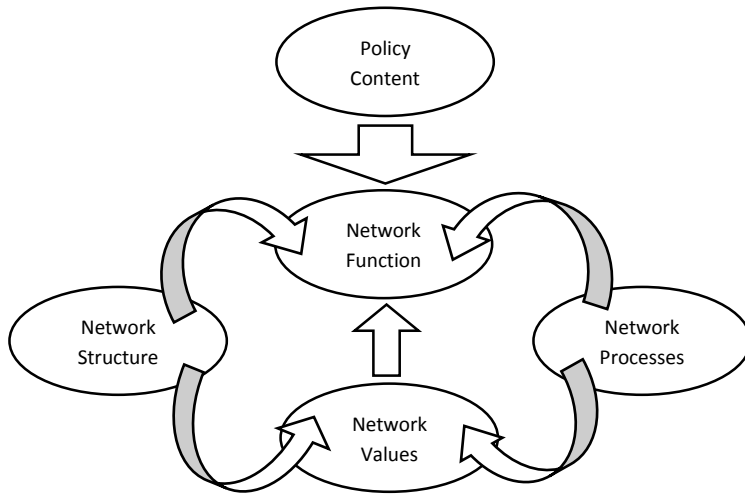
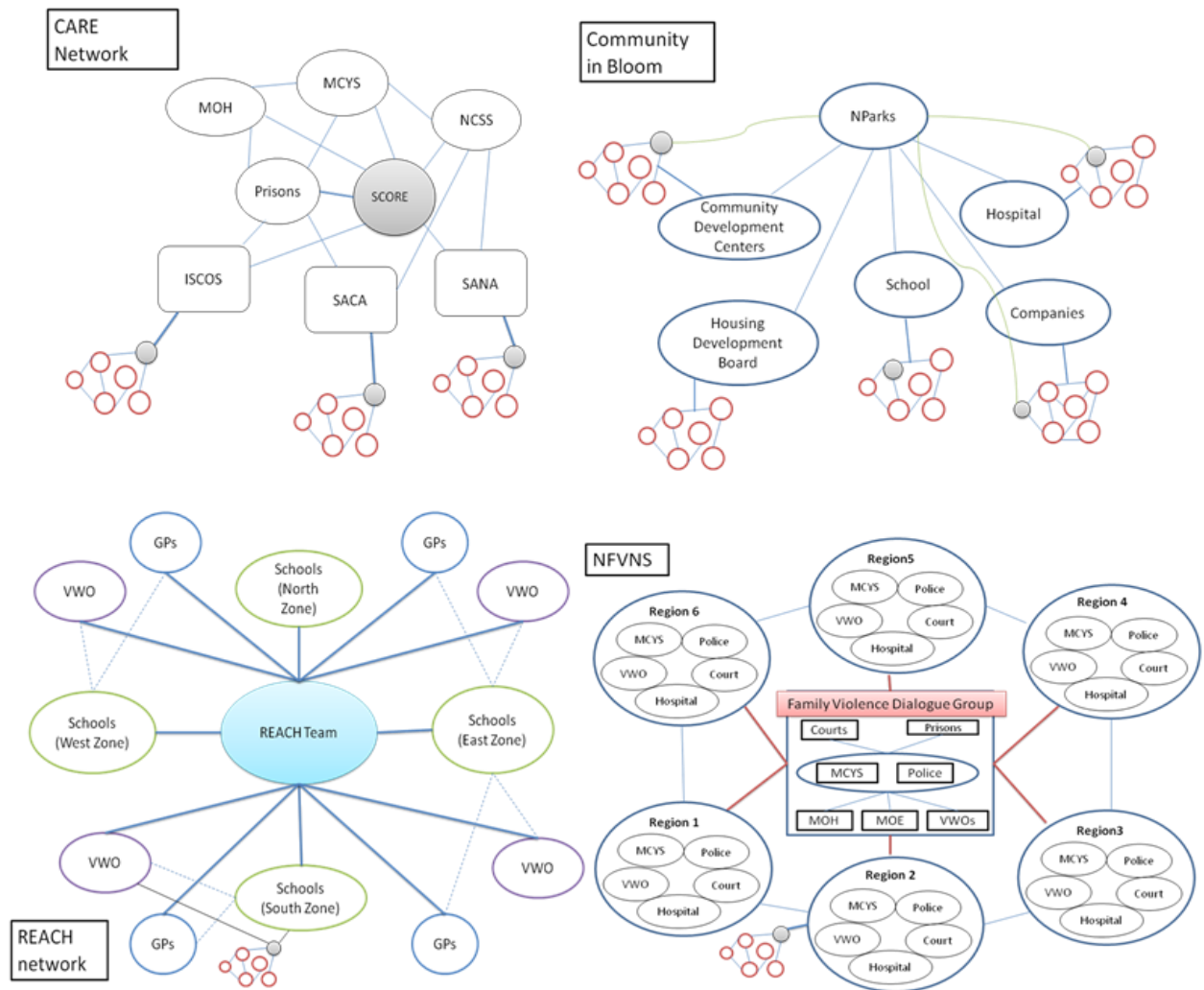


Table 1: Descriptive Comparison of the Networks

	NFVNS	CARE	CIB	REACH
Year started	1996	2000	2005	2007
Objectives	Help victims of family violence	Help ex-offenders to reintegrate	Build gardening groups	Help children with behaviour disorders
Actors	organizations, communities, individuals	organizations, communities, individuals	organizations, communities, individuals	organizations, communities, individuals
Funding from government	Funding for each case comes from MCYS (75%)	Funding for each case comes from Prisons (50%), NCSS (20%), SCORE (20%)	NParks facilitates information sharing and provides minimal funding to citizen groups	Funding provided to VWOs and schools but not clinics
KPIs	Case management framework	Case management framework	Number of garden groups + qualitative indicators	Quantity and quality of cases consulted as well as satisfaction levels of partners
Learning	Learning + policy change	Learning + policy change	Learning by all actors	Learning by VWOs and Schools
Outcomes	Policy change, implementation improved, public value change	Policy change, implementation improved, public value change	Public value change	Implementation improved, public value slowly changing

Diagram 3: Structures of the four networks



ⁱ Some scholars might argue that we can also categorize co-consultation as a process to co-produce plans. But we would like to separate clearly between the process to make a plan and the actual process to implement a plan (or program).

ⁱⁱ The 24 networks are Community Safety and Security Programme; REACH network; CARE Network; Eastern Health Alliance; Healthier Food Programme; Goodlife! Centre; Singapore Programme for Integrated Care for the Elderly (SPICE); Stray cat sterilization programme; Enhanced Step-up; Central Youth Guidance Office (CYGO); General Practitioner Empowerment Programme; Singapore National Asthma Programme; National Health Group Partners Shared Care Programmes; MHA community engagement programme; BCA Zero Energy Building; Agri-Business Cluster; AVA Import Control and Border Inspections; Nparks: Remaking our heartland (Yishun Town); Community in Bloom (CIB); SIIA Haze Issue; Dads for Life Programme; National Family Violence Networking System; Campaign Against Dengue; and Zero Energy Building.

ⁱⁱⁱ The questions in the simple online survey were: What are your main objectives in joining or forming the collaboration?; How much time do you commit to your network?; What do you or your organization provide for the

collaboration?; Rate from 1-5 how much your organization's mission is dependent on what the collaborators do; Please list the names of your collaborators in the network; How close are you to them?; Who takes the lead in the network?

^{iv} MCYS has been restructured into two ministries, namely Ministry of Social and Family Development (MSF) and Ministry of Culture, Community and Youth (MCCY) in November 2012. We will retain the term MCYS for easy reference and accurate representation.