KNOWLEDGE BRIEF

Systems Change

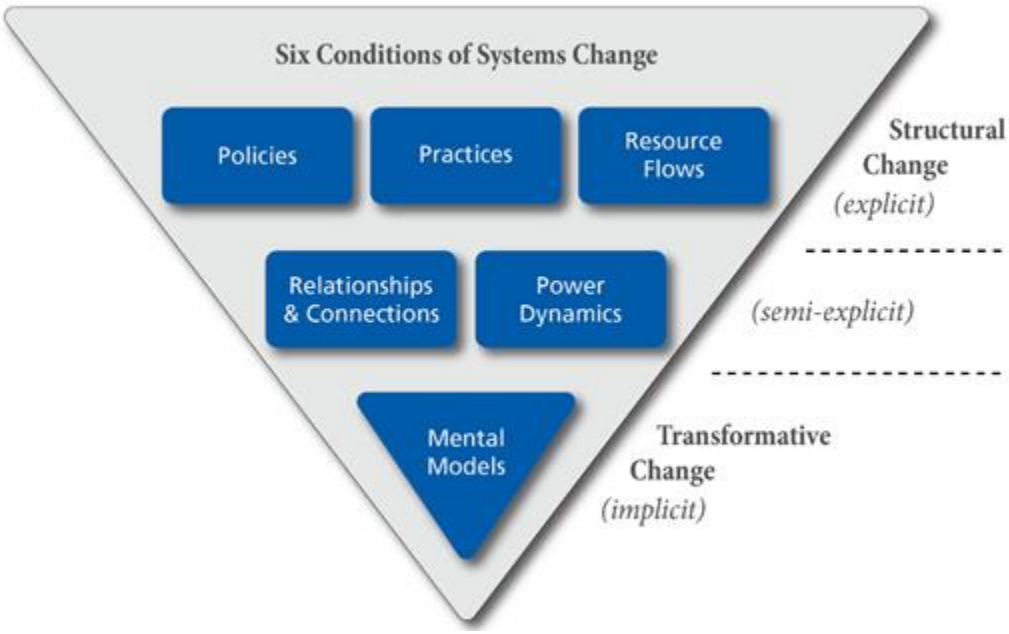
This knowledge brief will identify systems change and the conditions that hold a system in place. How system's change has taken up in the food system will be identified along with the implications systems change has on public health.

"To promote long term systems change organizations must recognize the "water" they are swimming (Kania et al., 2018). This encompasses the ability to look at the many parts and layers of the system and how they influence the issue whose structure they are aiming to alter (Kania et al., 2019). These structures hold the issue in place and must be shifted to achieve a sustainable result (Kania et al., 2018).

What does literature include about this theory?

Systems change is "an intentional process designed to alter the status quo by shifting and realigning the form and function of a targeted system" (Foster-Fisherman, Nowell, & Yang, 2007, p. 197). Systems themselves are described as "inanimate entities" (Kendrick, Jones, Bezanson, & Petty, 2006, p. 6) in which people move in and but can also alter if they wish too. Systems themselves are complex and involve systems and subsystems which are all connected (Kendrick et al., 2006).

A parable can be used to describe the work of systems change: Two fish swim past each other and one asks the second: How is the water? The second fish looks at the first fish and asks: What is water? (Kania, Kramer, & Senge, 2018). To promote long term systems change organizations must recognize the "water" they are swimming (Kania et al., 2018). This encompasses the ability to look at the many parts and layers of the system and how they influence the issue whose structure they are aiming to alter (Kania et al., 2019). These structures hold the issue in place and must be shifted to achieve a sustainable result (Kania et al., 2018). In the "Water of Systems Change" by Kania et al. (2018) these structures are described as conditions of systems change and are shown in relation to one another in the diagram below:



(Kania et al., 2018)

Systems change efforts are most effective when actors work on all three levels (Kania et al., 2018). The explicit level (structural change) can influence the large picture, while the semi-explicit level concerns itself rather with internal relationships between people (Kania et al., 2018). The goal of the semi explicit level is to bring people together and to strengthen collective action (Kania et al., 2018). The implicit level focuses on the mental models as they shape and guide the approaches that influence the other levels ((Kania et al., 2018; Foster-Fisherman et al., 2007).

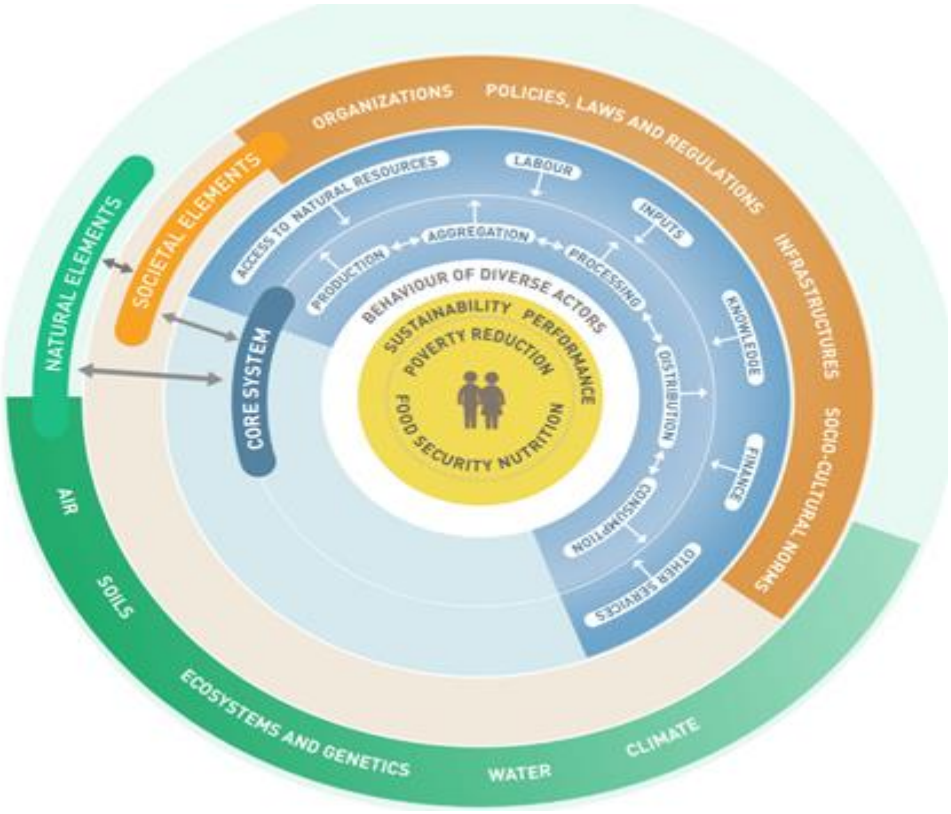
External dynamics (ex. external policies, public perception) need to be considered as well as internal dynamics (ex. organizational policies and power dynamics), as they may constrain the ability to promote change (Kania et al., 2018; Foster-Fisherman, 2007). Often change efforts focus only on specific components of the system such as policies only (Foster-Fisherman et al., 2007). This is not as effective as focusing on multiple components of systems change, as many interdependent parts shape a system (Foster-Fisherman et al., 2007). A systems change approach must also look at the "values, attitudes and beliefs" (Senge et al., 2015, p.8) as these form the backbone of the whole system.

How has it taken up in the "food" movement?

The research revealed the recurring theme of a systems approach to promote change in a food system (Neff, Merrigan, & Wallinga, 2009; Neff, Palmer, McKenzie, & Lawrence, 2015; FAO, 2018). Systems change is reflected in the conceptual framework that is a food systems approach or FSA (van Berkum, Dengerink, & Ruben, 2018). It focuses on the relationships existing between the elements of the food system and the outcomes of these relationships (van Berkum, et al., 2018). It aims to focus on activities that create sustainable solutions strategies for food-related issues and concerns (van Berkum et al., 2018). A food systems approach focuses on "multilevel strategies" (Neff et al., 2009, p. 297) to influence health risks and disparities in a food system.

A systems approach recognizes that the food system is not static and is therefore always open to new ideas and strategies (Neff et al., 2015). It also embraces the complexity of the food system and encourages interdisciplinary collaboration to create effective responses (Neff et al., 2015). The Food and Agricultural Organization of the United Nations FAO (2018) recommends a holistic approach that considers the totality of the food systems and the many elements and relationships that are part of it. Interventions are often focussed too much on one sector and do not incorporate the whole picture. The FAO (2018) presents the food system wheel framework which contains poverty reduction, food security, and nutrition. These, in turn, are embedded into large systems which shape their outcomes (FAO, 2018)

Food systems are complex in nature and consist of many interrelated components such as production, processing, accessing, consumption and disposal (Neff et al., 2009). It is, therefore, a system that consists of internal and external levels (Kania et al., 2018) or informal and formal components (Senge et al., 2015). Neff et al. (2009) describe the internal levels as the individual level which encompasses knowledge and behavior, but also culture and time.



(FAO, 2018)

How does it impact public health?

The complexity of public health and other health care systems, with its categories and subcategories, suggests the incorporation of systems thinking to address internal and external concerns (Sims & Aboelata, 2019; Leischow et al., 2007). Health care workers are increasingly coming to the conclusion that people make their health choices "not in a vacuum, but based on the social, physical and economic environments surrounding them and the resources available to them" (Sims & Aboelata, 2019, p. 476). Systems thinking in this regard can assist in developing strategies for health care interventions. Sims and Aboelata (2019) present a Systems of Prevention framework which makes recommendations to address the multiple relationships that exist in already established systems and how these can be redesigned to provide improved health outcomes. The elements of this system include (Sims & Aboelata, 2019, p. 477-470):

- Develop a shared vision
- Engage in multilevel action
- Elevate community voices and leadership
- Community partnerships
- Prevention and equity
- Gathering and sharing of data

The ultimate focus in this is on primary prevention that fosters an upstream approach to create long term and sustainable public health systems (Sims & Aboelata, 2019).

Yu (2020) describes the BUILD Health Challenge systems change understanding for public health, this includes components such as enhanced knowledge, strengthening relationships, and organizational capacity which can result in systems change that includes transformative norms, organizational shifts, re-allocation of funding streams and implementation of supportive regulatory bodies (Yu, 2020, p. 196).

Neff et al. (2015) suggest that public health sectors and the agricultural sector mostly still operate separately from each other. However, spaces should be created that allow the collaboration of both sectors due to both aspects being linked closely to health (Neff et al., 2015). This transformative process may cause initial discomfort, however through time, both sides may have the capacity to create effective collaborative relationships (Neff et al., 2015).

Implications of the theory on the work of the KFPC?

Looking at the KFPC visions statement the organization is considering its ability for impact on multiple levels which aligns with systems change. The KFPC has outlined its vision and strategies specifically to explain their work which reflect the procedures and guidelines part of the explicit level in systems change (Kania et al., 2018). Moving to the semi explicit level, the organization aims to bring multiple players in Kamloops together to share and transfer knowledge of diverse practices. This directly translates into the mental models part of the implicit level (Kania et al., 2018) as the policy council intends to act as a hub to connect multiple views and give everyone a chance to voice their ideas in a respectful and open minded environment. This system's approach therefore is reflected in the vision statements and the goals of the KFPC as it considers all players in the system and understands the importance of impact on multiple levels to achieve their vision of a just and sustainable food system.

A gap identified in communication with the social work student surrounding the value statement: “Alleviation of poverty: equitable access to healthy, culturally appropriate food”, is that most agencies and service providers have a downstream, emergency focussed approach. Meaning that concerns are addressed as they happen, rather than being prevented and thinking long term which would be the case with an upstream approach. Incorporation of an upstream approach instead of a downstream approach connects with systems change (systems thinking) (Kania et al., 2018). Systems thinking encourages an organization to look at the multiple layers and levels of a system which hold the issue in place. Sustainability can only be achieved if action occurs on multiple layers that hold the problem in place, not only on one layer as this will not lead to successful solutions for the community. Systems change is useful because it looks at the problem itself, but also considers the skills and internal abilities of the organization and how these positively and negatively impact the problem.

The KFPC consists of a collaborative leadership structure distributed between three individuals. A distribution of leadership allows each person to bring their strengths to the position and guide collective decision-making processes. In systems change a good system leader has certain characteristics such as being able to self reflect on one’s own values, asking questions continuously and fostering collective action (Senge et al., 2015). Part of being the leader in a system is to recognize that the organization is a component of the system as well, awareness of this is necessary to foster change. Good leaders learn on the job, via constant reflection and are open to other opinions and approaches which enhance their own way of thinking (Senge et al., 2015).

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