

**National Alliance for Physician Competence**

# **Discovery Workshop**

**Applying Complexity Science to Organizational Design in Multistakeholder Systems**

## Discovery Workshop Summary

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# Overview

## Objectives

At the PAPC IV summit in January 2007 attendees expressed interest in exploring different organizational models for a National Alliance for Physician Competence. On August 27-29, 2007, InnovationLabs convened a Discovery Workshop in Chicago, IL. The purpose of this workshop was to learn, and apply, concepts of complexity science to the design of multi-stakeholder systems. InnovationLabs invited six “catalysts” to present research and experiences from fields as diverse as complexity science, network theory, and non-profit scaling models. As a methodology for participants to internalize this information they were challenged to use these new concepts to craft visions for the Alliance, its structure, its functions and its development path. The conversations that took place at this workshop will serve as input for the upcoming Summit in Dallas on December 5-7, 2007.

This document provides a high level summary of the key concepts from the catalysts and the implications for the formation of an Alliance for Physician Competence.

# Key Principles

These are the key principles garnered from the presentations by the ‘catalysts.’

## **Resilience**

One of the ways scientists determine if an eco-system is viable is by how well it responds to different extremes in its environment. Viable systems are more resilient when they are able to withstand and adapt to changing conditions in their environment.

## **Diversity**

One of the characteristics of viable, resilient eco-systems is diversity. Diversity plays a significant role in the survival of species. The more homogenous a species is the harder it is for that species to survive over the long term. Research into natural systems shows diversity as a critical component in allowing collectives to solve complex problems.

Research into human systems and concepts like the “Wisdom of Crowds” shows diversity plays a critical role in determining whether a ‘crowd’ can make better decisions than an ‘expert.’

## **Coopetition**

Research into complex adaptive systems shows that some competition is necessary and an important part of a viable eco-system. Human systems can both compete and cooperate at the same time. Technology firms often share research and patents while at the same time they compete for customer business. This type of interaction has been called coopetition.

## Parcellation Speeds Evolution

If you want species in ecosystems to evolve faster, one way is through isolation, or parcellation (turning a landscape into parcels). Imagine that sea level rises and the Florida peninsula becomes a chain of islands. Now species can't easily migrate from one place to another. Larger animals will become extinct and leave niches or evolve to smaller sizes. New niches will be created at the fringes in the places where there once was no water. If you want your system to develop more diversity at any time, allow for some isolation and don't make all of the working groups look like one another in terms of resources, abilities, patterns of thought and so on. After the diverse ideas have been generated, it may be time to "lower the water level" to allow mixing of the ideas to see which ones emerge.

## Creative Destruction

Creative destruction helps systems adapt. It turns out that largest companies (with a few exceptions) are not the best performers because they cannot adapt (there is no Creative Destruction). Any system has to creatively destroy part of itself in order to keep alive and evolving. Capitalism is like that. Different types of structures have different reproducibility – so pick your battles against structure wisely. Don't focus on structures in the system you can't change. Don't focus on structures that don't influence the outcomes.

## Emergence

Emergence is a regular phenomenon in complex adaptive systems (CAS). A CAS consists of a large number of interacting individuals, called agents, that adapt or learn as they interact. Emergence arises through the interaction of agents and is not a simple sum of their behavior. The emergent behavior is often not a behavior that is inherent in the agents.

## Start Where You Are

The theory of Positive Deviance provides a way of making large system changes by starting with people in the system that are already practicing behaviors similar to the new behaviors you want the overall system to imbibe. The idea is to show how these people

are being successful and then have these people become advocates for making the changes required. In this way other people in the system will be more receptive to these 'new' ideas and practices.

## **Rules in Ecosystems**

As an ecosystem gets older there is no more room for more restrictions. At a certain point you would break the system if you put in a bunch more rules. Think of what would happen if you added more and more rules to a chess game? At some point it would be unplayable.

## **Portfolio of Projects**

Some organizations have largely rejected the concept of an organization chart. Instead they think of themselves as a portfolio of projects. This might be a good model for the Alliance. Why expend all of your energy creating an organization and marketing materials, etc. when you should be spending that energy on creating physician competence?

## **Reduce Complexity by Increasing Complexity**

The best strategy to reduce the complexity for consumers (in this case physicians) is to increase the complexity of the overall system. We are increasing the overall complexity of the system because we are increasing the inter-connectivity and information flows between the nodes and the networks in the system. Increasing the connectivity in a network improves it's ability to adapt. In addition to the structure, look carefully at the processes that are used to help the networks interact with each other. Help them have different kinds of conversations. You can use techniques like open space, positive deviance, appreciative inquiry, improvisation, conversation café, and small-group discussions.

## **Product vs Process**

Focus on process not product in times of fast change – a good process will never become obsolete, where product (or specific rules) will always become obsolete.

# Implications for the Alliance

The participant conversations applying the principles and concepts presented by the catalysts coalesced around the following ideas:

## Structure

Continue as an informal coalition of groups coming together around a common goal. Do not push the group forward in a way that is out of sync with its natural development or too fast to adapt to. Continue to have the structure be based on the relationships between the individuals and the organizations involved.

Resist having a formal set of rules of engagement or a formal membership process. The caveat is that the people and organizations involved will provide money to be used to continue evolving in this fashion until the Alliance is formalized enough to form a 501c3.

*“Relationships will be based on personal commitments rather than contracts. Your network will be a heterarchy, not a hierarchy – you need to be able to work across the organization or network. The organization will tend to be self-organized. The best strategy for organizing the National Alliance is to let it happen – you cannot predict the environment well enough to construct an organizational model that will be foolproof.”*

## Guidance

Put together an interim management committee (or steering committee). Develop some kind of memorandum of understanding which describes the positioning and funding requirements for continuing the evolution of the Alliance in this fashion. Develop a document to serve as the ‘institutional memory’ explaining the evolution to this point and the rationale behind the decisions that have been made. Develop a revised funding proposal to be distributed to all organization that have contributed to this endeavor so far.

## **Operations**

Part of the funding proposal would be to allow the Alliance to continue incubate at the Federation of State Medical Boards until a more formal organization is formed. The money 'contributed' by participating organizations would be used to pay the salaries for staff support to focus on the business of the Alliance.

## **Summits**

The work of the Alliance is to provide a forum for the continuation of the discussions begun in the Summits. There is an interest in engaging a wider audience in the Summit process. There is also an interest in continuing to explore the intersections and interfaces between organizations along the continuum of education, training, certification, licensure and maintenance of competence.

## **Good Medical Practice - USA**

Publish and distribute version 1.0 of the Good Medical Practice Document for feedback. Continue the conversation around the assessment of competence and the sharing of data across the many organizations involved in medicine.