

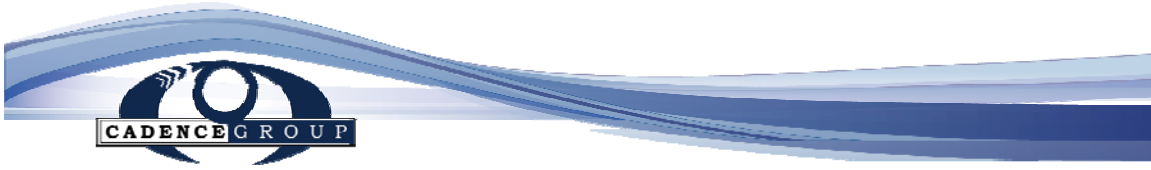
## **Envisioning a Future for Public Health Knowledge Management**

By Cadence Group

Public health today faces challenges and opportunities of a degree that it has never seen before. Never before have methods for gathering data been so advanced, the amounts of data gathered been so huge, and the transfer of information been so rapid. As a result, in order to be successful, today's public health organizations at all levels have to meet an ever-growing set of standards. They must be flexible and fast, and able to easily share new scientific findings and program strategy. They must deal with a rapidly evolving body of knowledge, and simultaneously engage and support multiple programs of public health practice. In the midst of all of this, it is also crucial to keep in sight public health's perennial end goal of impacting communities and people in positive ways. To ensure success, the systems, platforms, processes, and programs must be properly aligned to respond in a timely fashion, as time is of the essence in public health matters. They must also keep workers, collaborators and partners empowered with the know-how needed to effectively deliver public health outcomes. What is required to accomplish this is a secure but accessible, enterprise-wide information storage, search, discovery and delivery capacity. These are often called knowledge management (KM) systems.

### **What is knowledge management?**

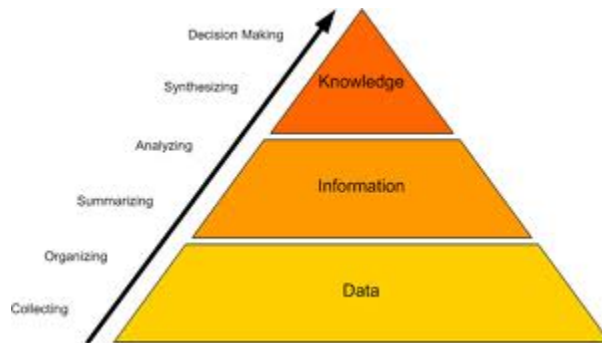
Knowledge Management (KM) is a concept and a term that arose roughly in the early 1990's. Unfortunately, there is no universal definition of knowledge management, just as there is no agreement as to what constitutes knowledge in the first place. For this reason, it's best to think of KM in the broadest context. Basically, KM is the process through which organizations define actions and generate benefits from their data, research findings, information, intellectual



property, and knowledge-based assets. Most often, generating value from such assets involves codifying what employees, partners and customers know and then sharing that information among employees, departments and other organizations in an effort to devise and share knowledge rapidly and broadly. It is important to note that the definition says nothing about technology. While KM is often facilitated by IT, technological infrastructure by itself is not KM.

The knowledge management definition used by Cadence Group is simply “getting the right knowledge to the right person, via the most ideal device for the point in time.” This concept in itself may not seem so complex, but it depends on thoroughly understanding an organization’s mission and strategy, understanding where and in what forms knowledge exists, creating processes that span organizational boundaries and functions, and ensuring that initiatives are supported by organizational leadership. Knowledge management may include new knowledge creation, or it may solely focus on the capture, storage, refinement and use of already existing knowledge.

The diagram below depicts, at a very high level, a knowledge management system and the strategy needed to design and implement it as a holistic endeavor. This involves the planned integration of personnel, the content development processes, and the enabling of technology by which information is generated, collected, organized, summarized, analyzed, synthesized and used to support decision making and mission-critical activities. The development of an organizational taxonomy and information architecture is a critical first step. Successful KM organizations institutionalize the strategy so that it becomes second nature and is seen as a fundamental part of the culture of that organization.

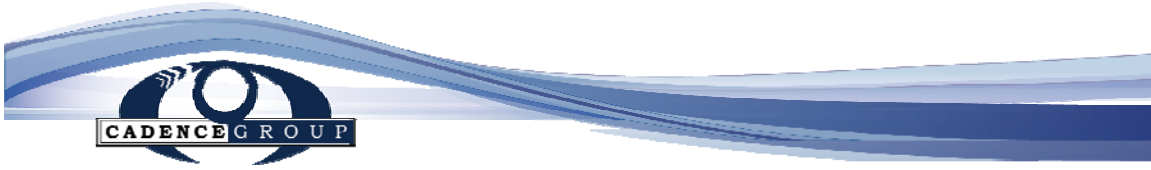


**Figure 1**  
Knowledge Management to be needed in online education  
HUI King-Chung, Ziggy  
[http://www.uqc.edu.hk/tlqpr01/site/abstracts/098\\_hui.htm](http://www.uqc.edu.hk/tlqpr01/site/abstracts/098_hui.htm)

In general, intellectual and knowledge-based data and information assets fall into one of two categories: explicit or tacit. Included among the former are assets such as patents, trademarks, business plans, marketing research and customer lists. As a general rule of thumb, explicit knowledge consists of anything that can be documented, archived and codified, often with the help of IT.

Much harder to grasp is the concept of tacit knowledge or the know-how contained in people's heads. The challenge inherent with tacit knowledge is figuring out how to recognize, capture, share and manage it. While IT – in the form of e-mail, groupware, instant messaging and related technologies – can help facilitate the dissemination of tacit knowledge, simply identifying tacit knowledge is a major hurdle for most organizations.

Organizations often struggle to appreciate and leverage the internal fabric of corporate insight and knowledge. It is difficult to identify and place a value on what employees collectively know; yet that core base of knowledge is vitally important to every organization. Beginning in the 1990's, the practice of knowledge management emerged to address this challenge. For organizations,



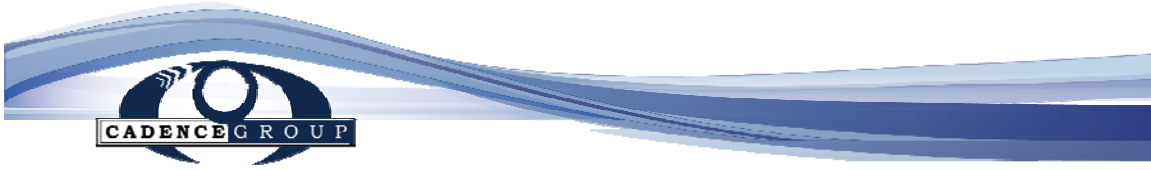
the notion of intellectual capital was the catalyst that led to new processes that looked at knowledge as a commodity that could be accumulated, assigned value, and considered an asset that could produce a return-on-investment.

Knowledge management efforts typically focus on organizational objectives such as improved performance, competitive advantage, innovation, sharing of lessons learned, integration and collaboration, and continuous improvement. KM efforts overlap with organizational learning, and may be distinguished from this function by the greater focus on the management of knowledge as a strategic asset and a focus on encouraging the sharing of knowledge.

By its nature, knowledge management chases a moving target. Most aspects of knowledge are constantly evolving, as are the formats, devices and tools that support capturing, storing, retrieving and sharing it. Also subject to change are the operating environment and the competitive context in which any large complex enterprise, such as public health, operates. Thus knowledge management systems have and will continue to evolve along all of these dimensions. As a result, plans for such programs must place a premium on flexibility and build a sustainable governance model that effectively addresses content and technology obsolescence.

### **Knowledge Management and the Public Health System**

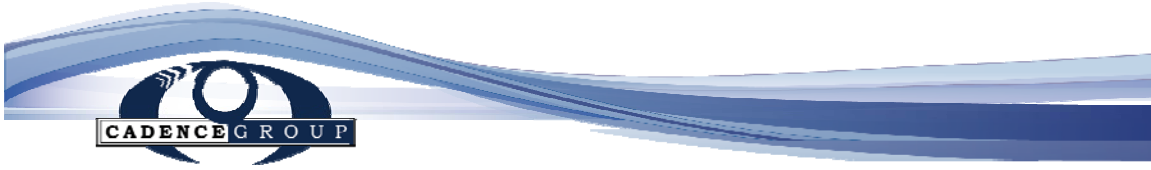
Knowledge management, as a formal discipline and strategy, is still in a relatively embryonic stage in the public health and human service non-profit sector. There are few “chief knowledge officers” in these organizations, and knowledge management investments and staffing are not common line items in most budgets. Few of these organizations have successfully implemented an enterprise-wide knowledge management program. But in its work, Cadence Group has seen that most governmental public health and human service sector non-profits would be benefit from the strategy, processes, and technology of a



sustainable KM program. These organizations do not manufacture products, sell services or build financial wealth. Rather, they are devoted to a particular mission or cause. They strive for improved individual or community health outcomes, behavioral and social change or empowerment— and their fundamental asset is knowledge. Across this landscape of organizations, their “knowledge workers”, always on the front lines of this important work, need just-in-time, fingertip access to the data, information, knowledge and know-how to do their jobs.

What makes most governmental public health and human service sector non-profits such an ideal environment for the pursuit of knowledge management strategies and implementation? There are several explanations:

- These organizations are not only focused on awarding grants and designing and implementing programs. They also have the scientific knowledge of how to determine the best recipient use of these funds.
- These organizations accelerate an idea, innovation or “best practice” to greater impact by increasing its reach through technical assistance, training and the broad sharing of data and information through increasingly sophisticated technical approaches.
- These organizations are dedicated to a common goal or mission and already have the need and commitment to collaboration to achieve it.
- For public health organizations especially, speedy transformation of data into public knowledge that can be acted upon is crucial to fulfilling its mission. The most efficient way to quickly disseminate this knowledge to the public is to already have a system set up in the background running like a well-oiled machine.
- It appears that the public health sector is already thinking in terms of knowledge management. More and more organizations are making



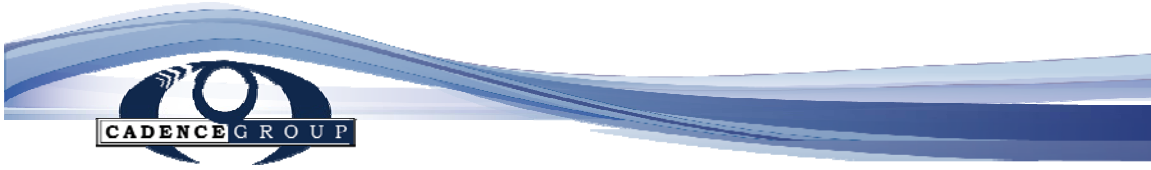
information available on websites and portals or capturing their intellectual capital in databases.

- Many of these organizations have much if not all of the technical infrastructure, software and tools needed to support ePublic Health and a KM initiative.

Why, then, have many of these organizations failed to lead the knowledge management revolution? Why have so few organizations taken the formal and disciplined approach to KM systems development that is evidenced in leading commercial entities? Our experience and the literature suggest that there are a variety of reasons:

- When resources are hard to come by, there is reluctance to reassign monies to support and fund the accompanying skills and infrastructure that are required.
- Public health leadership may not yet embrace the advantages and the mission-critical nature of KM and thus has not made it a priority.
- Organizational, cultural and procedural barriers must be overcome to make KM possible in the public health system.
- In for-profit organizations, KM is aligned with performance and process improvement and can be measured with financial results reporting. In the public health and not-for-profit sector, there are neither clear nor consistent measurements for accountability nor methods for reporting the value KM is adding for partners and stakeholders.

There are a number of current and promising trends that could promote the switch to a more broad-based systematic implementation of knowledge management practices within public health organizations. In addition to the younger minds eager to make their stamp on the practice of public health by adapting existing and emerging business/IT tools and philosophies for social



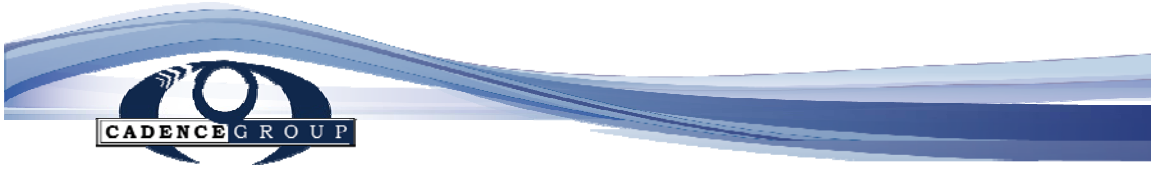
innovation, there are also members of the “older generation” who have the vision and desire to “pay it forward”. It is natural for them to desire to translate their valuable scientific knowledge, program experience and acumen in meaningful ways. Additionally, the advent and pervasive nature of social media and smart devices makes the world less segmented and more accessible. Add to that the availability of open-source and low cost information technology, and the notion that a KM solution is only for those with deep pockets is greatly diminished.

### **A Case Study: Designing a Knowledge Management System for the Human Service Sector**

Cadence Group was retained by a national human service organization to develop a comprehensive knowledge management strategy for a parent organization and its affiliates. Cadence Group utilized a range of information gathering and analytical methods to accomplish the goals of this project.

Cadence Group conducted an extensive evaluation and analysis of the organizational vision and mission as well as its data and information, knowledge creation processes, data storage, data retrieval, data utilization, management practices and processes, and technology assets across the entity and its subsidiary organizations. During the course of our information gathering efforts, Cadence Group consultants examined organizational documents and charts, reviewed the current websites and products, and evaluated member information collected in various surveys conducted over the past few years.

We also solicited a wide range of employee input, via one-on-one, in-person or phone interviews, from all levels and professional disciplines within the organization; and from a select group of members and board members. In using this approach, Cadence Group hoped to get a sense of the leadership’s KM expectations and gain a broad perspective of how this initiative could fit into its core human services mission.



Additional activities were conducted to identify best practices by benchmarking various non-profit organizations, attending specific meetings and conferences, searching the relevant human services and KM literature, and talking to subject matter experts to determine core KM functions.

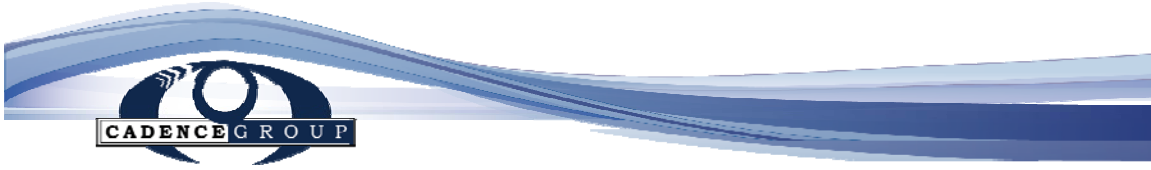
A unique component of our Cadence Group strategy utilized existing organizational information inputs to answer a series of questions embodied in a KM maturity model. This analytical technique, when populated with data from our findings presented a graphic depiction of the organizations' readiness to embark on a KM project. It also pointed to areas of strength and weakness for use in developing our KM system plan, and the ability to monitor and measure progress toward accomplishing our KM objectives.

As a result of the information gathering, analysis, and assessment activities, Cadence Group presented four plausible information architectural models for structuring a knowledge management system with capture, manage and deliver elements that aligned with organizational resources and financial capacity; and delivered a KM roadmap with specific, concrete steps for implementation, expansion, support, and institutionalization of the KM initiative.

The member organizations of this entity benefits by increased intercompany sharing of internal financial and governance data; sharing of member profile and polling data; effective intellectual property management; improved document discovery and retention; reduced duplication of routine staff activities; reduced duplication of hardware and IT systems; and the ability to collect, retain, analyze, and disseminate data across the enterprise. These improvements will result in lower consolidated operating expenses over time and allow it to provide higher value products and services to its members.

The entities' membership benefits from centralized access to information collected from individual member organizations, increased access to high-value electronic resources, and improved delivery methods for newly generated





scientific findings and reports, presentations, webinars, magazines, and other human services sector information.

### **The Future of Knowledge Management in Public Health**

Public health has the unique opportunity to become a leader in the field of KM in the human service sector. The leaders of public health organizations and their partners should unite and strive to take advantage of this position – and the ideal timing – to market a bold vision and take the initiative to establish a holistic strategy and sustainable knowledge management system. Taking this action would enable their organizations to fully utilize the existing technical infrastructure and build the systems needed to better link and collaborate with the health care system and to expand their roles as the go-to “knowledge broker” of choice in the public health and human service sector. The net result could be the ability of public health to share its science and program know-how almost at the speed of discovery.