A Tale of Two Floods

Applying Multi-sector Cooperation to Emergency Preparedness and Response in Illinois and the Czech Republic

A Case Study in
Policy Development
focusing on Essential Public Health Service #4:
Mobilize community partnerships to identify and solve health problems
through the specific lens of **Meta-Leadership**

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A Tale of Two Floods: Meta-Leadership Analysis of Emergency Preparedness and Response in Illinois and the Czech Republic

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Abstract of the Case

Title: A Tale of Two Floods: Applying Multi-Sector Cooperation in Emergency Preparedness and Response in Illinois and the Czech Republic

Public Health Function: Policy Development
Essential Public Health Service: Mobilize community partnerships to identify and solve health problems

Major Subjects Involved: Using the five principles of Meta-Leadership to critique and analyze emergency preparedness and response, leadership development, assuring access to health services in an emergency, and collaboration within a community

Setting the Case

- Type of Health Department / Agency / Facility: National, in the case of the Czech Republic, and County, in the case of Illinois.
- Relevant Geographic and Demographic Information: The Czech Republic is an independent nation-state in Central Europe, with an emerging economy and a fragile infrastructure. In Illinois, the three counties are in the northeast quadrant of the state; two counties are rural in demographics with a mid-sized town as the county seat and the third is both rural and urban in its demographics
- Organizational actors: In the Czech Republic, the Ministries of Health, Agriculture, and Environment, and Non-Governmental Relief Organizations. In Illinois, the governmental organizations coordinated by the County Emergency Management Agency Coordinator. Each county reports that their partners in response included all county departments, local government, non-profit/non-governmental organizations and some local private industry.
- Fiscal Resources and limitations: Each of the jurisdictions impacted by the flooding operates with a budget that does not include disaster response funding. In some cases, funds were moved from the annual budget into the response budget in order to provide services such as mosquito abatement. In each response, the federal disaster declaration was crucial to the community's continued solvency following the response.

A Tale of Two Floods compares and contrasts the 2002 Czech Republic flood and the 2007 Illinois floods. Both floods involved dislocation, property damage, and in the case of the Czech flood, loss of life. Because both floods were slow rising rather than flash flooding, the public health impacts were very similar, though the impact of the Czech floods was much more severe.

The case study centers on the use of Meta-Leadership concepts in disaster response and recovery as well as the potential for improved response to future incidents. The five principles of meta-leadership are utilized to critique and analyze the emergency preparedness and response, leadership development, access to health services, and collaboration within a community.

This case study focuses on the Core Public Health Function of Policy Development, especially Essential Public Health Service #4: Mobilize community partnerships to identify and solve health problems. The authors examine whether key stakeholders demonstrated Meta-Leadership

during the response to these incidents, and identify areas for growth in future responses by developing relationships and strengthening teams.

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Opening

The following case study operates on two levels. At its core, this case study is a comparison and contract between institutional responses to recent catastrophic flooding in Illinois and the Czech Republic. However, the perspective of this study is the particular lens of "Meta-Leadership," an emerging model of leadership development with particular value for emergency preparedness and recovery.

Applying meta-leadership to these particular floods in is no accident. The authors of this study were gathered together by the Mid-America Public Health Leadership Institute (MARPHLI), and represent leadership from public health, private business, healthcare delivery and non-governmental organizations in Illinois, as well as a single public health leader from the Czech Republic. In addition to the regular leadership development curriculum that characterizes MARPHLI's year long fellowships, the federal Centers for Disease Control and Prevention asked this group to focus on meta-leadership. Therefore, this case study includes a presentation of the principles of meta-leadership and their application to two natural disasters.

We will present a fuller description of the principles of Meta-Leadership below, but it is most important to understand the common-sense idea behind it: problems are better solved by leaders and institutions who know each other and each other's capabilities before a crisis, and that the responses and solutions to problems are better addressed by multiple stakeholders from a variety of sectors and affected institutions. Meta-Leadership offers a structure of understanding and analysis of this basic idea, with particular emphasis on disaster prevention, response and recovery.

In August 2002, heavy rain fell in central Europe for three weeks, triggering sequential flood waves across two major river systems. (Rick Management Solutions, Inc 2003) The Czech Republic suffered three billion Euros in damage, a third of which was concentrated in Prague, where massive flooding affected both residential and commercial properties. More recently, in August 2007, six counties in Illinois were declared federal disaster areas (FEMA 2003) after severe storms and flooding caused millions dollars of damage, and were approved for both individual and institutional assistance.

In each case, there were existing institutional disaster response plans in place, and swift action by designated agencies mitigated the potential for greater damage and loss of life. However, for the most part, the institutional response was dictated by a fairly rigid structure of pre-determined roles. Traditional public and governmental actors in disaster response were present, but many other potential stakeholders -- from other levels of government, business, and non-profit sectors -- were not.

Meta-Leadership gives us a way to understand how much more effective the preparation and planning of disaster recovery could have been, with its emphasis on multi-sector relationship-building before a disaster and non-hierarchical cooperation during the recovery. Even without knowing the principles of meta-leadership, leaders and institutions exhibited some of the five principles of meta-leadership. However, the principles were not articulated as such, were not fully present, and the response and recovery to the disasters was not as effective as possible.

An Overview of Meta-Leadership

Meta-leadership is a new structure for leadership development that evolved from realizations that contemporary conceptions of disaster preparedness were limited and the resulting preparations not as effective as possible. Leonard Marcus, Barry Dorn and Joseph Henderson collaborated in 2005 to articulate a new brand of leadership that challenges individuals to think and act cooperatively across organizations and sectors (Meta Leadership Summit 2009). This new structure is housed within the Meta-Leadership Summit for Preparedness, a joint effort of the Centers for Disease Control and Prevention, the CDC Foundation, the Robert Wood Johnson Foundation, and the National Preparedness Leadership Initiative - Harvard School of Public Health and the Kennedy School of Government.

Meta-Leadership is a strategy to overcome traditional silo thinking:

> Thinking and operating beyond their immediate scope of authority, meta-leaders provide guidance, direction, and momentum across organizational lines that develop into a shared course of action and a commonality of purpose among people and agencies that are doing what may appear to be very different work. Meta-leaders are able to imaginatively and effectively leverage system assets, information, and capacities, a particularly critical function for organizations with emergency preparedness (Marcus, Dorn and Henderson 2006).

Meta-Leadership could operate across a number of distinct sectors to improve any cooperative enterprise. In the practice of disaster preparedness, response and recovery, however, meta-leadership is principally concerned with effective coordination across government, business and non-profit sectors. We should note that the non-profit sector encompasses a broad range of sub-sectors itself, including higher and secondary education, faith communities, and many health care providers, among others. Though meta-leadership is concerned with cross-sector coordination, it starts with the individual leaders within these institutions. A key element of meta-leadership recognizes that leadership is not solely or even necessarily hierarchical.

Meta-Leadership reframes the process and practice of leaders. It has three functions: 1) a comprehensive organizing reference to understand and integrate the many facets of leadership; 2) a strategy to engage collaborative activity; and 3) a cause and purpose to improve community functioning and performance. There are five dimensions to the learning and practice of meta-leadership (Meta-Leadership Summit for Preparedness 2010):

The Person of the Meta-Leader: Meta-leaders tend to be systems thinkers who possess the qualities to direct large or complex initiatives: self-awareness, self-regulation, motivation, empathy, and social skills. The Meta-Leadership model is built upon rapidly expanding research of brain function under stress. Meta-Leaders possess the mental strength to move beyond the natural tendency to "fly, freeze or fight," and instead move to higher-order functioning to maintain focus on the overall situation. (Marcus, Dorn and Henderson 2006)

The Situation: That bigger picture, however, is constantly shifting during a crisis, and so Meta-Leaders must constantly adapt. This is especially difficult when information is incomplete, as it is in the early stages of a disaster or emergency. The connectivity that defines the rest of the Meta-Leadership model becomes the leading tool of the Meta-

Leader, who uses a dynamic web of vertical and horizontal relationships to fill in the gaps and react quickly as situations change. (Marcus, Dorn and Henderson 2006)

Lead the Silo: The Meta-Leader is likely to occupy a traditional leadership role as well, and is expected to activate direct reports and resources. Meta-Leadership recognizes that these subordinates are likely to be more effective in a crisis if the Meta-Leader has already built a culture of trust and accountability among them beforehand. (Marcus, Dorn and Henderson 2006)

Lead Up: Of course, meta-leaders are found at all levels in participating organizations, and will just as likely lead up as lead down. A meta-leader will be able to fulfill their hierarchical responsibilities while simultaneously attending to the larger systems surrounding the work to be completed. Being able to accomplish tasks on behalf of others is also the key to the fifth principle of meta-leadership. (Marcus, Dorn and Henderson 2006)

Leading Cross-Institution Connectivity: Meta-leaders strategically and intentionally are able to make connections beyond their own institutions that leverage expertise, resources, and information across multiple public and private sectors, integrating effort and maximizing efficiency and reach. Meta-leadership further specifies that these relationships must be established BEFORE a crisis, so that institutions can discuss what they will bring to bear in a crisis ("gives"), what they will need at that time ("gets"), and how they can work together to fill the "gaps" between them. (Marcus, Dorn and Henderson 2006)

Meta-Leadership is a valid extension of traditional public health practice. In 1994, the Public Health Functions Steering Committee adopted "Ten Essential Public Health Services," the fourth of which is "Mobilize community partnerships to identify and solve health problems." (CDC 2008) Public health has long been a governmental leader in disaster response, and is thus concerned with new approaches to leadership development. Meta-Leadership is a model and method to integrate personal and institutional leadership in a systematic and relevant way.

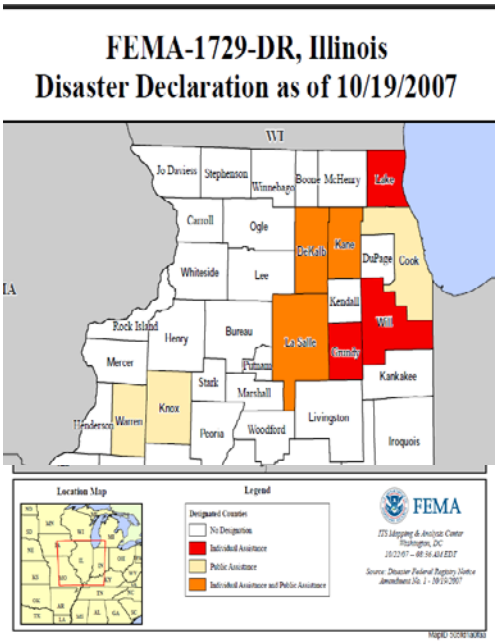
The expression of the "Ten Essential Services" places Service #4 within the Core Public Health Function of "Policy Development." (Institute Media 1988) The core function of Policy Development reflects that how we organize ourselves and how we pay for our services is at the core of our effectiveness and reflects our priorities for public health leadership. Meta-Leadership is both a new model for leadership development and an urgent call to expand the number and types of people and organizations involved in disaster preparedness, response and recovery.

The 2007 Floods in Six Illinois Counties

On August 18, 2007 a warm front became stationary in Illinois. Additional thunderstorms formed over Northwest Illinois on Sunday, August 19, exacerbating flooding. The stationary front then extended eastward through Illinois on August 19 and August 20.

Runoff from the heavy rain caused river flooding on the Des Plaines, Fox, Illinois and the Rock Rivers. Moderate flooding was also reported on the Mississippi River. DeKalb County reported 4.85 inches of rain on August 23 and 24. Flooding across northern Illinois was widespread in the aftermath of the storms.

On September 25, the Federal Emergency Management Agency (FEMA) announced that federal disaster aid was available for the state of Illinois. The federal funding made individual assistance available to flood victims in Lake, Will and Grundy Counties, and individual and public assistance available to those in DeKalb, Kane and LaSalle Counties. (FEMA 2007)



Of the six counties who received federal disaster aid, only three are considered in this case study. For purposes of anonymity, the three counties will not be specifically identified.

In each of the three counties studied, the Emergency Management Agency (EMA) is the reporting agency. The information contained within this case study was collected via telephone interviews conducted on February 26 and March 1 with the EMA Coordinator. Two of the three agencies in the study had EMA Coordinators that had been on staff for with some experience prior to the flood. The third County Coordinator had recently been hired and had only just moved to the Midwest.

In each case, the county Health Departments are involved as partners in the planning for response to disasters. However, in flood scenarios, their actual deployment is limited in scope. Mission assignments for health staff included tetanus clinics, mosquito abatement, well and septic inspection, and building inspection. Although not heavily involved in the response, each health department responded along the tasks of the essential public health services.

Each of the counties has a population base of rural and urbanized areas, as evidenced in the need for well and septic inspections. These are communities that are settled on the river which places them into a flood hazard zone. In two of three counties, the county nursing home was inside of the flood zone and needed to be evacuated. In one county, the hospital had to be diked to protect the property from flood waters. The diking of the hospital led to a proposal for a new sandbagging program which would improve response, which the Emergency Management Oversight Committee approved at the end of February 2010 (Lutz 2010).

In one of the nursing home settings, there were 97 residents to be protected. The county left one egress area open. Although the county had a contract with a private company to provide sandbags, the timing of the flood and the sudden onset of the flooding meant that the company did not fulfill their contract. The EMA Coordinator and a local Fire Chief led the efforts of many volunteers, and the county engineer and a surveyor projected the flood event to ensure that the sandbagging efforts would be sufficient. The nursing home was successfully evacuated and all patient care continued throughout the operation (Jobst 2010).

In one of the three counties, a large wetlands project slowed the flood crest and lessened the effect of the flood due to mitigation from prior floods. This meant that the majority of the flooding was more of a nuisance than a severe danger (McKenzie 2010).

Each of the counties in the study, the EMA Coordinator expressed the belief that, due to effective communications with their superiors, they had the full support of the local politicians and experienced no concerns with decision-making. In each of the counties, the staff reported to the County Board Chairman during a declared disaster. So, even in the county where the EMA Coordinator was new to the position, there was support for the work being conducted. The support for the EMA Coordinator and the mission assignment may be attributed to existing relationships or to the reality that flooding is expected on rivers and the individuals who live on the river understand the risks there.

In each of the counties, the EMA Coordinator is responsible during day-to-day operations as well as in disasters for the Meta-Leadership concepts of 'Lead the Silo,' 'Lead Up' and 'Lead Across.' According to the Illinois Emergency Management Act,

> "The Coordinator shall have direct responsibility for the organization, administration, training, and operation of the emergency services and disaster agency, subject to the direction and control of that principal executive officer. Each emergency services and disaster agency shall coordinate and may perform emergency management functions within the territorial limits of the political subdivision…" (20 ILCS 3305)

In other words, the Coordinator brings together all community partners to plan for and respond to disasters.

In each of the counties in this study, there are good examples of systemic leadership in the areas where traditional emergency responders already had regular interaction. Because the individual and institutions participation does not extend beyond the traditional disaster preparedness and response communities, it is difficult to characterize them as Meta-Leaders. Still, they exhibit some of the traits of meta-leadership. In each case, the Coordinator acts as a 'Leader Up' in the interaction with the County Board Chairman. Additionally, each county must lead up when dealing with the Illinois Emergency Management Agency. While not all counties had subordinate paid staff positions, each 'Led the Silo' through staff, community members or volunteer programs. Each county also had opportunities to 'Lead Across' with community-based and volunteer organizations, including the American Red Cross. In some cases, 'Leading Across' was accomplished with other emergency responders such as local Health Department, Fire Chief and state Department of Transportation.

In each of the counties, there was a dearth of media information. Press releases included

information regarding the disaster declaration process, but reported very little information regarding the overall incident. There was no electronic information available regarding public safety or community updates regarding public health concerns. Additionally, the little information which was available on internet news sites dealt more with the lack of public knowledge or information regarding the assistance process and timeframes. However, two of three counties reported in our interviews that they held daily briefings and supplied public health and safety information to the media and the general public in multiple formats at many times during the flood event. It is therefore a possibility that the lack of information on the public domains following the event is a result of a lack of perceived importance on the part of the media. Another opportunity to apply meta-leadership concepts may be in the partnership with local news outlets.

In all counties, agreements were in place between and among organizations to provide services, information or resources to enhance damage assessment, flood forecasting, mitigation of flooding, and transportation. And in some cases, new relationships were formed due to the flood and have been continued since the incidents. One case in point is a new and very effective relationship with the Fox Waterway Agency in which the information regarding flood forecasting is shared with the EM organizations.

In some cases, the responding staff disregarded plans to provide integrated services during the emergency; they were unable to open an Emergency Operations Center at the onset, they did not use of standard Incident Action Planning, followed no formalized Incident Command System structure, and exhibited tunnel vision regarding accessing additional resources. Additionally, there seemed to be a lack of planning in some jurisdictions regarding flood mitigation and building zoning or codes. In most cases, these challenges are not the purview of the County EMA Coordinator and so they are caught in a "Catch 22" where they may make recommendations to local communities but have no authority over that community.

In every community, a disaster is an unfunded mandate, usually with no reserve fund for disaster response. Because of this fact, the EMA Coordinator has no authority over other department where staff ought to be held over and paid overtime to support the operations. In some communities, there is no policy that states whether non-sworn personnel can be held over to support a disaster or emergency. In at least one of the counties, there was concern with multiple departments regarding the cost of overtime pay for staff.

In every community, Meta-Leader principles offer a shared, community solution to the lack of available resources during a disaster. In one case, a private company agreed to provide filled sandbags for community mitigation efforts, but could not meet a delivery deadline. In Meta-Leadership, identification of a gap, such as sandbagging capabilities, (FEMA 2008) should result in discussions regarding timeliness, availability, accessibility, and barriers to service provision. Meta-leaders should ensure that community partners are involved in the local exercise programs to ensure that the agreement is plausible in different scenarios.

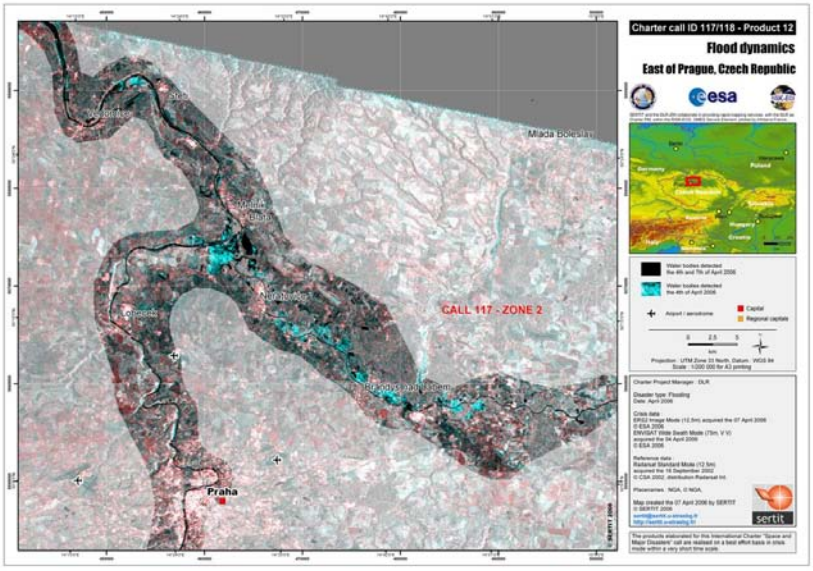
Another concern in some areas included the inability of residents to get to work due to flooding and whether they would be able to access unemployment benefits. The economic impact of a disaster on a community can include job loss or reduction in work, and immediate and continuing losses to private businesses. These factors are crucial to the community's economic resiliency. Meta-leaders in the community may identify opportunities to strengthen relationships with key employers to improve future response and create operational continuity plans.

Each County responded well to the floods, processes and policies have been improved since that time. But each community also had good leaders in place who did not necessarily act as Meta-Leaders, especially regarding the inclusion of private industry. An example would be working with large employers to ensure they are open for business and their employees are earning their pay as soon as possible following the incidents. Another example would be identifying private partnerships to work to restore the community to pre-disaster status as quickly as possible such as partnerships with businesses and agencies to conduct damage assessment services.

It should be noted that although some programs discussed in this study are in place today, they were not in place at the time of the 2007 flood incident and so they are not discussed herein.

The 2002 Floods in the Czech Republic

The Czech Republic is geographically known as the "Roof of Europe" because water from a relatively small area flows into three seas: the Vltava river and Labe river (Elbe) flow to the Northern Sea through Germany, the Odra river flows to the Baltic Sea through Poland, and the Morava river flows to Donau (i.e. to the Black Sea) through Slovakia, Hungary and Romania. (Disaster Charter 2006)



The flooding of the year of 2002 was a significant test for the inhabitants of the affected areas of Bohemia, and of the new crisis management system of the Czech Republic -- the integrated emergency system and the services and institutions necessary for the successful control of the larger disaster. (Rihova 2010)

Since the catastrophic flood in 1997, new rules were instituted in the Czech Republic with respect to floods prevention and reaction:

1. The Czech government adopted the document “Strategy For Prevention Against Floods In The Czech Republic“ and enacted new regulations regarding crisis management and integrated rescue system that helped during the floods in 2002.
2. The state controlled enterprise “Povodí” (Basins) was given responsibility for the river system in the country and the obligation to work out the plans for the anti-flooding measurements.
3. The Czech Republic adopted a new information system called "Voda” (Water) for state administration, public administration and citizens to shared up-to-date information about the status of river levels, translated into six languages because of neighboring countries.
4. The country’s non-governmental organizations (NGOs) were invited to take part in the process of Environmental Impact Assessment (EIA), and their opinions are now included in the framework of programs of flood prevention. In the case of rapid response to the floods, NGOs can offer psychological and other relief services.
5. The Rescue and Fire Brigade of the Czech Republic was given supreme command of the flood control management, according to the laws regulating crisis management and the integrated rescue system. (Rihova 2010)

The Parliament of the Czech Republic enacted the Water Act (# 254/2000), the Act of Integrated Rescue System (# 239/2000), the Act of Crisis Management (# 240/2000) and the Act of Economic Measures for Crisis Situations (# 241/2000). These acts defined the obligations of the state, regional and local institutions, together with private companies, land owners and individuals. The integrated rescue system included the fire brigade, ambulance and the state police. The main crisis operation centre is located in Prague, with fourteen operation centers in appropriate regions. The sophisticated, up-to-date warning system was created after the 1997 flood using the computer system called ALADIN modeling the weather development. It supplies appropriate information to the main crisis operation centre, TV and radio and the internet. (Rihova 2010) This system proved to be an effective instrument in performing emergency rescue operations during the floods of 2002. (Pokorny and Storek 2003, cited in Kumar 2005)

One key part of such services is the hydro-meteorological services, represented by the Czech Hydro-Meteorological Institute (CHMU). The activity of the Institute and its Forecast and Warning Services (PVS) is very important during flooding and other crisis situations resulting from natural disasters. According to Czech law 254/2001, the CHMU ensures that the Ministry of Environment will provide flooding forecast services in the Czech Republic in co-operation with the state enterprise Povodí, in the Ministry of Agriculture. Cooperation between the CHMU and the management of the river basins is very important, especially on dammed rivers; during the 2002 flooding, the manipulation of the Vlatva River Cascade was vitally important.

After the catastrophic flooding in 1997, the CHMU re-evaluated their overall response and instituted large-scale measures that lead to the improvement of their response capabilities.

Beginning in 2000, the CHMU improved their interconnection with systems of crisis management both nationally and regionally. Although the Czech Republic's response to the 2002 floods dramatically improved over 1997, the still-catastrophic dimension of the 2002 flooding presented the necessity to continue improvement of the flooding service and the system of the crisis management overall. (Rihova, 2010)

The governmental structure of the Czech Republic includes a Ministry of Health with a centralized office, including the Department Of Public Health Promotion and Protection. The organization and understanding of the term "Public Health" is different in the Czech Republic and other central European countries. Public Health is equivalent to Hygiene and Epidemiology. The Ministry of Health is funded by governmental budgets. There exist 14 Regional Public Health Departments. The Leadership of in the public health during and after 2002 flood was performed by Chief Public Health Officer of the CR Michael Vit and his team.

Flooding was wide-spread during the late summer of 2002 in Germany, the Czech Republic, Hungary and Austria. In the Czech Republic, flooding was the result of five to ten inches of rainfall between August 6th and 7th. (Risk Management Solutions, 2003) Czech Republic reservoirs were unable to contain the flood run-off. In addition, a cyclone was generated from the north Adriatic Sea towards Poland. (Risk Management Solutions, 2003) The Cyclone was slow moving with warmer than usual water temperatures in the Adriatic and Mediterranean seas. These factors fed the high moisture content of the atmosphere which led to torrential downpours in the previously defined areas. The Czech Republic suffered severe flooding in the Sumava mountain area and in south Bohemia. The flood wave moved from the South of the Czech Republic through Prague. (Risk Management Solutions, 2003).

The economic impact of the flooding was estimated at over 11 billion Euros. Damage was incurred by both historic sites such as the Old Town area of Prague and the country's infrastructure including transportation. The age of the Czech Republic infrastructure contributed to the extent of the damage. (Risk Management Solutions, 2003) In addition to the public infrastructure impact, the local residents did not have a history of wanting or needing flood insurance. This resulted in the federal government's supplying much of the recovery funds. (Risk Management, 2003) Public transit was rendered unusable along with over 120 bridges. Agricultural losses were estimated at 50% of the normal harvest and livestock were not able to be fed. (Willis, 2002)

Non-governmental organizations (NGO) sprang into action. The Czech Republic, Slovakia and Romania Red Cross immediately mobilized to provide shelter, food and other basic needs to those affected. Basic living supplies were distributed including food, flashlights and hygiene items to help stem the spread of disease after the disaster. This coordination was coordinated with federal governmental. In addition to the immediate response consideration was given to the replenishment of supplies for further disaster occurrences. (International Federation of the Red Cross, 2003)

Both central and regional and local authorities welcome voluntary co-operation with NGOs, but the key response role belongs to the state institutions in central, regional and local government. During the 1997 flood, this was explained as the "national nature feature" which expresses itself by the will of the people to help their neighbors and other people. Citizens assist "the brothers

and sisters in need" without any duties and any preliminary organization or given legal obligations.

During a flood the Public Health department of Ministry of Health controls the regional offices. They check the quality of drinking water supplies, food, sanitary facilities, the need of a vaccination, etc. The Public Health department and subject regional offices help the regional and local governments to provide the larvicides to fight with mosquitoes post flood. After the 2002 flood, the US government helped the Czech Republic by donation of the larvicide.

NGO Cooperation and Meta-Leadership in the Czech Floods

In his analysis of Non-Governmental Organization coordination in the 2002 Czech Floods, Pankaj Kumar analyzed the nature and level of coordination of four Czech humanitarian NGOs to better understand the challenges and incentives for NGO coordination during the 2002 floods. While his analysis ultimately reveals an ineffective level of coordination, it does address elements of meta-leadership that could be addressed to improve future disaster responses. Kumar provides some insight into the presence or absence of meta-leadership, without employing a meta-leadership analysis; meta-leadership had not been articulated yet when he wrote his analysis in 2005 (Kumar, 2005).

Kumar identifies six obstacles to operations coordination: competition for funds, different mandates of NGOs, coordination that slows down the response, coordination that increases the bureaucracy, the costs of coordination, and coordination that reduces financial accountability. Kumar 2005) These obstacles are well known to any institutions that seek to coordinate any activities, but they highlight a key element of the meta-leadership model: the necessity to build relationships and alliances before a disaster strikes. So much of what Kumar identifies as barriers could be reduced by honest conversations and negotiation before a crisis. For example, in the aftermath of the floods, the People in Need Foundation (PINF) took the initiative to try to divide the recovery work among the four leading relief organizations. (Kumar 2005) However, because they were negotiating this coordination during the crisis, lack of a common framework and understanding of each others' capabilities led to days of negotiations and delays, after which no agreements were made.

Kumar identifies two other significant barriers that have meta-leadership implications. He identifies "lack of managerial experience as an obstacle to coordination." (Kumar 2005) Meta-leadership recognizes that the response starts with the person of the leader. If the leader is inexperienced, he may not have the individual strength or emotional maturity to response well in a crisis. Lack of managerial experience in a disaster may also result in an inability to react quickly to the shifting nature of the crisis. This reality only highlights the need for experienced managers to "lead down" to their less experienced counterparts and build an organizational culture that connects to other institutions before and during a crisis.

Kumar identifies differing organization values as a second barrier to coordination. This issue is common to many social improvement organizations, for there is no shortage of different opinions as to how to go about it. Kumar highlights differences between secular and religious NGOs, and between groups focused in urban and rural areas, and the north and the south of the country. Certainly, there may be true differences in process, orientation and work style. But

meta-leadership is based on the principle that problems can be solved faster, better and more efficiently by making connections between diverse institutions. In the meta-leadership model, the differences between institutions become part of what they offer to the community of leaders and actors, rather than barriers to participation. By leading across silos, meta-leaders are more efficient at serving their own constituency, and bring additional resources to bear from institutions that would not have previously supported them. This mutual self-interest ends up creating a community good that could not have been created otherwise.

In closing his paper, Kumar makes recommendations that are consistent with system improvement and offer a glimpse into meta-leadership. (Kumar 2005) For example, he proposes to improve coordination by harmonizing standards and approaches, rather than make connections between institutions with differing approaches. This might be effective if all of the NGOs are under the control of a single entity, but they are not. By definition, they are different organizations and thus requiring them to change will not necessarily encourage their participation.

Kumar makes two recommendations that are foundational for meta-leadership. In the first, he proposes that coordinated planning is a fundamental component of disaster management, and goes on to suggest that it is essential to initiate this planning before the onset of an emergency. He goes on to suggest that the application of a 'strategic planning approach' would be of great benefit to NGO coordination, suggesting by this language that this application of strategic planning is unfamiliar to the Czech audience.

In the second, he gets at the heart of the Czech Republic's structural deficiency and makes recommendations that look a lot like meta-leadership, but that a unable to be addressed under current Czech law. The overall Czech response to disaster and emergencies is framed by the law that defines the responsibility for disaster preparedness and response. But Kumar addresses the fact that there seems to be almost no coordination or connections between the government that has responsibilities for the disaster response and the NGOs who take responsibility for the relief efforts. (Kumar 2005) He makes what appears to be a radical suggestion that the NGO sector will tremendously benefit from coordinating their operations with other organizations who are involved in disaster preparedness or response. However, this suggestion contradicts established law in the Czech Republic. (Rihova, 2010) In the Czech Republic legal system, the government cannot transfer any level of responsibility to NGOs. The Czech constitution guarantees that every citizen has the right to be protected in the case of crisis. This is the obligation of the state and it is impossible to delegate this obligation to any other subject, even voluntary NGOs! Of course, this does not suggest that the government is uninterested in cooperating with NGOs, but just that it lacks a framework for this cooperation; the government cannot appear to be abrogating its responsibilities.

Kumar closes by citing the following list of skills identified in 1995 by the International Committee of the Red Cross to develop better organizational management and coordination in the NGO sector (IRC, 1995):

- facilitation skills ("person of the meta-leader")
- consensus building ("person of the meta-leader")
- preparation of memoranda of understanding (preparation beforehand, "gives, gets and gaps")

- identification of each organization's comparative strengths and mandates in order ("gives gets and gaps")
- to establish a division of labor ("leading up and down")
- maintenance of a "communications loop" ("connectivity')
- participatory decision making ("leading across silos")
- provision of personnel incentives to coordinate ("leading up and down"), and
- improved communication. ("connectivity")

Perhaps meta-leadership isn't such a new idea after all.

Comparison & Contrast

After reviewing the Illinois and Czech floods, it is apparent there were instances where the themes of meta-leadership were demonstrated and other instances where the principles were not utilized in the response and recovery efforts. In each case, the responsible parties gained additional insight into areas that could have made the response to the disaster more effective. Had meta-leadership principles been utilized, the response would have been based on the criticality of cross sector coordination. Meta-leaders would have recognized the importance of key principles including "situational awareness," the ability to effectively manage their silo, "leading up" and the importance of "cross-agency connectivity" (Meta-Leadership Summit 2009).

In both the Illinois and the Czech floods, there were cases where meta-leaders did emerge; however, the need for improvement in both cases was apparent after the disaster. The criticality of the "situational awareness" that occurred during both floods was addressed differently based on key governing roles and responsibilities of key designated leaders. In the case of the Czech floods, the laws in place determined leadership roles; however, meta-leaders were not in place in those roles in all cases (Rihova 2010). During the Illinois floods, the EMA officials had the responsibility per se to manage as meta-leaders, but did not have the ability to look at the bigger picture to prevail in every instance.

In the case of the Illinois floods, although previous cross sector planning had occurred prior to the disaster, the cross-agency connectivity planning had not been tested sufficiently. In the instance where the contract was in place for sandbagging to mitigate loss, the vendor was unable to fulfill the contract. This would have become apparent if tests to the plan had been done to ensure there were no perceived gaps. Meta-leaders did emerge when the EMC Coordinator, Fire Chief and others began "leading up" and focused on "leading cross-agency connectivity." Conversely, in the case of the Czech floods, one of the key lessons learned was that CHMU needed to focus efforts on improved interconnectivity with NGOs and other organizations while planning for future disasters.

In both cases, the understanding of the "gets," "gaps" and "gives" was not apparent during the response efforts to a great extent. The basic needs for sheltering, feeding and assisting impacted individuals and families was met; however, if the meta-leadership model had been in place and applied during these two incidents, the response effort and the cross-agency response could have been more effective to assist citizens. Based on interviews, the private sector was

not engaged to assist, nor had they planned effectively to provide input to employees on post disaster information.

After both flooding incidents, it was apparent to all parties that more could be done in the overall planning, response and recovery aspects of future disasters. This is where the importance of the meta-leadership structure and model can be impactful for future planning in both the Czech Republic and the state of Illinois to whereby emerging meta-leaders can improve on their ability to leverage system assets, information and capabilities to drive a collaborative and effective response.

Closing

It's clear from these two case examples that wildly divergent disasters – an international European flood and a mild six-County flood in Illinois – can still illustrate some stark truths about the state of disaster preparedness, response and recovery. While both the Czech Republic and County-level efforts were effective and represented an improvement over past crisis responses, there is still additional improvements to be realized. Meta-Leadership offers a model for the leadership development in times of crisis, and that model is making some headway in both the Czech Republic and in Illinois.

Illinois meta-leadership progress is measured in initiatives both small and large. In 2008 and 2009, Illinois hosted multiple events to promote meta-leadership, including a meta-leadership Summit and post-summit evaluation that brought together over 100 leaders from a variety of governmental, non-profit and business institutions. One outgrowth of that Summit was the intention to form a state-wide Institute for meta-leadership in Illinois, the first of its kind in the nation. The planning for this institute is housed at the University of Illinois School of Public Health, and this case study is the first tangible evidence that meta-leadership may become institutionalized in Illinois.

The Lake Cook Regional Critical Incident Partnership (LCRCIP) is a local program that exemplifies Meta-Leadership in preparedness and response to disasters. As it exists today, the LCRCIP is an outgrowth of the "Critical Incident Protocol" (CIP) program from Michigan State University. The Village of Libertyville, Volkswagen Credit, and Motorola brought the CIP to Libertyville in 2006. The CIP involved three facilitated meetings, the last being a large exercise. For a variety of reasons, the CIP group in Libertyville wasn't able to keep the momentum and continue with regular meetings. Discover Financial learned about the CIP program and invited a number of people from nearby businesses and jurisdictions to a kick-off meeting in July, 2007. Following that meeting, in October 2007, an even larger stakeholder group met at Takeda Pharmaceuticals in Deerfield, and elected a steering committee to plan for the future of the group. That steering committee met often (monthly or more-often) throughout 2008 to plan a number of other meetings of the full group, and to develop formal bylaws for the group. At a meeting in February, 2009 the full membership approved the organizations bylaws and late in the Spring of 2009, LCRCIP incorporation was completed. Some additional information is on the LCRCIP website at http://www.LCRCIP.org (McKenzie 2010). Members of the LCRCIP also participated in the Illinois Meta-Leadership Summit in 2009.

In the Czech Republic, the penetration of meta-leadership is minor. The Republic was able to send one ranking public health official to the United States to participate in the Mid-America Regional Public Health Leadership Institute, with a focus on meta-leadership. In March of 2010, nationally recognized leaders on meta-leadership Professor Lou Rowitz of the University of Illinois at Chicago and the Director of the State of Illinois Department of Public Health Damon Arnold did travel to the Czech Republic to present on meta-leadership and begin to cultivate interest in the model. While the Czech Republic is more institutionally constrained by its disaster responsibility law that limits cross-sector connectivity and silo-busting, even the small amount of interest in meta-leadership is heartening.

"Meta-Leadership" as a brand is not used in the Czech Republic, but there are regular official meetings between the Security Council of the State, the Central Crisis Staff, and the regional crisis offices to get to know each other and update their flood plans. (Rihova, 2010) The principles of meta-leadership suggest that these efforts will enable the participants to be more effective in times of crisis, but they will not be fully effective until their connections expand to include stakeholders from non-profits and business. In this final respect, Czech officials are very much like their colleagues in Illinois.

Teacher and Trainer's Questions from the Case Study

1. Who should have accountability and responsibility to establish policy and procedural guidelines for Meta Leadership principles? Does this vary by state within agencies, institutions and/or government?

2. The case study discusses private and non-profit organizations that may be integrated into the community in a similar disaster. What specific types of public health issues could private industry address in response or recovery?

3. Of the three primary sectors identified for inter-sector coordination within the Meta-Leadership model, which sector is most likely to willingly participate? Which are sector is least likely?

4. At the time of the Illinois floods, the economy was robust. Three years later, in the midst of an economic recession, governmental, non-profit and private business budgets have been substantially cut. What positive or negative impacts could Meta-Leadership have on the response to a similar catastrophic event during an economic recession?

5. What are the barriers to addressing improvements outlined in the "Corrective Action Plans" instituted after the flooding in Illinois?

6. What political pressures were present during either incident? How did the leaders in this case study address these challenges?

7. Both case studies depict examples of good leadership but without the cross-sector systemic coordination exhibited by meta-leaders. Can you provide examples of ways meta-leadership could have been exemplified?

8. How are the barriers to institutionalizing Meta-Leadership different in Illinois and in the Czech Republic?

9. How does Meta-Leadership differ from the International Red Cross' 1995 skills outlined to develop better organizational management and NGO coordination?

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