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A Communication Strategy to Address Health Inequities in Municipal Settings

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Abstract

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Keywords

Collaborative efforts; Communication strategy; Health inequities; Municipal officials

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ABSTRACT

This study assessed knowledge of health inequities, importance and benefits/barriers of addressing inequities, and ways of communicating information about inequities among municipal officials. Five focus groups (N=47) were conducted with officials from economic development, land use and housing, public safety, education, and environment departments. Discussions were recorded, transcribed and analyzed for key themes. Findings show that participants had an uneven understanding of the symptoms and causes of health inequities and identified limitations to participating in health equity initiatives and collaborating with local health departments. Recommendations are that a communication strategy to reduce health inequities should aim to increase awareness of the links between local government policies and the health status of vulnerable populations. For collaborative efforts to work, local health departments need to make functions of public health more explicit, provide evidence of health inequities and their causes, and demonstrate that they have the commitment and capacity to lead.

Key words: health inequities, communication strategy, municipal officials, collaborative efforts

INTRODUCTION

The elimination of health disparities is an overarching goal of the Healthy People 2010, a planning framework that established goals, objectives and public health priorities for the nation for the 2000 decade (U.S. Department of Health and Human Services [DHHS], 2000). These differences in health status occur between groups who are economically and socially advantaged and those who have been "marginalized because of socioeconomic status, race/ethnicity, sexual orientation, gender, disability status, geographic location, or some combination of these" (Brennan-Ramirez, Baker, & Metzler, 2008, p. 6). Health disparities become unjust when they are symptomatic of unequal distribution of the social determinants of health (Baker, Metzler, & Galea, 2005). These determinants include housing, education, employment, transportation, healthy food and water, social support and inclusion, wealth, power and prestige, among others (Braveman & Gruskin, 2003; Commission on the Social Determinants of Health [CSDH], 2008; Smedley, 2006; Wilkinson & Marmot, 2003). Groups who

are at a disadvantage because of these conditions have a higher likelihood of poor health outcomes when they have little or no access to resources that could improve their health (Baker et al.).

Efforts to bring about change in multiple sectors that impinge on health equity require a multidisciplinary approach and must involve communities and local, state and national government agencies (Anonymous, 2009; Bloss, 2006; CSDH, 2008; DHHS, 2000; Smedley, 2006). Local governments have the ability to influence how social determinants of health are distributed in their communities. For example, in Connecticut local governments provide most social services such as education, housing (especially for low income populations), police, fire, traffic safety, social services for the elderly and youth, and park, and recreational facilities. They can encourage economic development and environmental health through planning and zoning regulations and licensing, building and maintenance of transportation systems, and capital investments (Frank, Ilg, Kemp, Schenck, Smith, & Therrien; U.S. Census Bureau, 2007).

Although collaboration among local government agencies and local health departments in a variety of health issues is common (Lovelace, 2000), these agencies face several roadblocks to forming meaningful collaboration to reduce health inequities in their communities. First, they have to contend with a lack of awareness and understanding of the social determinants of health equity among government officials and the public (Cohen, Iton, Davis & Rodriguez, 2009). There is also a lack of clarity on the roles that local, state, federal agencies and community groups play in bringing about multisectoral solutions. Also obscure is the question of leadership roles, particularly of public health agents vis-à-vis sectors that can directly affect determinants of health equity (Cohen et al.; Hofrichter, 2006). Health departments and other local governments are generally underfunded, and regulations concerning jurisdictions and funding tend to limit inter-agency collaboration (Hofrichter). Resolving these problems will require, in a part, a communication strategy that involves "establishing effective communication channels, navigating turf issues, and clarifying shared goals and objectives" (Cohen et al., p. 8). To our knowledge, no study has examined the perspectives of local government agents concerning health equity in their communities and their willingness to collaborate with their public health counterparts. Furthermore, a study examining these issues will add to knowledge of local public health department practice which to-date has been understudied (Lovelace; Plough, 2006).

Proponents of communication strategies to eliminate sources of health inequity have mainly focused on the process of communicating with the general public about health inequities (e.g, Cohen et al., 2009; Hofrichter, 2006; Niederdeppe, Bu, Borah, Kindig, & Robert, 2008). In addition, published health equity initiatives have mainly focused on building community capacity (e.g., Bloss, 2006; Center for Community Health and Evaluation, 2008; Schultz, Parker, Israel, Allen, DeCarlo & Lockett, 2002). To our knowledge, no study has examined communication strategies that would create awareness and engender collaboration among local government officials to address these inequities.

Communication Strategies

Strategic communication objectives can be characterized by one of two ways. Objectives may be informational where the aim is to raise awareness, interest and/or knowledge; or motivational where the aim is to induce attitude and behavior change. A staged approach is often followed that starts with informational objectives and once this foundation is laid, shifts to a focus on motivational objectives (Tyson & Hurd, 2008).

Audience research is conducted to determine which population segments should be targeted in order to meet the campaign's objectives. The audience's knowledge, attitudes and behaviors should be examined. Once the target audience has been analyzed, message components can be defined. Messages attempt to maximize perceived benefits and minimize perceived barriers. Channel analysis also occurs during the research stage. Channel analysis involves determining which communication vehicles are best suited to disseminate messages to target audiences.

Another key aspect of planning a strategic communication program involves identification of key opinion leaders and stakeholders. Opinion leaders are trusted sources of information and are effective in influencing the attitudes and behaviors of the target audience. Stakeholders are individuals and organizations that have a vested interest in the subject of the campaign and can influence the outcomes. Pertaining to health inequities, opinion leaders and stakeholders can include elected municipal officials, local health directors, volunteer board members and salaried municipal department heads involved in land-use/housing, environment, public safety, economic development, and education (Hofrichter, 2006).

Once a strategic communication plan is developed, communication messages can be finalized, communication materials produced, and the channels and sources to be used employed. In order to manage the implementation of a communication strategy, specific time frames and responsibilities are established for execution of each activity. Careful monitoring activities are also initiated at this point. Planning, implementation and monitoring are a cyclical process in which effectiveness is constantly assessed to identify problems and allow for adaptations to be made (Tyson et al., 2009).

Objectives

This study proposes that strategic communication principles can effectively guide efforts to foster collaboration between public health officials and representatives of local economic development, land use and housing, public safety, education, and environment departments to address health inequities.[1] The objectives of this research study were to:

a) Assess existing knowledge of health inequities, perceived importance and benefits/barriers of addressing inequities, and ways of communicating information about inequities among key municipal opinion leaders and stakeholders in Connecticut.

b) Develop recommendations for a communication strategy to be implemented by local public health officials in collaboration with key municipal opinion leaders and stakeholders to address health inequities.

Information presented in this article may provide guidance to officials in other states interested in addressing the causes of health inequities.

Background

Connecticut is a wealthy and relatively healthy state. In 2009, America's Health Rankings (AHR) placed Connecticut highest in per capita personal income, third highest in median household income, and seventh lowest for rates of uninsured in the United States (United Health Foundation [UHF], 2009). AHR also ranked the state in the top five for lowest rates of premature deaths, poor physical health days, obesity and smoking and in the top 20 for lowest rates of cancer and cardiovascular deaths, infant mortality and poor mental health days.

Despite their wealth and relative health, Connecticut residents experience deep socio-economic and health inequities (Capps, Zuckerman, Henderson, Cook, & Fortuny, 2005; Stratton, Hynes, & Nepaul, 2009). The state ranks 46th in the nation in terms of having the largest income inequalities (UHF, 2009). These inequalities are evidenced in the per capita incomes of minority race/ethnic groups which are a third to half of per capita incomes of Whites, and poverty rates that are four to five times higher compared to Whites (Stratton et al.). However, poverty is not limited to minority groups in that 55% of people living in poverty are White.

Connecticut is largely urban in that a majority of the population (84%) lives in the three largest Metropolitan Statistical Areas (MSAs) which straddle the state's main highways (Stratton et al., 2009). Although minority race/ethnic groups make up about 20% of the state's population, they

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1	This article is based on a project conducted for the Connecticut Association of Directors of Health by the Center for Public Policy and Social Research at Central Connecticut State University between October 2008 and January 2009.

comprise over 65% of the population of the three largest cities and 30-40% of the next five largest cities (Stratton et al., 2009). The average 1999 per capita incomes of the states' three largest cities (Bridgeport, Hartford, and New Haven) is 40% of the per capita incomes of Fairfield County, where most of the state's wealthiest cities and towns are located (Connecticut Department of Public Health [CTDPH], 1999).

Sixty-five of the towns, mostly located in the eastern and northwestern part of the state, have been designated as rural areas. They represent 8.9% of the state's total population (Holt, Wexler, & Farnam LLP [HWF], 2006, p.5). The vast majority of rural residents (98%) are non-Hispanic Whites, although the proportion of racial/ethnic minority residents is increasing (Stratton et al, 2009, p.129). The poverty rate of 4.3%, is well below the state wide average of 7.9% in 2000 (HWF, p. 13). Vulnerable rural residents, such as those with low incomes, older and disabled persons, and seasonal workers experience income and health inequities because "access to jobs, health care, and transportation may be difficult" (Stratton et al, p.11).

Connecticut has 80 local health departments (LHDs), of which 65% are full-time and the remainder are part-time (CTDPH, n.d.). All but 32 of the full-time departments cover a single municipality. LHDs are distinct entities from the CTDPH, but they do perform state-mandated public health functions such as infectious disease control and environmental health. They have the authority to levy fines and penalties for public health code violations, grant license permits for food services establishments and septic systems, and receive funding to conduct a range of public health activities. The directors of LHDs are appointed by the Commissioner of Public Health

METHODS

Participants

Five focus groups were conducted with a selection of elected municipal officials, volunteer commission and board members, and salaried municipal department heads involved in economic development (n=9), land use and housing (n=10), public safety (n=9), education (n=8), and environment (n=11). The 47 (40 men, 7 women) participants were from 41 municipalities and towns. In addition to varied positions and disciplines, participants were selected to represent small (n=7), medium (n= 30) and large towns (n=4). The individuals were identified through lists provided by the Connecticut Council of Municipalities, Connecticut Economic Resource Center, and Connecticut Department of Education.

Data Collection

Each focus group lasted approximately 90 minutes. Discussions were audio recorded and detailed notes were taken by two individuals. Recordings were transcribed verbatim. The focus group protocol had six questions:
a) Do health disparities exist in your community?
b) Can you describe instances in which a policy or regulation your department implemented may have disproportionately impacted the health of one group compared to another group ether positively or negatively?
c) How important is it to incorporate health equity concerns when formulating government regulations, policies, practices, and allocation of resources?
d) What are the benefits and barriers of working collaboratively with directors of health to address the causes of health inequities?
e) What would be the most convincing way of communicating the need for interdepartmental collaboration among town officials to reduce health inequities?
f) Who might best initiate and coordinate this communication effort?

Data Analysis

Data analysis involved the following procedure (Brown, 1999). In the first step, two of the authors with training in public health independently reviewed responses to each question for themes. Next, the relevant themes were identified, related themes were grouped and classified into more abstract categories. The transcripts were reviewed several times to ensure that no relevant themes were overlooked. In the second step, the other two authors with training in communication also identified themes based on their detailed notes. In the third step, the findings from steps one and two were reconciled and the most frequently identified and strongly felt themes were reported.

RESULTS

Perceived Health Inequities.

The following themes were identified from participants' responses to whether health inequities exist in their communities and whether they thought some of their policies and programs may have affected these inequities either positively or negatively.

Inequities in urban areas. A persistent theme across the five focus groups is that health inequities are evident in urban settings – settings characterized by a higher percentage of multi-family rental housing, lower-quality housing, poorer environmental health conditions, little access to healthy foods, and low incomes. A participant described these development patterns as: "low income people living in the central areas of town, where the rents and housing costs are lower. Those [older houses] are going to have lead paint and asbestos in the basement…a little more traffic around there, a little more air pollution." These conditions are likely to cause "lead paint hazards and elevated blood lead levels, obesity, diabetes and asthma."

These areas were also associated with sanitation issues and public safety concerns. A public safety participant reported that in low income housing projects, he encountered "an accumulation of trash in the hallways, in living areas, in common areas, in the outside areas. [He] saw more things that were detrimental to people's health - infestation of rodents and insects." Blight also was described as "more deteriorated structures, more vacant lots that just get overgrown and the health problems that come along with that kind of situation." Crime in these areas was also an issue raised by public safety officials as shown by this quote: "[in the past] you read about one murder a year… Now it is one every week."

Participants added that poor quality neighborhoods bring other health disadvantages. One of them is lack of access to healthy foods in their neighborhoods. One participant attributed the high incidence of diabetes and hypertension in an African American neighborhood to an unhealthy diet because: "there's no healthy type of outlet for nutrition, so they have to deal with immediate availability of fried food and food high in fat intake and this inevitably has an effect upon their health."

Urban areas were described also as having a concentration of social services, though beneficial, they can give rise to unintended problems. One participant described the negative outcomes of having these centers in his community when their clients fail:

"They have a cycle of drug abuse, larcenies and burglaries to feed their drug habit. The mental illness problems…a couple suicides and/or drug-related untimely deaths each month. We have an unbelievable amount of protective custody for alcohol or mental health reasons. It places a big burden on us and has a significant impact on the community."

School officials from these areas state they need to offer more nutrition, health, and dental care services to students because many do not have health insurance. This condition was described as: "We find dental care is a real problem. It's hard for the kids to take the CMT [Connecticut Master Test]

when he needs a root canal and he has a year wait to get in to see a dentist" and "The emergency room has now become the primary care for a lot of our folks." These problems are compounded by language barriers because their schools have a large and growing non-English-speaking immigrant population. The multiple problems encountered in urban areas are illustrated by this comment: "I know you've heard it a million times about the urban centers and how we need, need, need - but that's our reality, unfortunately."

Inequities in rural and suburban towns. A common theme among participants from rural and suburban towns is that they "hardly see any disparity at all" and some said they represent a "very homogeneous, affluent community." An education participant explained that there might be isolated incidents, but that generally "students have access to healthcare".

In contrast, a few participants claimed that they are seeing an increase in the number of individuals migrating to their area pursuing inexpensive housing and low paying jobs generally in food service and retail industries. They have little or no personal transportation and live in conditions that could compromise their health and safety.

Participants identified one such group as "young families, two to three kids, single moms living in a one-bedroom motel with a little skillet plate. Consequently, the best thing to eat is either from Burger King down the street or from the food lunch program." In addition, off-season, homes that are not insulated and have rudimentary septic systems on the coast or near lakes, are often rented to lower income families. These seasonal residents were also described as "shopping at little convenience stores. They don't have transportation. They're probably eating a lot more unhealthy food than someone who has transportation to a food store."

Participants from several towns identified recent immigrants and migrant workers as a second group of concern. These individuals were described as often living in crowded conditions that represent a health risk due to fire hazards, stressed septic systems, and unsanitary kitchen facilities. This situation is evidenced by the following comments: "a ranch house that would normally have 3-5 people, they break it up into small little rooms, you'll have 15 people living in that house" or "people living in attics and basements without adequate access or egress" and "40 or 50 people with one kitchen" and "overloaded septic system… with sewage surfacing in backyards." In addition, participants were concerned that these stressful living conditions, long working hours, and poor diets could be harmful to the health of these workers.

Overall, living in rural areas and small towns was considered disadvantageous for low income individuals. One participant enumerated these disadvantages:

Only 65% of our students are in a preschool. We don't have a mental health agency, medical supplies, and no hospitals. We have no public transportation, no taxis, no sidewalks…and that's very difficult for people who are economically disadvantaged. You get into homelessness issues…we've had to rescue…in the middle of the winter, elderly who have some mental health issues, out of tents and cabins in the woods.

Perceived inequities common to urban and Rural areas. Participants believe that some public health issues, particularly those relating to the environment, are common to both urban and rural areas. One example is the remediation and redevelopment of Brownfields sites. Though primarily found in depressed urban areas, they can also be found in suburban and rural areas. Descriptions of these sites include "scrap metal and highly contaminated with acid" and "groundwater pollution and above ground pollution." Lower income residents who are affected by these contaminated properties, often choose to ignore these dangers because discovery of these pollutants may force them to relocate or spend money for clean-up.

Because public safety officials work closely with the public, they are apt to confront health

inequity issues. In addition to their primary charge of protecting the public, they spend a considerable amount of time addressing public health related issues. This is a growing issue with the elderly. Public safety participants who represent towns without public transportation were concerned about the elderly who "may not have the transportation or the family connections to get to their appointments or even to get basic meals. [Their] constant contact is our police department. We check on people every two or three days to see if they are still [alive]." Schools are also on the front line. School officials in all areas agree that they are seeing growing mental health problems with school age children related to stress, autism, and the need for special education classes.

Air pollution was identified as affecting all socio-economic groups, and hence, was not considered a source of health inequity. A land use/housing representative explained that air pollution affects all socio-economic groups because several very affluent communities are along interstate highways and rail yards which have the highest concentrated levels of air pollution in the state. He noted that "This is dramatically different from other indicators like lead poisoning or diabetes which are more concentrated in the low income communities." Furthermore, air pollution is also a problem for small towns if they have a localized industry that "contributes a lot of air toxics."

Perceived Causes of Health Inequities

Perceived personal causes. Participants were asked what they perceive to be the root causes of health inequities. Participants identified some individual, systemic, and policy-related causes of health disparities. Four individual causes of inequities identified by participants were education, immigration status, lack of awareness of health consequences, and low incomes. One participant believes that "education would be a tool to elevate one's self out of that condition" but also understands that it is difficult for some people to get an education because of their long working hours. Illegal immigration status was also mentioned because "fear of being caught is preventing them from going to get proper medical care even if they were sick." A lack of awareness about the health consequences of living in crowded conditions among migrant workers was also offered as a cause.

The majority of participants believed that "income and status in the economic stepladder is a main component to disparity." One reason for the importance of income is choice of residence: "[if] you have the resources to choose where you might want to live, you might choose a cleaner, healthier environment. If you have no choice, you live where you are able to afford to live." Income is also important because it brings access to services.

Perceived systemic causes. Participants cited several policies that they thought may have made health inequities worse.

Historical effects. They cited historical as well as current policies causing disparities in the living conditions of low-income urban residents. One participant described the downtown section of a town in terms of "the old factory buildings, the multiple story apartment buildings along Main Street, the neighborhood in these areas is pretty well on the edge of being blighted. The living conditions are pretty poor [but] it's where people can afford to live."

A city's lack of capacity to redevelop contaminated areas was also cited as one reason for poor quality of life of its residents. One participant stated: "The city inherited ugly, prewar [industrial areas], going back to the First World War. [Industries] have dissolved and left acres and acres of contaminated properties. The city does not have the money to [clean them]." Another participant explained urban blight in terms of "white flight, prejudice - all of these things come together. People flee, no one's living downtown …then you have the blight that starts to happen." Planning policies that created clusters of low income housing are also seen as a policy that created inequities. A participant stated: "we've seen it in redevelopment [of low income housing]. They were clustered together on purpose and that causes disparity."

Road systems. Physical design of road systems and lack of public transportation (especially in rural areas and smaller towns) were associated with increasing inequities because they limited access to workplaces and endangered the health and well-being of individuals in low-paying jobs. A participant observed: "In the past, everybody thought everybody would be able to afford a car. That's not the way it's worked out. You see a lot of people walking and there are no sidewalks. I see them every day with their Burger King or Dunkin Donuts suits on." A related policy cited by participants is the design of a highway system: "…people who work at the malls…walk from [name of town]… We have I-91 as a barrier. Pedestrians have gotten killed because they have to cross exit ramps on I-91 to get to that part of town."

Physical planning. Policies pertaining to outdoor recreation opportunities such as sidewalks, walking and biking paths, and parks/greenways were also seen as affecting health inequities because these opportunities provide safety, facilitate physical activity, and improve quality of life. Participants described a need for sidewalks in terms of safety for the older population ("elderly people with walkers walking in the middle of the street, in traffic, because there is no sidewalk") and for families with children. Anti-blight ordinances were perceived to be beneficial because improving the aesthetics of a neighborhood could improve quality of life of its residents and "encourage people to walk the neighborhood."

Distribution of health services. Inequities were also associated with policies related to health insurance and the distribution of health services. For example, school officials stated that there are few mental health services available in their towns. They feel they need to address the mental health needs of their students, but schools "don't have the proper training or supports to do it [manage mental health problems] appropriately." Their attempts to remedy limitations related to mental and dental health were described as a "patchwork of agreements between the partnerships" and "a haphazard, catch is, catch can, do whatever you can to try to help support families and help kids to be successful in school."

Perceived Importance of Incorporating Health Inequity Concerns

With the exception of some economic development and environmental health participants, most participants believe it is important to incorporate health equity concerns when formulating government regulations and institutional policies, practices, and allocation of resources.

Land use planning. Land-use planners believe that a basic tenet of their work requires them to take the concerns of all community members into account, those more apt to experience health disparities. They stated that they need more input from public health officials in this regard. As one participant explained, "let the land- use people know exactly how the development proposals are going to affect general health."

Education and public safety. Participants representing the education and public safety sectors share a common perspective on the importance of addressing health equity concerns because both groups work directly with the public. Both groups expect difficulties in allocating resources to address health disparities because they struggle to maintain basic services as funding becomes more limited as shown in this quote: "We're not really looking at the disparity. We're just trying to keep our staffing levels at what we need and that's challenging enough right now." They, too, say that though they might not choose to address these concerns, they must, because no one else will. Both groups desire closer collaboration with public health officials.

Education. School officials stated that from a "humanitarian perspective", it is important to include resources in their school budgets to reduce health disparities. However, some questioned whether addressing health inequities was the responsibility of public schools and if so, how much of that responsibility public schools should take on. Nevertheless, they were willing to do so if "health problems get in the way of education" of a child. One participant explained this obligation with

"we owe it to those children to make sure that we provide for them." Other school officials reported that they do include resources in their budget for mental health and social work services. They also reported on several initiatives, such as "school-based health care centers", "family resource centers and after school supports", and "support for special education" that they believe redress health inequities.

Public safety. Public safety officials spoke of how intertwined their work is with public health. They stated that their overall goal is "to make a community well" and that "health and all sorts of issues are part of [policing]." In the context of health inequities, they see themselves as "equalizers" because of state mandates that require them to intervene whenever a person is a danger to him/herself or others. Hence, they are involved in protective custody incidents related to substance abuse, mental health, suicide and domestic violence. Other statutes also require them to be involved in health inspections, housing, and zoning enforcements.

Protective custody incidents, however, were seen as "inefficient" and "addressing just the symptom" because the system is such that they often need to intervene with the same individuals. "People are sent to[hospitals] because they're incapacitated by alcohol. They are held for a brief period and let go [with] no additional services provided. Within another week or two, we're dealing with them again." Moreover, participants reported that a large proportion of their resources are tied up with medical calls as described by one participant: "a lot of times I won't allow the last truck to go to medicals because there's nobody left for fires. It just gets more and more [like this] every year." Another participant reported: "One engine company is tied up all the time. They go six times a day to this one place [older adult housing complex] on average."

Economic development and environmental health. Participants representing the economic development and environment sectors have similar perspectives about the lack of relevance of health equity concerns. A participant stated: "They [municipal officials] are not thinking about how they can ensure that all residents are healthy. They are thinking about balancing a budget, funding schools, police and fire/EMT departments." Economic development specialists believe that health equity concerns are not generally an issue they deal with directly because their main charge is "getting development that provides jobs in their towns." However, participants believe that their projects "ultimately lead to health" though they are quick to emphasize that health and health equity are not their primary objectives.

They mentioned three possible areas where improvements in health and health equity may be secondary outcomes. The first concerns Brownfields economic redevelopment projects that "eliminate or try to eliminate potential and existing health hazards." The focus of these projects is to increase the "quality of life in a particular neighborhood. The focus isn't health disparities..." A participant added: "we don't make a conscious effort often times, to create programs that directly [address health], but indirectly I think that we do." The second area of possible improvement concerns a mandate for municipalities receiving federal and state grants to allocate a portion of a grant to "involve health and the monitoring of it." The third area is housing and land-use/smart-growth initiatives. Some participants described successful housing programs while others described smart-growth policies which include "planning environments that are walkable" and which may improve health.

Environmental specialists agree that health equity concerns are not generally an issue for them either, except for the health consequences of pollution remediation at Brownfields sites and the creation of open space in high-density areas. Participants saw that their ability to affect health inequity is limited because most environmental regulations are set at the state or federal level. The one area where they might have some impact on health is the local housing code. However, they noted that they will not be able to accommodate new initiatives because current budgets are

"bare-boned." They also raised the difficulty of factoring in health issues when choosing between funding alternatives. Other participants believe that they already address health inequities in that "in everybody's budget there's some function, dollars related to it, that deal with the environment or the health conditions of the individual."

Benefits, Barriers and Facilitating Factors to Working with Directors of Health

Participants were asked to discuss the perceived benefits and barriers faced by municipal officials, volunteer commission and board members, and salaried municipal department heads when working with directors of health to address the causes of health inequities.

Benefits. Participants in four of the five focus groups believe that it would be beneficial to work with public health officials to address the causes of health inequities. Education participants believe better coordination could bring "more funding," "more effective use of resources" and "eliminate duplication of effort." Some education participants also noted that health departments have provided very helpful advice when disease outbreaks occurred in their schools, though other participants stated the opposite about part-time health departments. Public safety participants stated that some issues are best spearheaded by public health. They reported that when "there are unsanitary problems or health issues, we've called our health department in and used the teeth of the statute that they have to get people out or get people healthy or safe." Housing and land-use participants believe that public health officials ought to expand their involvement to include how land use, including open space, can affect air quality in the immediate vicinity of a proposed development. Environmental focus group participants believe that identifying and addressing health inequities will require collaboration with department heads from other disciplines (including environment).

Participants in the economic development focus group were the only ones who did not express a need to work with public health, though they did say it would be beneficial for them to know more about public health concerns. They reasoned that economic development "by its nature…necessarily eliminates or tries to eliminate potential health hazards." As mentioned earlier, they are more focused on job creation. Moreover, they acknowledged that whether economic development could also result in a healthy community is "always a challenge for us."

Barriers. Participants mentioned several barriers to working with health departments. Focus group participants as a whole perceive the mandate of public health to be primarily regulatory and feel that this needs to change. Descriptors of the health departments include: "basically focused on going to restaurants and doing the health inspections," "issuing permits for septic systems," and "they are an enforcement agency as opposed to a collaborative partner." In addition, some participants commented that the health departments seem inordinately focused on disaster and emergency preparedness and not on "everyday health problems." Some participants questioned whether health departments could be equal partners because "they kind of decide where their priorities are."

Participants also doubted the feasibility of expanding health department functions because health departments are perennially "understaffed, over worked, underfunded." A town has limited resources to fund new health-related projects because, according to one participant, typically only "80% of the 5%-8% of a town's budget allocated for all social and administrative services" is for public health. The majority of a town's budget is for schools, public safety, public works and transportation departments.

Facilitating factors. Participants identified factors that would facilitate working with health departments. The first concerned educating town/city administration about the structure and function of public health because a "lot of them don't have a clue what it's about." The second concerned familiarity with projects' impacts on health. As one participant noted: "We would have that health perspective that we may not have right now." Third, participants feel that public health officials need to "identify disparities in a community and get municipalities to understand disparities better."

Finally, they feel that public health officials need to take the initiative to reach out to organizations in other sectors. In particular, they need to get involved while a regulation is being drafted and not after the regulation has been passed, as is commonly the case now.

Ways of Communicating Information about the Causes and Potential Solutions of Health Inequities.

Chief Elected Official (CEO) leadership. Respondents described several mechanisms they thought would work best to spread information and address the causes of health inequities in their jurisdictions. A recurrent theme in the discussion was the need for agencies to "get together and have an opportunity to communicate and help each other understand what it is that they do and the issues that are on the table." When asked who would initiate getting the groups together, the predominant answer was a top-down approach originating with the CEO of the city/town. The rationale for this choice is evident in the following quote: "once the chief elected official buys into it, it makes everything a lot easier because he can deal with his administration, with department heads and the leadership of the council."

Participants also enumerated other requirements for the CEOs. CEOs must provide a "mission statement" that all departments accede to. They will need to promote a philosophy of government that takes a "holistic approach" that incorporates "economic sustainability" with "environmental aspects" and "quality of life" for all citizens. They will need to create a culture of collaboration. A suggested mechanism was: "we should have interdepartmental contracts so that we set benchmarks of what [each department] is going to do, and a quarterly review of those benchmarks." Another approach is to have CEOs sit on the boards of health districts as a means of keeping the communication between the town and health districts open. Once multi-disciplinary collaboration becomes the norm, the CEO can reduce his/her role. Participants recognized that top-down approaches by political appointees are often not as sustainable as mid-level, more institutionalized approaches.

Roles of local health departments. Another theme concerned the importance of the directors of health departments (DoHs) in bringing representatives from the various sectors together and incorporating health perspectives in plans and programs. The directors were expected to take the lead, be "proactive" at "getting [policy makers] to understand all the [social] problems in their community." They also feel that public health officials need to learn how to facilitate cross-disciplinary planning. As one participant stated: "[when] you're making your plan for the future of community, you [need to] factor in health impacts in your assessments." DoHs should be involved in "most of the steps during the planning and review process", "identify indicators we should be incorporating" in a town's ten year master plan, statutes or projects, and provide data that planners can use to ensure that their proposals lead to improvements in health equity in their communities. Finally, there was also a suggestion that DoHs bring forward the most important health equity issues that a town could directly address on its own.

Participants feel that DoHs need to familiarize themselves with work being done in other sectors so that they can see how the issue of health inequities might fit with other agendas. They would do this by initiating or participating in multi-sector committees. Participants cited examples of how regular meetings with departments heads led to good working relationships and successful multi-department social service programs such as mobile mammography buses, flu shot clinics, transportation and meals for the elderly, and programs to encourage physical activity.

Participants feel that public health officials need to take on more of an educating role and that a monthly town newsletter might be a good way to disseminate information about public health issues. They also feel that public health officials are the ones to spearhead efforts to increase awareness of health disparities. Participants suggest that a series of multi-disciplinary workshops be

conducted for public health officials and officials from other relevant disciplines to learn how their work overlaps and how collaborative efforts may be developed to "explore ways that health concerns can be incorporated into the comprehensive planning process."

Limits to collaboration. Although there was a strong consensus for departments to work together, participants also identified several barriers. The first barrier identified was jurisdictional. One participant explained that collaborative agreements with health departments are difficult to achieve because health departments have regulatory authority over municipal governments. Collaborative agreements with health departments, in effect, require "them to subordinate state jurisdictions at the local level and that's a big problem." Another participant stated: "The mayor or selectman can ask for whatever he wants; [but] ultimately, the Health Departments trump you." In addition, participants noted that collaboration is sometimes thwarted by state regulations as described in this comment: "We can come up with the best groups in the world but if the state says you will do it this way and we're trying to work around it; that in itself is a job."

Finally, some participants commented that redressing health inequity cannot be done at the local level only, as shown by this comment: "[Health equity] is a huge question that we're not equipped to do. [It needs] public policy at state/federal level to change [the] healthcare [system], eating habits and so on." Likewise, working together is unlikely to remove inequities as shown by this comment: "We can't do it all and we have partnerships with anybody that will scrape up a dime, but I think what we need is larger than the collaborations that we can do."

DISCUSSION AND RECOMMENDATIONS

This study assessed levels of knowledge of health inequities, the willingness of key municipal officials to work with LHDs, and their preferred modes of collaboration and communication. The findings are discussed in the context of communication strategies to be implemented by local health officials. The key elements of a communication strategy include target beneficiaries, target audiences (opinion leaders and stakeholders), message development and communication channels. The ultimate goal of the communication strategy is to enhance inter-agency collaboration and thereby reduce health inequities affecting local communities.

Target Beneficiaries

Consistent with other research findings, participants identified populations they perceive to be more vulnerable to health inequities than other groups. They include individuals and families who live in urban settings and have lower socio-economic standing; in particular, residents of blighted neighborhoods, public school students, persons with mental health and substance abuse issues, and the elderly (Althoff, Karpati, Hero, & Matte, 2009; Neckerman et al., 2009.) In addition, helping lower socio-economic groups in rural and suburban areas might be an aim; in particular, immigrants or migrant workers in low paying service jobs and the elderly (Siddiqi, Zuberi, & Nguyen, 2009).

Primary Target Audience – Opinion Leaders.

Chief Elected Official (CEO). The preferred primary target audience of the communication strategy is the CEO of the various cities and towns in the state. They should spearhead initiatives for increasing awareness about health inequities and developing collaborative efforts among town officials to address health inequities. For this collaboration to succeed, the CEO will need to define clear and realistic expectations and cultivate a culture of collaboration (Roussos & Fawcett, 2000). They will need to promote a philosophy of government that focuses on improving the quality of life of all citizens. At first, they will be the ones to coordinate collaboration between public health officials and other town officials (other department and commission heads). The outcome of these efforts will indicate to public health officials the extent that local government officials are committed to addressing health inequities.

Local health department officials. LHDs advocating health equity initiatives will have to persuade other LHDs, their governing boards, community partners, and the state health department, to include health equity advocacy as a key mission. LHDs are the ones to see that the causes of health inequities are addressed. They will need to familiarize themselves with work being done in other sectors so that they can see how the issue of health inequities fits with other agendas. One effective way to do this may be to hold a series of multi-disciplinary workshops with public health officials and officials from other municipal departments and organizations to learn how their work overlaps and how collaborative efforts may be developed to address health disparities. Presenting results from the focus groups may help stimulate discussion at these workshops. This information should also help LHDs better understand their potential partners' motivations and limitations and help them shape their approach to working with these partners. LHDs involved in health disparity advocacy work will need solid data about health inequities to support their arguments. They will need to examine state regulations so that they facilitate inter-agency collaboration.

Secondary Audience – Stakeholders/Strategic Partners

School officials and public safety officials are among the most important stakeholders/partners who LHD officials can collaborate with. Both groups work directly with populations most vulnerable to health disparities on a daily basis. Additionally, both groups believe that public health-related work is a necessary part of their job and desire collaboration with public health officials. Partnering with land-use/housing, environmental and economic development officials is essential because they oversee policies and programs directly related to social determinants of health. However, participants from these sectors appear to be reluctant to directly address health inequity issues.

Message Development for the Target Audiences

Messages to increase awareness of health inequities and its causes. The thematic assessments suggest that there is a need to create more awareness as well as a common perspective among local government officials about health inequity and its root causes (Plough, 2006). Although education and public safety officials, especially from urban areas, were well aware of health inequities, they remained focused on filling the gaps in social services to resolve health inequities in their towns. Land use planners, environmental specialists and economic planning participants were aware of the inequities in housing, environmental health, and physical access to workplaces. However, they seemed to have only a general notion of how these impacted health. Some participants, who perceive their town's population to be relatively homogenous, seemed unconcerned about health inequities. These themes suggest that the understanding of health inequities is uneven.

Consistent with several studies, participants understood that low income status, is a main causes of health inequities (Olafsdottir, 2007; Shi & Stevens, 2005). They agreed that low incomes limit opportunities to live in good neighborhoods and homes, to acquire health care, attend good schools, and access employment opportunities. There was also some understanding that government policies regulating the distribution of health services, the physical layout of cities/towns, open spaces, and the design of roads/sidewalks could limit access by low income individuals to workplaces, health services, healthy food supplies, and recreational opportunities. However, some participants attributed health disparities to individual factors. More understanding of the causal link between the environment, economics and health may help town officials overcome their reluctance to consider health inequity outcomes in their plans and programs.

Messages about the benefits of collaboration. Messages to persuade local governments to collaborate could build on several sentiments expressed in the focus groups. First, there is a strong belief, especially among public safety and education officials, that government has an obligation to correct these inequities. Second, for the most part, participants had positive views about the need to form collaborative partnerships with LHDs to begin to eliminate health inequities in their communities. Positive sentiments based on prior working experience are an important element for

the formation of collaborative partnerships (Roussos et al. 2000). Third, persuasive messages can build on participants' sense of urgency. Many participants believe that the problems they spoke about are on the rise and yet the resources to resolve these problems are ebbing.

Messages to build credibility of local public health departments. Messages need to be formulated and promoted to improve the image of LHDs as an equal, willing and capable partner. First, LHDs need to increase awareness of how public health supports their local communities (Plough, 2006). Emphasis should be put on public health functions related to public safety, education, land-use/housing, environment, and economic development. This information may help dispel the perspective that LHDs are primarily regulatory bodies (Plough). Next, LHDs will need to demonstrate their willingness to participate in preparing municipal plans, in reviewing programs and projects prior to their approval, and involve colleagues and community representatives when formulating LHD programs. The latter action may help counter the perception that LHDs tend to dictate the health program priorities of a municipality.

Third, LHDs need to clearly embrace their advocacy work on health inequities. They can publicize this fact initially, through their mission statements, and by including social determinants as a framework when describing disease risk factors in their information materials and education programs (Plough, 2006). Plough also suggests LHDs should be willing to advocate for regulations and programs that promote "adequate and affordable housing, anti-discrimination laws, public transportation and the reduction of urban sprawl" (p.62). These acts will show LHDs commitment and leadership in redressing health inequities in their communities.

Finally, the perception that LHDs are limited because they are understaffed and underfunded and that they are bound by state mandates and priority programs (e.g., emergency preparedness), are not easily reversed, especially in the current economic and political climate. To revise these perceptions, LHDs need to obtain grants or devise innovative ways to use current funding for health equity initiatives. LHDs should also advocate for more decision-making authority and funding from state government for health equity programs (Plough, 2006).

Communication Channels
The communication strategy should employ multiple communication channels. In the initial informational phase, face-to-face discussions should first be initiated with state and local health officials about the need to adopt health equity advocacy as a critical function. When these officials are on board, the next step is to conduct presentations about health equity and the functions of public health at meetings of appropriate professional organizations (professionals involved in public safety, education, land-use/housing, environmental management, and economic development). Presentations should be customized for the audience being addressed (e.g., presentation to public safety officials should describe how public safety decisions impact the health of communities). Informational material supporting these presentations should be disseminated at the presentations, mailed to other stakeholder/strategic partners, and placed in LHDs websites.

Once these efforts have been completed, public health officials will need to take on a continuing education role. A web-accessible monthly town/district newsletter and web-based and printed instructional materials on incidences and severity of health inequities would be a good way to establish awareness, interest and basic knowledge about health inequities among stakeholder/strategic partners.

As the informational phase matures and stakeholders/strategic partners are sufficiently knowledgeable, efforts can be refocused to address the motivational phase of the communication strategy. In this phase, efforts should center on forming collaborative partnerships with stakeholders/strategic partners. As stated earlier, the CEO will initiate the collaborative process and public health officers will take over the leadership role once all the strategic partners are meeting regularly.

CONCLUSION

A communication strategy to reduce health inequities in municipalities should aim to increase awareness of the causal links between local government policies and programs and health status of vulnerable populations in their communities. Participants preferred that the CEO and LHDs lead efforts to address health inequities in their municipalities. For collaborative efforts to work, LHDs need to make public health functions more explicit, provide solid evidence of health inequities and its causes, and demonstrate they have the commitment, financial and jurisdictional capacity to lead.

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