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DISSERTATION PROPOSAL

The Public Library as Health Information Resource? An Exploratory Case Study

Mary Grace Flaherty
mgflaher@syr.edu

Chair/Advisor:	Carsten Østerlund
Committee:	Catherine Arnott Smith
	Barbara Kwaśnik
	Murali Venkatesh

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ABSTRACT

Public libraries have approached the role of health information provider in a variety of ways. Some subscribe to health databases and sponsor access to patrons. There are some that simply provide a link on their homepage to a recognized consumer health resource such as MedlinePlus. Some have gone so far as to establish consumer health information centers (American Association for the Advancement of Science, 2002). Others have created outreach programs to serve their communities' health information needs (Chobot, 2003). Yet some are reluctant to take on the role of health information resource provider (Flaherty & Luther, 2011; Smith, 2010). In addition, even though public librarians are regularly responding to patron queries regarding health, there are few who are trained in finding and evaluating medical information (Gillaspy, 2000; Linnan et al., 2004).

The proposed case study will build upon two cross-sectional surveys of health information provision practices in rural public libraries. Using new institutional theory as a guide, the organizational factors that influenced the establishment of a consumer health resource center within a library system in rural Upstate New York will be explored. This center offers a singular opportunity to better understand how this type of organizational commitment evolves. By investigating this exemplary case through a comprehensive analysis using documents, interviews and observation, an attempt will be made to discover what decision-making processes and organizational influences led to this type of approach for health information provision.

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CHAPTER 1 Problem Statement

Background

In this age of increased electronic access, patients and health care consumers have more opportunity than ever before to obtain information regarding all aspects of their health care. In 2010, approximately 80% of American Internet users searched for health information online. According to the Pew Research Center (2011), this signifies that 59% of all adults have gone online to search for information on a health topic. Health care consumers aren't always adept at finding accurate and reliable information; however, many health information seekers start with a search engine and do not check the date and source of the information they obtain (Pew, 2008). Additionally, once individuals encounter health information, they may not have adequate knowledge or ability when it comes to evaluating the authority and quality of health information that they do find (Eysenbach & Kohler, 2002). In fact, some individuals have significant misconceptions about health issues after they've located inaccurate information online (Kortum, Edwards, & Richards-Kortum, 2008).

Health care can be enhanced when patients are well-informed about their conditions. Patients' taking the initiative to obtain their own information has been linked with improved outcomes (Roter, 2000). The key here is "well informed." With an ever-increasing emphasis on self-care and patient/consumer responsibility for health, and an escalating amount of all types of information available, many individuals are in need of support and guidance when it comes to

accessing and using health information resources effectively. Unlimited access to health information and databases that were available only through intermediaries (e.g. librarians) just a short time ago are often now free and widely available. This has opened up a world of information to anyone with a computer and an internet connection.

There are many outlets or avenues for accessing and locating health information, one of which is the public library. According to the Institute of Museum and Library Services (IMLS) (2010), approximately 1 in 5 public library visits involves a reference transaction. The number of reference transactions has decreased over the past ten years, however. The IMLS attributes this decline (from 1.12 transactions/capita in 1999 to 1.02 transactions/capita in 2008), to increased use of the internet by the public, and point out that it is likely patrons use the internet to answer simple questions, and rely upon library staff for more involved queries that require more expertise and experience. There is not much data available delineating specific topics of reference queries asked at public libraries, but some studies have shown that health information seeking and provision is taking place. In one study, 60% of respondents reported that public libraries were among their preferred resources for health information (Deering & Harris, 1996). In North Carolina, a statewide study found that on average, public librarians responded to more than 10 health-related queries per week (Linnan, Wildemuth, Gollop, Hull, Silbajoris & Monnig, 2004). In rural upstate New York, between 10-20% of patron reference queries annually were estimated by library staff to be health related (Flaherty & Luther, 2011; Flaherty & Roberts, 2009). A recent study by researchers at the University of Washington found that 37% of public library internet users searched for health information (Becker, Crandall, Fisher, Kinney, Landry & Rocha 2010).

Public libraries have approached the role of health information provider in a variety of ways. Some subscribe to health databases and sponsor access to patrons, either on-site or through their websites. There are some that simply provide a link on their homepage to an established consumer health resource such as MedlinePlus. Some have gone so far as to establish consumer health information centers or resource centers (American Association for the Advancement of Science, 2002). Others have created outreach programs to serve their communities' health information needs (Chobot, 2003). On the flip side, there are some who are reluctant to take on the role of health information resource provider (Flaherty & Luther, 2011; Smith, 2010). In addition, even though public librarians are regularly responding to patron queries regarding health, there are few who are trained in finding and evaluating medical information (Gillaspy, 2000).

For many people, public libraries are viewed as a logical place for provision of health information. In the recent report, *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries*, researchers state: "Public and private health officials and organizations should support the public library as a partner in disseminating health and wellness information and as a resource for future health communications research" (Becker, et al., 2010). This is not a new idea, when it comes to the dissemination of consumer health information, the importance of collaboration between governmental and health agencies and information hubs such as public libraries has been discussed in the literature (Calvano & Needham, 1996; Guard, Fredericka, Kroll, Marine, Roddy, Steiner & Wentz, 2000; Martin & Lanier, 1996; Spatz, 2000). In order to be effective in this partnership, there is a need for a better, more thorough

understanding of how public library staff approach their role when it comes to providing access to health information.

This chapter continues with a look at rural communities and their particular status related to health. The theoretical perspective that informs the study is then briefly introduced, continuing with the purpose of the study and specific research questions, followed by the significance of the proposed research. The chapter concludes with a summary and description of the remaining chapters. Definitions of key terms, including: rural library, public library, public library system, central public library, and consumer health information, are included in Appendix A.

Health information and rural public libraries

According to *American Libraries* (2011), the majority of public libraries (88%) in the U.S. serve populations of 50,000 or less; more than half are chartered to serve populations of fewer than 10,000. In the case of rural communities, the public library may be the sole local information center for health information provision. Some of these libraries are not professionally staffed, and there are differing levels of expertise when it comes to knowledge regarding the use of the Internet and health information. Also, many small communities are devoid of institutions such as public health departments, free clinics and emergency rooms, even doctors' offices. In ten per cent of rural counties in the U.S., there is no primary care physician (Gamm, 2010). Thus, residents in rural areas may have limited opportunities in terms of health information exchange. In New York State there are three counties without a hospital, while in every county there are at least four libraries (New York State Department of Health, 2011; New York State Division of

Library Development, 2011). This may inadvertently place a responsibility upon public library staff to provide authoritative and high quality health information.

In terms of health status, rural residents can be at a disadvantage. Rural residents are more likely to be uninsured, to have lower incomes, and to be older than those residing in metropolitan areas (U.S. Census Bureau, 2010). Rural residents have a higher likelihood of suffering from a chronic illness such as hypertension, chronic bronchitis, and cancer (Gamm, 2010). Twenty-three per cent of the U.S. population lives in rural areas (US Census Bureau, 2009) and nearly 78% of all libraries in the U.S. serve rural populations (Van Orden & Olszewski, 2011). Thus, public libraries that serve rural populations may have an opportunity to have a positive impact when it comes to their communities' needs for consumer health information. "With more than 16,600 locations serving people of all ages in communities of all sizes, the nation's public libraries have a wide reach and a vital mission to connect people with the resources they need" (American Library Association, 2010).

As patrons are clearly using public libraries for their health information needs, (Linnan et al., 2004; Flaherty & Roberts, 2009) it is important that we have a better understanding of how these libraries approach their role with regard to health information access and provision.

Theoretical perspective

Public libraries are first and foremost institutions. Located in communities throughout the United States, public libraries do not operate in a vacuum. There are a number of factors that influence their missions and functioning. Historical beliefs and expectations of service play a

role. Different actors, including the staff, the library board and governance structures, the community, professional organizations, and regulatory agencies, exert influence on the organization.

Institutional theory attends to "processes of mutual influence among organizations" (DiMaggio, 1991, p. 267). According to Scott, institutional theory looks at the "deeper and more resilient aspects of social structure. It considers the processes by which structures, including schemas, rules, norms, and routines, become established as authoritative guidelines for social behavior" (Ritzer, 2005, p.408). While proponents of "old" institutional theory placed an emphasis on organizations as they were situated within local communities; new institutionalists view environments as having a broader realm of influence and as penetrating organizations. New institutionalists focus more on the wider systems of relationships and societal influences imposed upon organizations (Scott & Meyer, 1994).

New institutional theory has been used effectively to inform our understanding of a variety of institutions in the United States, including education, health care, and art museums (Meyer, Ramirez & Soysal, 1992; Scott, Ruef, Mendel & Caronna, 2000; DiMaggio, 1991). In many respects, the public library operates in a somewhat similar fashion as these institutions. Our knowledge of the function of the public library can be enhanced by examining elements of organizational processes and influences identified by sociologists using new institutional theory as a conceptual framework. Specifically, an examination of elements that influence organizational behavior, including the identification and analysis of organizational fields and how those fields exert influence (vertically and horizontally, as well as formally and informally)

can provide insight into public libraries' response to their environments and communities with regard to service provision.

The organizational field is defined as "those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products." The structure of the organizational field is determined through empirical investigation (DiMaggio & Powell, 1991, p. 64-5). In the public library milieu, the following primary groups may be included in the organizational field and will be explored:

- Organizations with governing and/or funding authority
- Professional associations
- Service and materials providers (to library)
- Other service providers in community
- Community groups
- Library staff
- Patrons/consumers

Examination of professionalization of librarians and library staff may further allow us to understand the institutional forces at play in public libraries, especially with regard to differences in role expectations and service to patrons. DiMaggio & Powell (1991) cite Larson (1977) and Collins (1979) as informing their interpretation of the term professionalization. The elements of their interpretation that will be utilized are: the collective aim of members of a particular occupation to define the methods of their work, and the effort to establish a "cognitive base and legitimation for their occupational autonomy" (DiMaggio & Powell, 1991, p. 70). This term will primarily be used as it relates to the field of librarianship and the difference between workers who are classified as "librarians" (possessing a Master's level degree in library and/or

information science) and those who do not possess the terminal degree, or "library staff." In New York State, to possess a public librarian's certification, one must possess the equivalent of a Master's degree in library and/or information science (New York State Division of Library Development, 2011).

Empirical considerations and research approach

Preliminary research studies were undertaken in 2010 and 2011 to explore consumer health information provision in public libraries in rural Upstate New York. We found a wide range of service and quality of health information provided by rural library staff. In one public library visit, when the staff member was asked an involved health query ("do vaccines cause autism?") s/he responded, "We're only a lending library, mostly fiction, you probably should go to the local community college where there's a nursing program." Yet, in other libraries, staff referred to the central library's medical librarian when presented with the same query. This wide range of service provision leads logically to the question, how do certain practices become "institutionalized" in an organization?

Public libraries have adopted a variety of different approaches when it comes to supplying health information to their communities. An example of an extreme, perhaps even ultimate, commitment of a public library's determination to meet consumer health information needs may be the establishment of a consumer health resource center (CHRC) within the library. These seem to be relatively rare. In Upstate New York it appears there is only one currently operating in a central library. This center offers a singular opportunity to better understand how this type of organizational commitment evolves. To uncover the organizational factors that led to the

decision to create a consumer health resource center, an in-depth and holistic approach is necessary, using a variety of data collection techniques, such as is afforded with an exploratory case study.

Using the case study approach, the unique circumstance of a consumer health information resource center that was established within a central library in a public library system will be explored. The library system serves thirty-four member libraries, most of which are located in rural communities. Twenty-nine of the member libraries serve populations below 10,000, with a range of 132 to 8437. The median for chartered population served for all libraries is 3651. The resource center was established seven years ago and has been functioning since that time, staffed by a medical librarian. By investigating this exemplary case and some of the member libraries that it supports through a comprehensive analysis, an attempt will be made to discover what decision-making processes and organizational influences led to this type of approach for health information provision.

Purpose of the study

The motivation behind this research is a better understanding of how rural public libraries engage with the consumer health needs of their communities, and in particular, what triggers the kind of attention and commitment associated with establishing a consumer health center? Why did the organization choose this method of service provision? How does such a center become part of a library's basic services? Based on these general queries, the research questions that will inform this understanding are as follows:

- ***RQ1***: What organizational factors are associated with the creation of a consumer health resource center (CHRC) within a central public library?
- ***RQ2***: How did the organizational field influence the central public library with regard to adoption of a consumer health resource center (CHRC) as a service?
- ***RQ3***: How does professionalization of librarians influence an institutions' adaptability to provide consumer health information?

Significance of the Study

In the United States 17.6 % of the Gross Domestic Product (GDP) was spent on health care in 2009, which represents 2.5 trillion dollars or $8,086/person. That amount represents an increase from 16.6% of the GDP in 2008 and is projected to increase to 19.3% of the GDP by 2019 (U.S. Centers for Medicare and Medicaid Services, 2011). As the cost of health care escalates, different avenues for maintaining health and preventing illness are gaining interest in the health care arena.

Patrons have stated that the information regarding their health found in public libraries was valuable and affected their health care decisions (Chobot, 2003). In one recent study of a public library in Great Britain, 27% of the users interviewed cited the public library as the top source for health information. Significantly, 63% claimed to trust the library either somewhat or completely, second only in terms of trust to the respondent's personal physician. The study also found books (whether loaned or used within the library) to be the most frequently consulted health resources, the internet being a distant second (Harris, Henwood, Marshall & Burdett, 2010). While this study was conducted in another country, the findings echo those of studies in

the United States, particularly with regard to use of the public library for trusted health information and resources consulted (Chobot, 2003; Deering & Harris, 1996).

Because the public library is a highly regarded and trusted institution, ideally, it should be tasked with providing the best possible information available. A preliminary study of rural public libraries in New York State demonstrated that many library staff are using outdated sources and materials such as non-fiction autobiographies, and presenting these as authoritative reference sources when asked a specific health query (Flaherty & Luther, 2011). These results (described in further detail in chapter four) point to a need for a better understanding of how public libraries are approaching health information provision in their communities. Through extensive analysis, this case study will inform the library community about the decision-making processes and organizational factors involved with regard to one approach to health information service provision.

Summary

In the United States, public libraries continue to play an important and vital role within their communities, not only as meeting centers but also as information resource providers. In this era of increasing access to all types of information, there is a need for exploration of the best ways to provide the public not just with access but, when necessary, with assistance in evaluating the information they do encounter. When it comes to health information, there is a wide spectrum of sources available, ranging from high-quality, authoritative resources to misleading misinformation. The goal of this research is to have a better understanding of the organizational factors that influence health information provision in rural public libraries.

The chapters that follow will discuss the proposed research study in more detail. Chapter two will explore the theoretical framework more thoroughly, with a discussion of new institutional theory and how it can help inform research in public libraries. Chapter three will attend to methodological issues and includes a discussion of case studies and case selection, procedures for data analysis, and ways to assure validity. Chapter four will summarize pilot study results of two separate studies that have informed the research proposal.

CHAPTER 2 Theoretical Foundation

Background

In cities, towns and villages throughout the United States, public libraries are a common feature of the landscape and an important component of the foundational bedrock of communities. Public libraries are deeply rooted in society and are an integral part of the social fabric. In an environment increasingly driven by access to information, as organizations, public libraries are tasked to continuously adapt to changes in their communities and society at large. Ideally, public libraries can play a leading role not only in providing access to all types of information resources but also in taking the initiative to provide innovative services while remaining responsive to their constituents.

With over 16,000 library locations throughout the country, there are few establishments that are as firmly institutionalized in communities as the public library. In order to inform our understanding of public libraries' function and adaptability, we can turn to institutional theory to help provide a conceptual framework. In particular, an examination of elements that influence organizational behavior, such as organizational fields and professionalization, may aid in our recognition of factors that affect decision-making and service provision in public libraries.

Chapter one introduced the proposed research and gave an overview of health information access and provision in rural public libraries. We return to the research questions here:

- ***RQ1***: What organizational factors are associated with the creation of a consumer health resource center (CHRC) within a central public library?
- ***RQ2***: How did the organizational field influence the central public library with regard to adoption of a consumer health resource center (CHRC) as a service?
- ***RQ3***: How does professionalization of librarians influence an institutions' adaptability to provide consumer health information?

Institutional theory can help provide the necessary framework to address the research questions. What follows is a discussion of institutional theory, the organizational field and isomorphism. A brief historical background of public libraries in the United States and their role as institutions is presented, with attention to the organizational field and professionalization. Development of new services and adaptability are discussed with consideration of institutional isomorphism. Health information in public libraries is introduced, with attention to historical elements and the rural setting. The chapter concludes with a plan for applying the theory in terms of health information service provision in rural libraries.

Institutional view

Institutions are ubiquitous within society; one need not look very far for examples. The customs of marriage and/or handshakes have been described as institutions, as have financial entities, such as banks or the stock market, and educational outlets, such as universities and schools. The Merriam-Webster dictionary (2011) defines an institution as "a significant practice, relationship, or organization in a society or culture" and as "an established organization or corporation especially of a public character." Scott (2008) delves deeper to provide us with an "omnibus conception of institutions: Institutions are comprised of regulative, normative and cultural-

cognitive elements that, together with associated activities and resources, provide stability and meaning to social life." (p. 48) DiMaggio and Powell (1991) state "they (institutions) are first and foremost products of human actions" (p. 28). As the definitions imply, institutions can be examined from different angles, as they tend to exist on three levels in society: as cultural abstractions, as social structures, and as groups of actors or individuals working toward a common goal.

Another way to consider institutions may be by examining the role they play within society, or more specifically, by posing the question: what do institutions do? Institutions have a variety of overlapping roles, they: create expectations on the part of actors and help to manage expectations and shape actions; they also typify actors and actions in keeping with those expectations. They contribute not only to the identity of professionals but they help to define our societal and individual identities as well. Institutions lend stability, patterns, and role categories, and respond to community needs by agents taking action.

Institutional theory

According to DiMaggio (1991), "Institutional theory focuses on processes of mutual influence among organizations" (p. 267). As quoted in the Encyclopedia of Social Theory (Ritzer, 2004, p.408) Scott states, "Institutional theory attends to the deeper and more resilient aspects of social structure. It considers the processes by which structures, including schemas, rules, norms, and routines, become established as authoritative guidelines for social behavior. It inquires into how these elements are created, diffused, adopted, and adapted over space and time: and how they fall into decline and disuse."

While the focus in "old" institutional theory literature and applications was primarily related to individual agency and power, new institutional theorists tend to explore the stability of institutions. DiMaggio and Powell (1991) point to another basic difference between the two institutionalisms: how they view the environment. The proponents of old institutionalism characterized organizations as situated in local communities. The new institutionalists see environments as having a broader realm and as penetrating the organization. There is a greater emphasis on the wider systems of relationships and the societal influences imposed upon organizations (Scott & Meyer, 1994). For the most part, this discussion will concentrate on the aspects attended to by the new institutionalists, as most current research is situated within that framework.

Organizational Field

DiMaggio (1991) outlines the concept of the organizational field in his landmark piece: *Constructing an organizational field as a professional project: U.S. Art museums, 1920-1940.* He used an archival case study to examine what he describes as three overlooked features of the institutionalization process: models of diffusion, tensions within the process, and the phenomenon that most conflict occurred not among professionals within or inside organizations, but rather at the field level. DiMaggio posits that in order "to understand the institutionalization of organizational *forms*, we must first understand the institutionalization and structuring of organizational *fields*" (p. 267). The organizational field is defined as "those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and

product consumers, regulatory agencies, and other organizations that produce similar services or products" (DiMaggio & Powell, 1991, p. 64-5).

In order to better describe the concept, we will turn to Caronna's (2004) summary of the types of actors from Scott's description of the organizational field of American health care. These organizations are all situated within a broader institutional environment and include:

- Organizations with authority to govern
    - corporate systems, professional associations and public agencies
- Purchasers
    - employers, individuals, government programs
- Providers
    - physicians, health care staff, hospitals, health care systems
- Intermediaries
    - health plans, insurance plans

By using this delineation and description of the organizational field, we have a clearer and more accessible picture of a very complex entity: the structure and functioning of the American health care system. It should be noted that some of these actors are in competition with each other, for example, clinics and hospitals are trying to maximize their profits while intermediaries are working to minimize their expenditures. Thus, there are tensions and complicated interactions between the actors. Additionally, depending upon the organization, some considerations when examining the organizational field might include differences by region or state, or areas within states. There also may be unique local contingencies that affect the organization's function.

The field can exert pressure on institutions or organizations, making them similar to one another. DiMaggio and Powell (1991) argue that "highly structured organizational fields provide a

context in which individual efforts to deal rationally with uncertainty and constraint often lead, in the aggregate, to homogeneity in structure, culture, and output" (p. 64). They refer to Hawley's description of isomorphism to explain the process whereby organizations become similar. "In Hawley's (1968) description, isomorphism is a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions." They assert that "the concept of institutional isomorphism is a useful tool for understanding the politics and ceremony that pervade much modern organizational life." (DiMaggio & Powell, 1991, p. 66) They go on to describe three processes or types of pressures that enable institutional isomorphism to occur: coercive isomorphism (related to political influence and legitimacy); mimetic isomorphism (stemming from reactions to uncertainty); and normative isomorphism (connected to professionalization).

Coercive isomorphism is due to the formal and informal pressures placed upon organizations by other organizations that they answer to and by societal expectations. Sometimes these pressures are in the form of legislation (e.g. civil service requirements for hiring). Other times they are much less circumscribed, and may take place in the form of adoption of a new procedure for performing a task or providing a service (e.g. health information provision or self-service book check-out in libraries). Mimetic isomorphism refers to the tendency of organizations to imitate or model other organizations that they consider to be successful when uncertainty takes place (e.g. the increasing use of the term "customer" - adopted from business lexicon - rather than "patron" to identify library users). Normative isomorphism is described as stemming primarily from professionalization. Two qualities in particular are highlighted as playing a role in normative isomorphism: formal education with the legitimacy of scholars and the increase in

professional networks which allow for rapid diffusion of ideas and models (DiMaggio & Powell, 1991). Professionalization will be attended to in more depth later in this chapter. We will now turn our attention to a discussion of public libraries and how concepts from new institutional theory can help inform our understanding of the institutional and organizational form that is the public library.

Public Libraries as Institutions

Background

In the United States, we have a history of over 150 years of tax support for public library services (McCook, 2004). Public libraries are well known institutions with preconceived ideas and perceptions attached to them, on conscious and unconscious levels. Just as hospitals or schools evoke vivid images for individuals, so do public libraries, whether that image includes a grand architectural edifice, the musty smell of books and/or kindly information providers largely depends on the individual's experiences with the institution. There is a wide variety of the manifestation of the public library throughout the country and local communities, but they have this in common: "In any community, the local public library provides a sense of place, a refuge and a still point; it is a commons, a vital part of the public sphere and a laboratory for ideas." (McCook, 2004, p. 1).

The seeds of the public library began during the Colonial period with social and circulating libraries. According to library historians J. Shera (1965) and Ditzion (1947), there is some debate about when the first public library was established in the United States. Whether it was in

Salisbury, Connecticut in 1803 or Lexington, Massachusetts in 1827 or Peterborough, New Hampshire in 1833 is somewhat a matter of how the concept of the institution is defined. Shera advocates the use of the definition from the 1876 U.S. Bureau of Education report, "The 'public library' which we are to consider is established by state laws, is supported by local taxation or voluntary gifts, is managed as a public trust, and every citizen of the city or town which maintains it has an equal share in its privileges of reference and circulation." (as quoted by Shera, p. 157) He identifies the founding of the Boston Public Library (by an enabling act in 1848) as "the greatest single contribution to the development of the public library movement" (p. 170) mainly because of its size and subsequent influence. The State of New Hampshire enacted legislation which provided for the establishment of public libraries in 1849. Massachusetts followed with a general law in 1851 and by the end of 1854 at least ten institutions were established in towns and cities throughout the State. By the turn of the century (1900), there were nearly 1,000 public libraries throughout the country (McCook, 2004). Today there are close to 17,000 library locations, and over 25 million Americans utilized their public libraries in 2009 (American Library Association, 2011).

There are few public entities whose function is to be open to anyone and everyone on an equitable basis. For instance, school attendance is predicated on age; fire and police stations have a mission and structure that exclude many community members. Traditional public library values have been described as non-commercialism, universalism (information accessible to all), democracy, and literacy promotion (Evjen & Audunson, 2008). By the nature of their function, libraries are generally viewed positively. "Knowing that the library exists, as a possibility, is important to non-users" (Varheim, Steinmo & Ide, 2008, p. 881). The library is considered a

safe place to be, thus different groups meet in the library; thereby creating trust within the community (Public Agenda, 2006; Varheim et al., 2008). Not only are libraries considered to be safe havens, but they also function as public access computer and information centers, and a place that provides educational and recreational materials (Johnson, 2010). Public libraries are deeply embedded in U.S. communities and closely identified with the democratic underpinnings of American society. Thus, it seems that they have a wide spectrum of support within society and a modicum of reassurance of their continued existence.

Public Libraries from the perspective of new institutional theory

Jepperson (1991) posits that "institutions are socially constructed, routine- reproduced (ceteris paribus), program or rule systems. They operate as relative fixtures of constraining environments and are accompanied by taken-for-granted accounts." (p. 149). There are few instantiations of institutions in society that are as taken-for-granted in the United States as the public library. Public libraries have been described as the "community's living room" (American Library Association, 2011). In rural areas they can play the role of primary information hub and community center (American Association for the Advancement of Science, 2002). They are often tied to a community's identity and are supported by a wide spectrum of residents. One can find a public library in many communities throughout the United States and as with schools and hospitals, the majority of residents can offer a description of what functions they assume the public library performs.

Although DiMaggio and Powell (1991) state that "the structure of an organizational field cannot be determined a priori but must be defined on the basis of empirical investigation" (p. 65), in

order to establish a starting point for investigating the organizational field of public libraries, and to better understand how public libraries are affected by forces of institutional isomorphism, some possible aspects of the typical public library's organizational field will be explored.

Different states and regions have differing governing structures; in this discussion we will consider New York State. Utilizing Scott's model as a guide, we can identify seven possible primary groups of actors when defining the organizational field for a typical public library in New York State. These include:

- Organizations with governing authority
    - Federal government, State government, Local governments
    - Library Board
- Professional associations
    - National (American Library Association, Public Library Association)
    - Regional (New York Library Association)
- Service and materials providers (to library)
    - NY State – through Library systems, State and Regional Library Resource Councils
        - Central library (of the Library system)
    - Friends of the Library groups
    - U.S. Library of Congress (through cataloging-in-publication program)
    - Publishers, Suppliers *(fee-based*)
    - Foundations and individual donors
- Other service providers in community (*some in "competition" with library*)
    - Schools, clinics, community service providers
    - Other local libraries
    - Internet cafes, Bookstores, commercial venues (*though all of these are fee-based*)
- Community groups
    - Chamber of Commerce, Service organizations (Kiwanis, Rotary)
    - Historical societies, garden clubs (*may be physically based at library facility)*
- Library staff
    - Director/Manager
    - Support staff
    - Volunteers

- Patrons/consumers
    - Local residents
    - Greater public

Scott and Meyer (1994) advocate tending to both vertical linkages and horizontal ties in order to examine how organizations interact and are influenced. If we attend first to the vertical field, or those entities with hierarchal and formal influence, the agencies that have oversight or governance over public libraries include the bodies that are responsible for regulations and laws. In the United States, state laws are the vehicles for the legal establishment of public libraries. These laws grant a district, village, town, county or city the right to create a library (McCook, 2004). While the governance of public libraries differs from community to community and state to state, there are some commonalities with regard to oversight. Federal agencies have an impact on libraries' functioning mainly through their regulative function and financial influence. For example, when the Children's Internet Protection Act (CIPA) was passed in Congress, libraries could choose not to impose filtering on public access computers, but forfeited their eligibility for any federal funds for internet and phone support if they made the choice not to enforce CIPA (Texas State Library, 2011).

The primary federal program for funding to public libraries is the Library Services and Technology Act (LSTA), administered through the federal agency, the Institute for Museum and Library Services (IMLS). In order to apply for and receive LSTA funds, state library agencies are required to submit five-year plans to IMLS. "It is through the states' administration of LSTA funds that local plans are developed to conform to LSTA goals." (McCook, 2004, p. 121) Thus, in order to receive federal funding, state agencies must be in line with IMLS goals and priorities.

In New York State there are twenty-three public library systems that are responsible for providing consolidated service to member libraries. These systems are overseen by the Division of Library Development, which is part of the Education Department. Public library systems were created by Education Law in the late 1950's to enhance and extend local public library service through the cooperative sharing of resources (New York State Division of Library Development, 2011). The mission of these library systems is to support individual public libraries throughout the state. There are three types of public library systems: consolidated (3), federated (4), and cooperative (16). In cooperative systems, member libraries function independently, rather than as branches of a greater system. Most of the rural public libraries in New York are members of cooperative systems and operate autonomously (NYS, DLD, 2011). While the cooperative library system may not have formal oversight of member libraries, it can have informal influence over their function and activities, through direct and indirect financial and social pressures. For example, library systems often maintain the system-wide online catalog and charge back to member libraries for that service. Library systems are also the vehicle for administration of state funds and other types of donations, such as grants from the Gates Foundation.

In order to qualify for and receive state and federal funding, a public library must be a member of a public library system. There are also nine regional library councils, the "3R's" (Reference and Research Library Resources), that provide support to library systems and public libraries, without having any formal oversight or governing authority (New York 3Rs Association, 2011). In addition to state laws, local ordinances, passed by counties and municipalities affect the

functioning of public libraries. For example, some libraries are required to submit annual reports to the governing authority in their community (e.g. city council members) or to present their annual budget to community members for approval. The library board exerts direct authority over the functioning of the library. Members of the board usually reside in the community and may be elected or appointed, depending on the type of library and its governance.

Central libraries were created within each public library system in New York to ensure access to a wide variety of reference resources for member libraries of the system, and their patrons. According to the Division of Library Development (2009), "the goal was to ensure that each citizen have, relatively close at hand, a significant collection of print or print-based resources available for on-site use and Interlibrary Loan…. they serve 741 local libraries all over the State. Central libraries represent a substantial investment resulting from a long term partnership of state and local cooperation and funding which could probably not be duplicated today." Central libraries vary by community and population served, but according to the Division of Library Development (2009), they all are: a principal node in providing access to resources; located in the principal economic centers; accountable for planning, budgeting, and expenditures of State funds. Additionally, they: house significant collections; provide coordinated services with the public library systems; and have staffs with considerable expertise.

Other agencies that may have an informal influence and affect the organizational function, if not the governance of public libraries, are professional organizations such as the American Library Association and its member association, the Public Library Association. Additionally, there are state-level professional organizations, such as the New York Library Association and its

divisions. Dissemination of best practices, such as how to approach teen programming or employ outreach mechanisms, occur through conferences and publications sponsored by these organizations. These organizations have a heavy influence on the professionalization of librarians. There is also an organization for paraprofessionals who work in public libraries, the New York State Library Assistants' Association (NYSLAA).

If we consider service providers as members of the horizontal structure and informal influence of the library's organizational field, besides the public library systems, resource councils, and central libraries within systems, another possible service provider to public libraries are Friends of the Library groups. They are included in this category as they support libraries with funding, publicity, and support in the community, but have no formal or official oversight capacity. The Library of Congress is also included in this group due to their pre-publication arrangement with publishers – "cataloging in publication" - they not only provide a service of classifying books, but influence how books may be categorized on the public library's shelves. Suppliers and publishers are obvious providers of materials to libraries, and usually exact a fee, so their relationship differs from the previous groups. Foundations and individual donors may have an impact on libraries through funding and can influence service through provision of materials and restrictions and/or guidance on how funds may be allocated or spent. For example, some donations may be designated for building expansion or capital expenditure only. In the case of support from some foundations, such as the Gates Foundation, there may be requirements for attendance in training programs as a prerequisite for receiving funds and/or materials.

Public libraries are situated in communities and affected by a number of local linkages, both formal and informal. They may interact directly with schools, hospitals, and community service providers (e.g. Planned Parenthood) to determine community expectations for service. The library staff may have children enrolled in the schools, or spouses who work in community organizations, thereby informally influencing the organization's functioning. Other local libraries may exert influence on their neighboring library through their provision of services or lack thereof. Commercial venues such as Internet cafes and bookstores offer some of the same services as public libraries and should be considered as members of the horizontal field as well.

Community groups and service organizations, such as the Chamber of Commerce, Kiwanis and the Rotary, also play a role in the environment in which the library operates. In order to stay viable, the public library must be aware of community expectations. Interaction with other members of the horizontal field influences the library on many levels, and can help to inform and guide how the library responds to the community it serves. "Field boundaries, as they are perceived by participants, affect how organizations select models for emulation, where they focus information-gathering energy, which organizations they compare themselves with, and where they recruit personnel." (DiMaggio, 1991, p. 267)

While there are organizational actors playing a role in all of the groups described thus far, the organizational actors in the last two groups in the list, library staff and patrons, exert the most influence on the day-to-day functioning of the organization. In 755 New York public libraries, there are approximately 4200 professional staff, and over 9000 other staff employed throughout the state (NYS DLD, 2006). In 2009, a national research firm found that more than 25 million

Americans reported using their public library more than 20 times in the past year, an overall increase of 23 percent from 2006 (American Library Association, 2010). This finding implies that in public libraries, there may be more patron influence on the institutional culture than in other settings, where there is less repeat usage or visits over the course of a year.

Empirical investigation can help to uncover the influence of the different categories of organizational field members, and the types of institutional isomorphism that have an impact on public libraries, particularly in terms of adaptation and service provision. Besides the organizational field, another area of influence to consider is the professionalization of the library staff.

Professionalization of museum workers and librarians

DiMaggio (1991) examines professionalism of museum workers in his archival analysis of art museums. During the 1920's, there were two differing models of the American art museum, the first was favored by the Director of the Museum of Fine Arts in Boston, which DiMaggio calls the "Gilman" model. This model emphasized collection and conservation, considered the public or audience to be local elites, collectors and the educated middle class. The counter model, from the Newark museum or "Data" model viewed education and exhibition as the museum's primary mission, with the primary clientele being the general public, designers, and manufacturing groups. Oversight or control in the Gilman model was by patrons, trustees, donors, and aesthetic professionals. The mechanism of control in the Data model was museum professionals, educators and the influence of the State. It should be noted that Dana, proponent of the Data model, was a prominent and innovative librarian of the time (some even referred to him as

"radical"). He was director of the Newark Public Library and his view of the museum was largely influenced by his background and work as a librarian (Kingdon, 1940).

A number of factors converged to bring about the shift in the approach to how museums operated and identified their missions. DiMaggio attributes the shift in model largely to the rise of professionalism in the art world, which was made possible by an increased interest in art with a concomitant increase in private, municipal and foundation funding. In order to explain the increasing professionalization that took place in the art museum milieu, DiMaggio details five aspects that were necessary for the increase to take place. He adapted these from Wilensky (1964) and Larson (1977). They include:

- production of university-trained experts
- creation of a body of knowledge
- organization of professional associations
- consolidation of a professional elite
- increase of organizational salience of professional expertise

If we apply DiMaggio's five dimensions of increasing professionalization to the library arena and the subsequent professionalization of librarians, we can trace similar patterns. The first factor, the production of *university-trained experts* is well-established within the library profession. In the United States, formal education of librarians began in 1887 at Columbia University's School of Library Economics, headed by Melvil Dewey. The inaugural class consisted of seventeen women and three men. Dewey's graduates were responsible for the founding of eight of the early library schools. The first programs were centered on the practical

aspects of the management of libraries and were located in institutions of technology rather than universities (Wedgeworth, 1993).

The core curricula of the degree as well as practice parameters constitute the second factor, the creation of *a body of knowledge*. In the early 1950's the American Library Association Council adopted new Standards for Accreditation with the subsequent outcome being that the terminal or fifth-year degree for the librarian became a Master's degree rather than the Bachelor's degree which had been the norm prior to that time (Wedgeworth, 1993). There are currently fifty-eight ALA-accredited library science programs in North America. It is common practice today for employers to require a degree from an ALA-accredited institution as a pre-requisite for job-seekers.

The third dimension, the *organization of professional associations*, is well established in the library profession and includes national entities, such as the American Library Association (ALA), with its range of divisions, including the Public Library Association (PLA). The ALA, officially formed in 1876 is the "oldest and largest library association in the world" with over 62,000 current personal members (ALA, 2011). It should be noted that membership is not restricted to librarians, and anyone who supports libraries may join the organization. State and local levels of professional associations also exist (e.g. the New York Library Association) and there are a variety of professional organizations for specializations within the library profession, such as the Medical Library Association and Association of College and Research Librarians.

The fourth dimension, the *consolidation of professional elite*, also exists within the library profession on a number of levels. It may be more difficult to compartmentalize than in the case of the art museum. There is little or no overlap between communities of subspecialties of librarians (e.g. law librarians and children's librarians). Therefore each community of librarians has its own hierarchy and recognized group of elite members, be that at the level of the organization, or on a national, state or local level. Even within a specific area of librarianship, for example, the public library arena, the identification of the professional elite may be difficult as there are a number of different organizations and agencies to include, whether at the federal, state, local or professional organization level. Additionally as noted above, in the case of the American Library Association, the primary professional organization for public librarians, membership is not restricted to professionals. This tradition of inclusiveness may also contribute to a less consolidated and cohesive professional elite, at least within the public library arena.

The final factor DiMaggio describes is the increase of *organizational salience of professional expertise*. Here again, the library profession may fall short in articulating this notion to the greater public they serve, though there are possible differences within each specialized area of librarianship or library setting with regard to this dimension. For the average library patron or citizen, any individual who works in a public library is a "librarian," there is little recognition that the term librarian actually means the individual possesses an advanced degree that includes specialized training. Additionally, not all public library director or management positions require that an applicant possess the Master's degree. A quick survey of rural public libraries in New York State reveals that the majority are not staffed by MLS/MLIS level librarians. This may not be the case in law offices and hospital libraries, however, where the delineation of job duties is

likely to be more restricted, well-defined, and where there are likely to be higher social expectations for high levels of quality service.

The five aspects of professionalism described by DiMaggio can be identified in the establishment of the librarian profession. It appears that with regard to the last two factors (consolidation of the professional elite and an increase in organizational salience of expertise), over time the library profession has not attained the same level as was identified with the museum workers in DiMaggio's analysis. This phenomenon may contribute to the library's ability to adjust to societal changes when it comes to updating services. This issue will be explored in the following section.

Adaptability and Development of new services

Like so many publicly supported organizations, libraries are often beset with financial challenges and must examine ways to stay viable within the communities they serve in order to justify their existence and to survive. New ways to deliver service cover a wide range of ideas and approaches and are ideally limited only by library directors' and boards' imaginations, community expectations, and resources. A number of libraries have adopted the "bookstore model" with an inclusion of cafes, or have established teen centers and community rooms. In Cuyahoga County, Ohio, the public library now offers one-stop passport application and renewal services, with photo services in seven branches (Cuyahoga Library, 2010). In Baltimore, public libraries are partnering with local grocers to serve as outlets for groceries, providing access for patrons to fresh, healthy food items (Owens, 2010). Some libraries lend laptops to patrons. At the public library where I worked, we loaned out a large party tent. Other libraries have

embraced what they view as their educational mission and offer training in digital and financial literacy to patrons.

What services libraries provide and how they respond to community desires and needs isn't universal, however. While some libraries may approach service provision innovatively, others fall back on relied-upon practices with little change. There are a number of complex and inter-related factors that may influence this, possibly related to coercive, mimetic and normative isomorphism. If we take the case of health information provision in public libraries, in terms of coercive isomorphism, there may be policies that restrict staff from answering health queries. With regard to normative isomorphism, elements of professionalization, such as the level of education, experience and expectations of the library director or manager may play a role. Mimetic isomorphism may be evident through libraries mimicking neighbor libraries in terms of how they approach service provision. Another factor to consider is geographic location.

Public libraries originated in urban areas in the Northeast region of the country. Shera (1965) was premature in his analysis when he claimed, "But it is known that libraries are distinctly an urban phenomenon" (p. 15). This sentiment may have been accurate at the time of his original writing (the first edition of his publication was 1949), but is certainly not the case now. According to Pearlmutter (2011), the majority of public libraries (88%) in the U.S. serve populations of 50,000 or less; more than half are chartered to serve populations of fewer than 10,000. The origins of rural public libraries can be traced to the traveling library, "a collection of books lent to a community for general reading" (Bullock, 1907, p. 1). According to DeGruyter (1980), the purpose of the traveling library was not to provide research or reference information,

but to provide cultural and moral support for communities. The majority of materials were fiction, with very few nonfiction titles to "help [people] to think to some purpose." (Bullock, p. 9) Thus, if we consider the effects of institutional isomorphism the original purpose and expectation of the rural public library may continue to influence service provision and affect how rural libraries perceive their mission today.

The incremental taken- for-grantedness of what the public library provides, such as fiction and storytime for children, may have the effect of stifling change in service provision. As long as the community's expectations are fulfilled, and funding continues, the library may have little incentive for adaptation and can survive by providing the status quo. Even if that status quo was established well over a century ago and advances in information access, provision, service, and technology have radically altered the public library landscape. The area of service provision we will now consider in the role of the public library is the provision of health information.

Health information

In the early 1900's in the United States, there was a lively debate in the medical library literature regarding the provision of medical information in public libraries. The debate centered around whether it should be part of the state libraries' missions to provide medical information to practitioners in the same manner that legal information was collected and made available. Melvil Dewey, then director of the New York State Library, argued that "medical books and magazines are many and costly. Very few physicians can afford to buy or can otherwise get access to all they would like to see. Any taxpayer is liable to have in his own family a case where a life might be saved through the facilities of a medical library at the service of his family

physician. Therefore I rank medicine next after law among the fields that a State Library should cover for the benefit of the entire community" (Dewey, 1902, p.3). While the emphasis was on access for physicians to medical information, the fact remains that the notion of public libraries serving in the role of information provider in the medical and health information venue is not a new one.

Because the public library is a trusted institution and information provider, it seems natural for patrons to use them for satisfying their health information needs. Studies demonstrate that the need for health information exists (Becker et al., 2010; Flaherty & Luther, 2011; Harris et al., 2010; Linnan et al., 2004), and that there is enthusiasm among some libraries and library staff to fulfill this information need. Findings from a 1998 pilot study by the National Library of Medicine (NLM) revealed an eagerness among public libraries to receive training and information resources in support of their users' medical information needs. Further, once training and resources were provided by the NLM, half of the libraries willingly promoted these expanded services through community outreach (Wood, Lyon, Schell & Kitendaugh, 2000).

A number of authors have highlighted the importance of collaboration in the dissemination of consumer health information. Organizations such as health agencies, governmental agencies and information hubs such as public libraries have been identified as potential collaborators in health information provision (Calvano & Needham, 1996; Guard et al., 2000; Martin & Lanier, 1996; Spatz, 2000). Rural communities may lack many of these organizations, leaving the public library as the sole local information center. It appears that little is known about how rural public libraries and their staff are responding to their communities' needs for health information.

Identification and analysis of organizational fields and how they exert influence on libraries may provide insight into how public libraries respond to their communities with regard to service provision. Additionally, further examination of professionalization of librarians and library staff may help to explain differences in role expectations and responsibility for service to patrons.

Applying the theory: Rural libraries and health information

As stated earlier, DiMaggio and Powell (1991) advocate for empirical analysis to identify the structure of organizational fields to aid in our understanding of organizational forms. To study and identify the organizational fields that influence library function, I propose employing an exploratory case study, utilizing the seven primary groups or categories of actors listed above as a template, with some modification, in order to examine their influence in one unique aspect of service provision: the establishment of a consumer health resource center (CHRC) within a central library as a means of health information provision.

In the case of the central library's CHRC establishment, the following specific possible category members will serve as a starting point for inquiry:

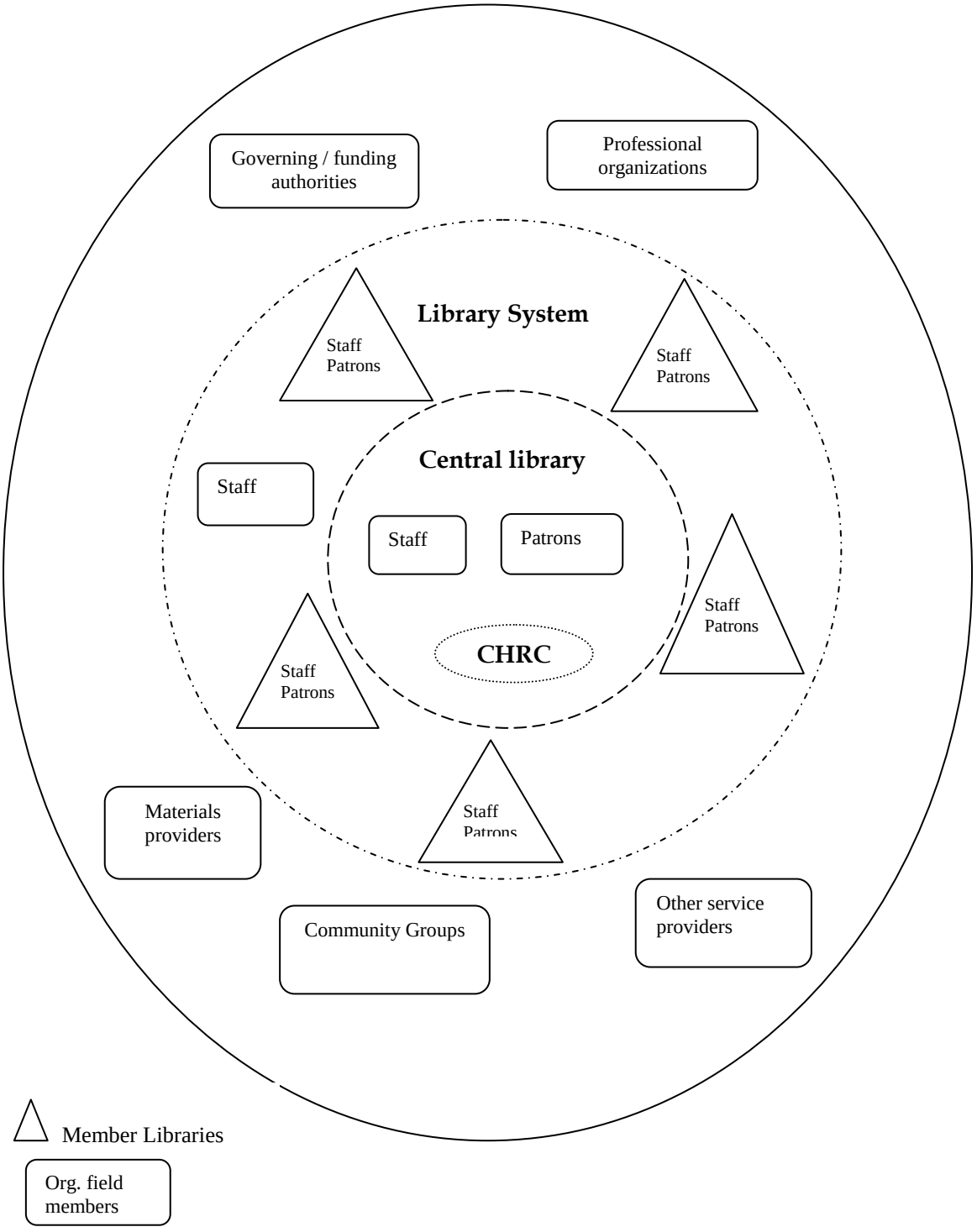
- Organizations with influence in terms of governing and/or funding authority
    - Federal government (IMLS; LSTA; NLM)
    - State government (NYS DLD; Dept. of Education)
    - Local government (City of Glens Falls)
    - Library Board (for Crandall Central library)
    - Foundations (possible funders?)
- Professional associations
    - National (ALA; PLA; MLA; SLA)
    - Regional (NYLA)

- Service and materials providers (to library)
    - NY State
        - Library system (Southern Adirondack Library System)
        - Regional Library Resource Councils
    - Friends of the Library group
    - Suppliers (e.g. publishers of health information, etc.)
- Other service providers in community (*some in "competition" with library*)
    - Schools (Is there a school nurse, library, dedicated health teacher/classes?)
    - Clinics (What type/extent of information is available there?)
    - Hospital (What type/extent of information is available there?)
    - Community service providers (e.g. Planned Parenthood; Public health dept.)
    - Other local libraries (within geographic proximity)
    - Commercial venues *(these are fee-based*)
        - Internet cafes
        - Bookstores
- Community groups
    - Chamber of Commerce (Close relationship with library? Are library director/staff/board members active in Chamber activities?)
    - Service organizations (e.g. Rotary, Kiwanis – do they make donations to library?)
- Library staff
    - Director/Manager
    - Support staff
    - Volunteers
- Patrons/consumers
    - Local residents
    - Greater public

Figure 2.1 is a preliminary pictorial depiction of the seven primary groups as possible members and organizational influences within the organizational field. The CHRC in the central library is in the center of the figure, and embedded within the library system. The other member libraries of the system are also within the system, but functionally autonomous; they are represented by triangles (there are 34 member libraries, so they are not all individually represented due to space considerations). Although the triangles are similar in size, the libraries do have differences in size of the population served; there is a variety among member libraries. The boundaries between the field and the levels are represented with dashes because they are not closed systems.

The members of the organizational field might exert influence on the library system or on the member libraries (which are represented by triangles). Staff are embedded in more than one setting on different levels. Patrons are present in the central library and in all of the member libraries, but not in the library system (the library system serves the member libraries, but not individual patrons). Empirical investigation will help to identify the vertical and horizontal linkages, as well as the formal and informal influences of each group and the relationships between the organizational field members. Investigation may also uncover additional field members that have not yet been considered or identified.

Figure 2.1 - Preliminary depiction of organizational field



Another aspect of institutional influence that will be considered is professionalization, one possible form of normative isomorphism. Examination of the professionalization of library staff, using the five aspects of professionalism outlined previously as a guide, will help to increase our knowledge of public library organizational functioning. To investigate the effect of the five aspects of professionalism, avenues of investigation include:

- *production of university-trained experts* - does the librarian hold an MLIS?
- *body of knowledge* - are the staff familiar with health information resources?
- *organization of professional associations* - are the staff members of NYLA, ALA, etc.?
- *consolidation of a professional elite* - do the staff communicate and/or collaborate with other library staff/librarians?
- *increase of organizational salience of professional expertise* -how do staff learn about service provision/health information resources?

The aim is to discover in what ways professionalization might influence service provision, and in particular health information service provision.

Summary

The public library has a rich institutional history as a unique organization whose mission is to provide information and varied services to its users. Localities throughout the United States have a vested interest in their "community living rooms," their public libraries. If as Selznick (1992) asserts, "Institutions endure because persons, groups, or communities have a stake in their continued existence" (p. 233), libraries will continue to be an important part of America's landscape and structure for the foreseeable future. While some elements of public libraries

remain constant, such as open access for all; as organizations, public libraries must continuously adapt to changes in their communities and society at large.

A better understanding of the organizational and institutional forces that affect their decision-making and functioning will help to ensure that public libraries are responsive to societal forces and their communities' ever-changing needs for information. Institutional theory can provide the framework for identifying the organizational field and what might influence changes in service provision, as in the case of the establishment of the consumer health resource center as a means of health information provision. In the prescient words of Robert Taylor (1968), "If libraries, at any level of service, are going to grow and evolve (and indeed exist) as integral parts of our urban technico-scientific culture, then they must know themselves. They must know themselves both as local and rather special institutions and as parts of very large, very dynamic, and very complex information and communications networks, which operate on both a formal and informal level." (Taylor, 1968, p. 194). Through examination of institutional forces such as the organizational fields and professionalization of staff, I hope to impart a better understanding of what factors might be involved in the provision of quality consumer health information, and to aid in that process of libraries knowing themselves. Chapter three follows with methodological considerations.

CHAPTER 3 Methodological Issues

Introduction

The broad research queries guiding this study include: in an organization, what influences the commitment associated with establishing a consumer health information or resource center? What led the organization to choose this method of service provision? How does such a center become a component of a library's basic services? Based on these broad issues, we return again to the research questions that will inform this understanding:

- ***RQ1***: What organizational factors are associated with the creation of a consumer health resource center (CHRC) within a central public library?
- ***RQ2***: How did the organizational field influence the central public library with regard to adoption of a consumer health resource center (CHRC) as a service?
- ***RQ3***: How does professionalization of librarians influence an institutions' adaptability to provide consumer health information?

As stated earlier, the motivation for this research is a better understanding of how rural public libraries address their communities' consumer health information needs. To inform our understanding of health information reference provision in rural public libraries, preliminary research studies were conducted in 2010 and in 2011. Using a mixed method approach of surveys, interviews, and in-person visits, we found a wide range of approaches to health information provision. On one end of the spectrum, we were referred to misinformation, on the

other end; we were referred to the library system's consumer health resource center (CHRC). How could similar libraries (in terms of governance, structure and community) have such differing service provision? What were the institutional influences that led to the establishment of a CHRC? These preliminary findings indicated that in order to more fully understand this phenomenon, the research approach must go beyond surveys and short interviews. A more thorough and holistic exploration taking into account the larger context is necessary to better understand rural public libraries' approach to health information provision.

The overarching interest or common theme in the proposed research questions is a better understanding of organizational behavior, and as such can be guided and informed by studies from the field of organizational sociology, which has a long history of using case studies as a research method. The case study method has been described as the appropriate approach to utilize when the researcher desires a holistic and in-depth understanding of complex social phenomena (Baxter, 2008; Creswell, 2009; deVaus, 2001; Yin, 2009). Case studies can be used to study individuals, organizations or communities, processes, activities, programs or decisions and rely on a variety of data sources and collection procedures (Stake, 1995; Baxter, 2008). "A well-designed case study will avoid examining just some of the constituent elements. It will build up a picture of the case by taking into account information gained from many levels" (deVaus, 2001, p. 221).

Case studies offer flexibility and have been used extensively in the field of sociology and social science to study a wide variety of topics, from the causes of social revolutions to the evolution of institutions (deVaus, 2001; Vennesson, 2008). This method of inquiry helped to lay the

groundwork in our understanding of organizational and institutional behavior (Gouldner, 1954; Selznick, 1949). Single case design is useful when the case under consideration represents a unique or extreme case and is used to describe an unusual situation (Yin, 2009).

With regard to the proposed research, the case study method allows for a holistic approach and multiple data collection means to identify the factors that influenced organizational choices in terms of the establishment of a CHRC. For example, in order to address the second research question, the first step is to identify the organizational field. DiMaggio & Powell (1991) assert that the organizational field can only be determined through empirical analysis. The case study approach will allow for exploration and analysis of possible members of the organizational field (vertical and horizontal, formal and informal) and their influence on library's service provision and perception of mission. This in-depth approach, using multiple methods of data collection, enables the researcher to explore phenomena from many angles. For example, interviews with board members may impart some information regarding influence, while information found in documents such as grant applications may reveal other types of influence.

There are two types of single case studies, holistic and embedded (Yin, 2009). The holistic design is used when there aren't any obvious or logical subunits; that is when the global nature of the phenomenon is under consideration. In contrast, the embedded case study involves more than one unit of analysis. In this instance, subunits are identified and examined. In this research study, an embedded case study, the public library is the organization being considered, so subunits include staff, patrons, service providers, etc.

Case Selection

One of the challenges in using the case study method is in case selection. Strategic selection of a case or cases is imperative so that the researcher is using the appropriate context and data to address the research question or questions. Single case design is appropriate when the researcher's goal is to examine a unique or extreme case. This approach is used to explore or describe an unusual situation (Yin, 2009). The atypical or unusual cases "often reveal more information because they activate more actors and more basic mechanisms in the situation studied" (Flyvbjerg, 2006, p. 229). In the proposed research, what appears to be a unique approach by a central library when it comes to health information provision - the establishment and continued maintenance of the CHRC - will be examined. This singular case will afford the opportunity for an in-depth exploration of the decision-making process and organizational factors and influences that led to its creation.

The Case in question

In New York State, public library systems were established through Education Law in the late 1950's to allow for cooperative sharing of resources and to extend local public library services (NYS DLD, 2011). There are currently twenty-three public library systems that support individual public libraries throughout the state. The three types of systems include consolidated (3), federated (4), and cooperative (16). In cooperative systems, member libraries maintain their autonomy and local governance. The majority of rural public libraries in New York are in cooperative systems. Each library system has a central library (or co-central libraries) whose mission is to support the member libraries.

Over ten years ago, central libraries were identified as "often the gateway to consumer health information" not only for their patrons, but for the patrons in the member libraries that they supported (NYS DLD, 1999). Around that time, the central library association (of central library directors) was much more active than it is today. Some central library directors from the libraries in the Upstate region sought to establish a consortium with the New York Public Library and to modify the current legislation in order to identify innovative ways to provide access to health information (Steiner, personal communication). Budget constraints curtailed these activities and the plans were never carried out; however, in one of the sixteen central libraries within cooperative systems, a consumer health resource center was established in 2003. The center is located at the Crandall Public Library in Glens Falls, the central library for the Southern Adirondack Library System, and is staffed by a medical librarian. This single, unique case offers the opportunity to study that center, the organization, and the decision-making process that led to its creation.

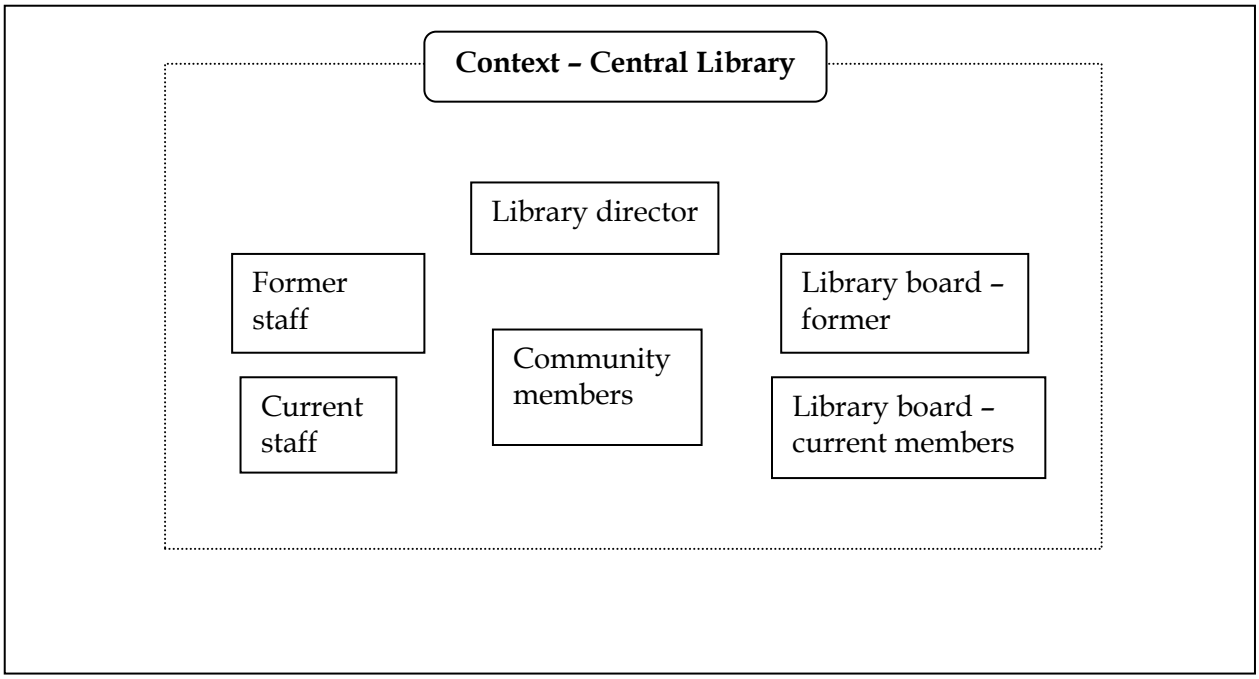
Unit of analysis

One consideration when employing the case study is the unit of analysis. As the research questions influence what approach to use and consequently guide in case selection, they also determine what the unit of analysis will be. According to Miles and Huberman (1994) the case is, "a phenomenon of some sort occurring in a bounded context." The case is, "in effect, your unit of analysis" (p. 25). Yin (2009) echoes this definition, "your tentative definition of the unit of analysis (which is the same as the definition of the 'case') is related to the way you have defined your initial research questions" (p. 30). deVaus (2001) states, "Alternatively, a

decision… might be a unit of analysis for the case study. The case study could involve understanding the decision as a whole, examining the process by which it was made, the participants, the consequences, etc." (Italics original, p. 220). The unit of analysis of this case study, or the case in interest is: the decision-making process that led to the creation of the CHRC. In order to better explain the context of the proposed research questions, each question will be addressed separately in the following section.

Research question one: *What organizational factors are associated with the creation of a consumer health resource center (CHRC) within a central public library?* relates to the organizational factors involved in the decision to create a CHRC. This question will initially be investigated within the context of the central library. To begin the process of identifying possible organizational factors, the following subunits or embedded units of analysis will be explored: the director, former and current board members, current and former staff, and other community members as identified by the library director. Figure 3.1 represents some of the subunits that will be examined within the context of the central library. Of course, these may uncover other avenues of investigation, so this may not be an exhaustive list. The flexibility of the case study approach will allow for further sources to be identified and pursued during the data collection process. Data collection techniques include interviews and document analysis and will be described in further detail below.

Figure 3.1 – Organizational Factors (RQ 1)



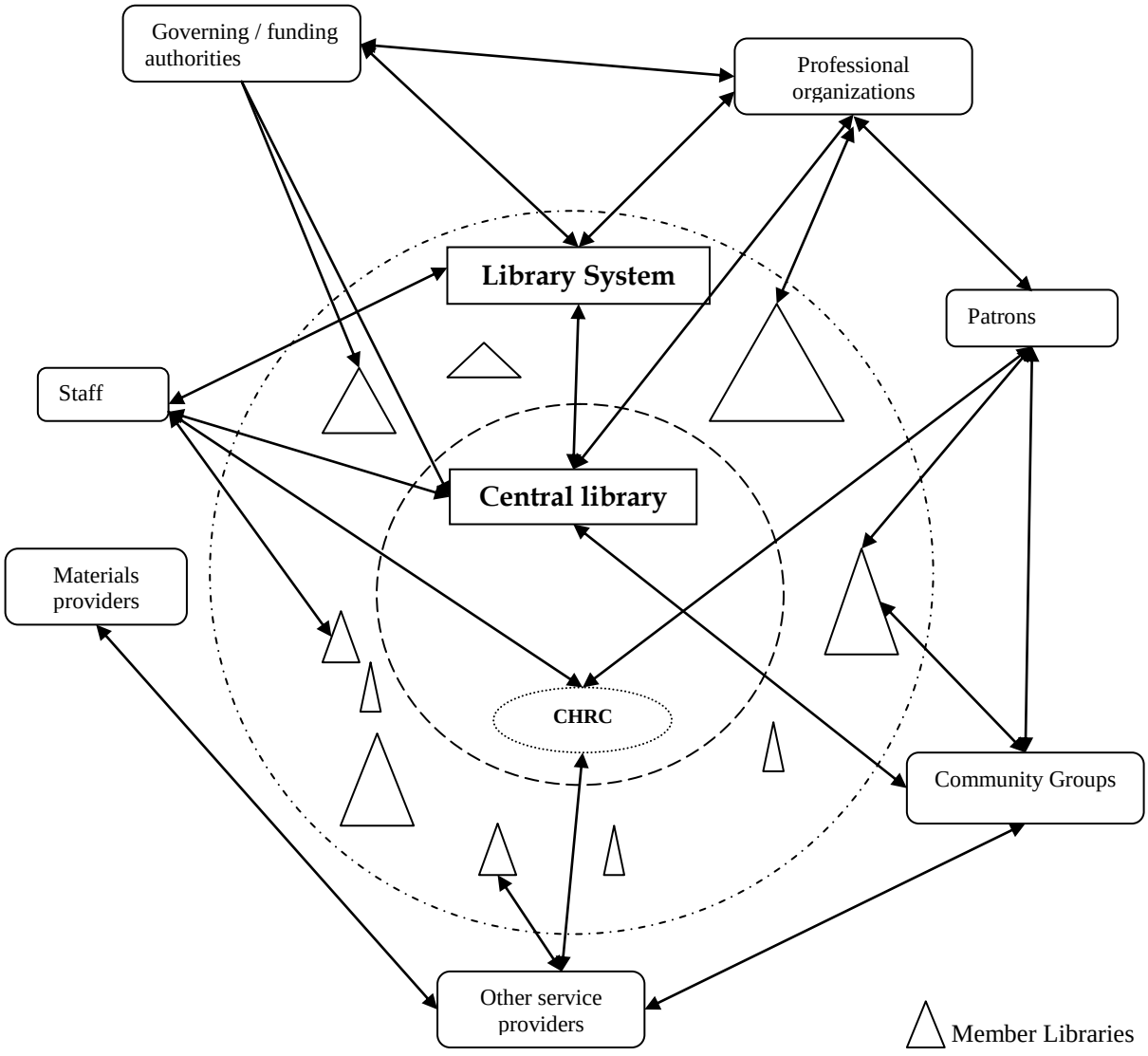
Boxes represent embedded units of analysis or subunits

Research question two addresses the influence of the organizational field in the decision to create a CHRC to respond to health information needs: *How did the organizational field influence the central public library with regard to adoption of a consumer health resource center (CHRC) as a service*? The organizational field can exert vertical or horizontal influence on organizations and is identified through empirical investigation (Scott, 2008; DiMaggio, 1991).

The following subunits or categories of organizational fields will be considered, within the context of the Glens Falls community, as the starting point for the inquiry into research question two: organizations with governing and/or funding authority; professional associations; community groups; patrons/consumers; library staff; other service providers in the community; and service and materials providers. A preliminary depiction of what the organizational field

might like look in this case is presented below (Figure 3.2). The CHRC in the central library is in the center, and within the library system. The other member libraries of the system are also within the system, but functionally autonomous, they are represented by triangles (there are 34 member libraries, so they are not all individually represented due to space considerations). A preliminary attempt to represent influence in the organizational field is made in Figure 3.2.

Figure 3.2 - Preliminary depiction of organizational field and possible levels of influence



Empirical data will help to identify the actual hierarchies and the horizontal and vertical linkages. Arrows signify possible influence and will be further refined and developed as data is collected. For example, some of the relationships may be one-sided, or may differ with regard to formal or informal influence. This figure is meant to provide an example and is only included as a possible preliminary depiction and presented for illustrative purposes only. Data collection techniques will include interviews and document analysis and will be discussed in detail below. As the data is processed and analyzed, the figure will be revised and adjusted accordingly.

Research question three: *How does professionalization of librarians influence an institutions' adaptability to provide consumer health information,* will be addressed concomitantly with questions one and two. That is, during the data collection process attention will be paid to factors affecting professionalization such as levels of university training, membership and activity in professional associations. Interviews with library staff will include questions on these topics.

It is important to note, as Yin (2009) cautions, "when you do eventually arrive at a definition of the unit of analysis, do not consider closure permanent. Your choice of the unit of analysis, as with other facets of your research design, can be revisited as a result of discoveries during your data collection" (p. 30). The case study approach allows for flexibility, so adaptation throughout the process based on findings is not only possible but highly likely. These choices will be integrated into the ongoing data analysis process. For example, in the exploration of research question two, other organizational field members may be identified during interviews with the

library director and library board members. The process may lead to referrals to other community members not yet identified who will be sources of further information.

Boundaries of the Case

Another consideration when utilizing the case study approach is how to establish boundaries for the case study. The boundaries identify what will and what will not be studied. This aids in keeping the study doable. The boundaries also outline the breadth and the depth of the research. As identified by Baxter (2008), approaches for binding a case can include: (a) *time* and *place* (Creswell, 2003) and (b) *time* and *activity* (Stake, 1995). The *time* period for the case study of the CHRC will be bounded from the preliminary discussions of the possibility of creating the center (~1999) to present; the starting point for the community or *place* where the organizational field will be considered is the Glens Falls area, the region served by the Southern Adirondack Library System and New York State. The primary *activity* to be investigated is the decision-making process of the central library on how to provide health information.

Data Collection

According to deVaus (2001), "If we equate case studies with a particular data collection method we misunderstand case study design… multiple methods of data collection will often be employed" (p. 230). In order to construct a holistic view of the factors involved in the decision to create the CHRC, a variety of approaches will be used to elicit data, including interviews, document analysis, and observation.

Interviews

Interviews allow the respondent to move back in time and permit the reconstruction of events (Lincoln & Guba, 1985; Pickard, 2007). In order to balance maximizing efficiency while gleaning an adequate amount of information in the process, a preliminary set of questions will serve to guide the process. As the motivation of this research is to learn about a specific process and its end result - that is, the decision-making process and subsequent establishment of the CHRC - interviews will be employed with open and closed-ended questions to elicit information. As further information is obtained during the interview process the questions may be adapted based on the interactions with interviewees. To determine the organizational factors referred to in research question one, interviews will take place with the library director, current and former board members, the current and former medical librarians who staff(ed) the center, and any community members identified by the library director and/or library board members. Avenues to explore will include the possibility that the library (staff and/or board) saw an increased need for answering consumer health questions, was this due to the internet? Was the CHRC a way to fulfill that need? Another consideration is the role of social actors in the process, was the library director (or another individual such as a board member or foundation member) influential in the establishment of the center?

Interview guides "ensure that each interview covers basically the same ground but gives the interviewer considerable discretion in the conduct of the interview" (Ellis, 1993, 475). A more complete interview guide for each of the three research questions is included in Appendix B.

To explore the organizational field, the primary concept in research question two, interviews will be conducted with library system and regional library council personnel; the Chamber of commerce director; the hospital administrator; New York State Division of Library Development personnel; and other service providers in community. An attempt will be made to determine how other organizations within the community exerted formal and informal influence on the establishment of the CHRC (e.g. foundations through funding; health care providers on library board, library system initiatives, central library directors' association, etc.). For example, questions such as "Please describe the planning process for the CHRC and did your organization provide funding or material support for the Center?" may indicate early involvement or support for the Center by organizations within the community.

To investigate the influence of professionalization on the institutions' adaptability to provide consumer health information, the topic of research question three, interviews will be conducted with directors of member libraries served by the CHRC. DiMaggio's (1991) aspects of professionalism will inform and guide this query; in particular, the elements of university-trained experts and membership in professional associations. One avenue of exploration will be the effect of an advanced degree (e.g. MLIS). That is, are library managers with an MLIS or other advanced degree more likely to respond favorably to providing health information as a library service? Do membership in a professional organization (e.g. American Library Association) and/or attendance in professional conferences by the library manager/director have any effect on the approach to or view of service provision?

Documents

Documents can provide a record or written accounting of decisions made, policies passed, and services adopted. They can be used to trace the decision-making process and the path the organization followed in that process. For example, board minutes may reveal resolutions passed that specified methods for patron service provision, such as the creation of a new position (the medical librarian). Planning documents may reveal a building expansion project that enabled more space, thus the opportunity to expand services. Additionally, they can be used to clarify and/or verify information obtained through interviews. For instance, if during an interview, a board member recollects obtaining funding to initiate the CHRC, grant application records can identify what funder or organization supplied the funds and the chronological process that occurred.

In order to probe the reasoning behind the establishment of the CHRC as a means of health information provision, the query process will begin with examining the following documents for mention of the CHRC:

- board meeting minutes
- planning documents
- annual reports
- policy manuals
- mission statement
- grant submissions
- brochures and pamphlets
- website
- media reports
- job descriptions

To better understand the organizational field members, structure, and influence (the topic of research question two) the following documents will be examined, note there may be overlap with the categories of documents listed above. Examples of possible starting points for inquiry are in italics. Due to the iterative nature of the process, it is likely that other points will also emerge.

- Organizations with influence in terms of governing and/or funding authority
  - Federal, state, and local regulations
    - *Are there oversight requirements? (e.g. state regulations regarding service provision)*
  - Grant and proposal applications
    - *Was funding procured to start the CHRC; did the library board apply or the library director or library system?*
    - *Were in-kind services donated by community members?*
  - Records of donations
    - *Did a publisher of health information donate materials?*
    - *Did a local philanthropist interested in health donate funds?*

- Professional associations
  - Membership material
    - *Is/was the library an institutional member?*
    - *Are library staff members of any of these organizations?*
      - ◊ *Does the library pay for membership?*
  - Guidelines for service (ALA, PLA, MLA, and NYLA)
    - *Do the organizations post these?*
      - ◊ *Are there references to health information provision?*
    - *Is there any reference to these in any library documents (e.g. memos on the CHRC)*

- Service and materials providers (to library)
  - Library system contracts; mission statements; board meeting minutes
    - *What are the agreements for service provision between the library system, central library and system members?*
    - *Does the mission statement of the central library differ from other central libraries' mission statements?*

        - *Is the mission statement regularly reviewed and updated?*
        - *Is there discussion in board minutes about different types of service provision?*
    - Friends of the Library Board meeting minutes
        - *Is/was the Friends group involved in the creation/maintenance of the CHRC?*
    - Vendor agreements and contracts
        - *Are there databases specific to health information?*
            - *Are there long-term contracts?*

- Library staff
    - Job descriptions
        - *Have these changed?*
        - *When/how was the medical librarian position created?*

To pursue the issue of professionalization in research question three, the documents that will be utilized include the annual report statistics from the New York Division of Library Development on staff educational levels and reference queries. Annual report statistics for the Consumer Health Resource Center will also be examined to determine referral and use levels by libraries and library staff within the system.

Observation

Observation can provide additional information on the topic under consideration and allows for real-time, here and now experience (Lincoln and Guba, 1985; Yin, 2009). Some observation will take place in the CHRC at the central library. This approach will be used to view the interactions taking place between the medical librarian and patrons. All information gleaned from this approach will be anonymized; no unique indicators (e.g. date and time, patron descriptions) will be recorded. IRB approval, permission from the library director and library staff will be obtained before any observation will take place. This data collection technique will be used to

explore health information provision and the interactions patrons have with the library staff with regard to reference service provision. For instance, how long are the encounters; were the patrons referred to the CHRC (if so, by whom?); what resources (if any) do the patrons consult afterwards; do library patrons immediately go to the computer terminals after the reference encounter; do they leave with materials or resources?

Table 3.1 is a preliminary outline of possible data collection activities; it is not intended to be an exhaustive outline, but to serve as a starting point. As the case study method is highly iterative in nature, it is anticipated that interviews and document analysis will inform the process and lead to other sources of information. Data collection techniques as they relate to each research question are summarized in the form of a table below. Field notes will be composed, summarized and submitted throughout the process.

Table 3.1 – Research questions and data collection techniques

Research Question	**Data Collection Technique**	**Rationale**	**Theoretical Considerations; Literature**
RQ1: What **organizational factors** are associated with the **creation** of a **consumer health resource center** within a central public library?	**Interviews** with *Library director, board members*. **Examination of library documents:** *board minutes, planning documents, annual reports, policy manuals, mission statement, grant submissions, brochures and pamphlets, website, media*	Uncovering **decision-making process** and reasoning behind establishment of center; **identifying key actors.**	The **role of actors** *Fligstein (2001) Social skill and the theory of fields.* *Evjen & Audunson (2009) The complex library. Do the public's attitudes represent a barrier to institutional change in public libraries?*

	reports, and job descriptions.		
RQ2: How did the **organizational field** influence the **public library** with regard to **adoption** of a **consumer health resource center** as a **service**?	**Interviews** with *library system* and *regional library council personnel; Chamber of commerce director; Hospital administrator*; *NYDLD personnel; other service providers in community*. **Examination of documents**: *Federal, state, and local regulations, Professional organizations' guidelines for service* (ALA, PLA, MLA, NYLA); *Library Board minutes; Friends of the Library Board minutes; grant applications; vendor agreements.*	Identifying the **organizational field** and examining the **formal and/or informal** influence of **horizontal and/or vertical aspects**.	DiMaggio and Powell (1991): "the structure of an **organizational field** cannot be determined a priori but must be defined on the basis of **empirical investigation**" (p. 65) *DiMaggio (1991) Constructing an organizational field as a professional project: U.S. Art museums, 1920-1940*
RQ3: How does **professionalization** of **librarians influence** an **institutions' adaptability** to **provide consumer health information**?	**Interviews** with *library directors in member libraries*. **Observation** in *the CHRC.* **Examination of documents**: *annual report statistics from NYDLD on staff levels; annual report statistics for*	Discovering whether there are differences among staff in terms of **experience and education** with regard to health information service provision.	Five aspects of **professionalism** *DiMaggio (1991) Constructing an organizational field as a professional project: U.S. Art museums, 1920-1940; Audunson (1999) Between*

	CHRC.		*professional field norms and environmental change impetuses: A comparative study of change processes in public libraries.*

Data Analysis

Baxter (2008) describes each data source as a puzzle piece, and points to the need for data to be dealt with as a whole, not separately. The data analysis process can therefore be thought of as the construction phase of the puzzle. Data collection and analysis occur simultaneously when using the case study approach and data is further elucidated by the collection of more data. Thus, it is a bit difficult to anticipate and describe the analysis process, but we can borrow from the approach to analyzing data outlined by Charmaz (1983). Although in her description she is discussing analysis as it applies to using grounded theory, here it will be applied to case study analysis.

The first stage of analysis will be to categorize and sort the data by using codes to label and organize. Coding occurs in two steps, initial and focused coding (Charmaz citing Glaser 1978, p. 113). Initially the data will be used to find ideas and patterns. At this phase the emphasis will be on making sense and trying to find connections. The second step in the process, focused coding, will involve using a limited set of codes to apply to the larger data. As Charmaz states, the researcher develops categories rather than simply labeling topics. "The purpose of focused coding is to build and clarify a category by examining all the data it covers and variations from

it." (Charmaz, p.117) This often means going back to the data and re-examining in order to describe the process that is indicated by the data.

Analysis of interviews and documents may be well-suited to coding "chunks of data" and then examining those codes in order to find patterns. Further down the line, when more information has been collected, diagrams or flow charts could help to illuminate patterns. For example, using figure 3.1 from above for research question 1, patterns of influence could be identified and notated. In figure 3.2, horizontal and vertical linkages in the organizational field could be identified. It will be necessary to adapt as the study progresses, and to be ready to employ a variety of analytical tools. One of these tools is the analytical memo.

The steps in writing the initial memos start with using the codes that have been created and treating them as topics or categories, similar to the process of the librarian classifying books into categories or applying subject headings or keywords to articles. The codes will be defined, and include the conditions under which they are applied or used. An explanation of how codes relate to the other categories will be outlined as well. Once there is a critical mass of memos, they will be sorted and comparable categories will be combined. This process will help to avoid mixing up categories. Memos can be sorted for content, process, and other patterns. The next step is integrating and involves composing a new memo to examine the relationship between categories. It may be necessary at this point to impose some sort of order, being careful to explain the logic involved. Regular memo writing and submission for review is a cyclical process requiring iterative cycles of data collecting. Data will be collected and examined until there is saturation,

that is, no more new information. For examples of a coded interview and analytical memo, please refer to Appendix C.

Validity

Creswell and Plano Clark (2011) describe qualitative validity as determining the accuracy of the data collected. Kvale and Brinkmann also address validity in the qualitative realm, particularly with regard to interview research and posit that "validation… [should] permeate all stages from the first thematization to the final reporting." (Kvale & Brinkmann, 2009, p. 241) They propose a more open concept of validity: "validity pertains to the degree that a method investigates what it is intended to investigate" (Ibid, p. 246). This concept of validity relies less on measurement and more on quality control throughout the entire research process. They identify seven stages where validation should take place, during: thematizing or construction of the theoretical underpinning; the research design process; interviewing, to ensure trustworthiness of respondent's reports; transcribing; analysis, to ensure interpretation makes sense; validating or applying procedures, and reporting, where the assessment is made as to the accuracy of the account (Kvale & Brinkmann, 2009, p. 248-9). In this study, quality control in each of the seven stages (in italics) will be addressed as follows (procedures are in bold):

- *Conceptual framework; theoretical underpinning*
    - **Review and analysis of literature; feedback from committee**
- *Research design process*
    - **Submit to committee for approval**
- *Interviewing*
    - **Field notes and memo writing** with regular submission for **review by advisor**
- *Transcribing*
    - **Double coding** (initial coding and focused coding)
- *Analysis*

    - **Double coding** (initial coding and focused coding)
    - **Memo writing** with regular submission for **review by advisor**
- *Validating*
    - **Triangulation of sources**: interviews, documents and observation
    - **Memo writing** with regular submission for **review by advisor**
- *Reporting*
    - **Member checking**; **submission to advisor and committee members**

Historically, concerns about the use of case study methodology have centered on the internal and external validity of findings, replicability, and generalizability (deVaus, 2001; Flyvbjerg, 2006). Yin (2009) adds construct validity and reliability to the list. Yin (2009), gives us a number of tactics for addressing some of these concerns. The tactics that can be used during the data collection phase of the study to mitigate construct validity (using the correct measures for the topic being researched) are utilizing multiple sources of evidence, and creating a chain of evidence. The use of document analysis, interviews, and observation will allow for multiple sources of analysis and will help to address some of these concerns. Yin (2009) explains that internal validity is a concern in explanatory case studies where a causal relationship is being explored, but it is not an issue in descriptive or exploratory studies. External validity is attended to in the research design phase in single-case studies by using theory. Reliability is addressed in the data collection phase by utilizing a case study protocol and creating a case study database (Yin, 2009).

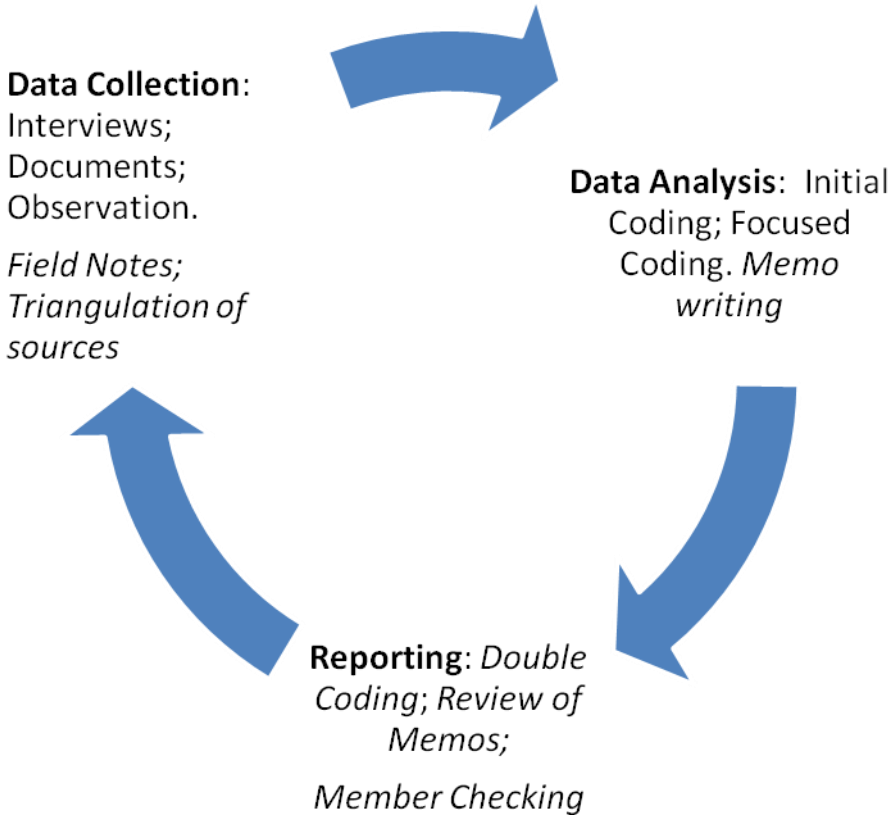
Baxter (2008) also outlines some approaches for dealing with concerns of validity. She suggests the use of the process of member checking where researchers' interpretations are reviewed by the participants so that participants can clarify interpretations and share their feedback and advocates for the use of regular submission of field notes. Another approach is to use a double coding

process where a set of data are coded, and then after a period of time the researcher returns and codes the same data set and compares the results (Krefting, 1991). These approaches will be employed as outlined in the list of the seven stages of quality control above.

Another method for quality assurance is triangulation, or comparing results from different sources. In this sense, triangulation refers to multiple ways to get at the evidence. For example, in the public library, we did ad hoc interviewing with patrons to determine their primary reason for library visits, and found the majority answered that it was to borrow videos or DVD's. This anecdotal finding was reinforced by circulation statistics and by the well-worn path on the carpet to the bins where the DVD sleeves were stored. Thus, three separate sources of evidence showed us similar results. In the case study, triangulation of sources can include using multiple approaches, such as observations, interviews, and documents for data gathering. Triangulation can greatly strengthen research measurement; similar results with different approaches lead to better confidence in the validity of each measure (Schutt, 2006).

Figure 3.3 is a graphical representation of where the activities for assuring validity and reliability will take place in each phase of the case study. It also represents the iterative nature of the research cycle. The research stage is in bold. The italics signify the procedural approach or technique that will be employed at each stage for quality assurance.

Figure 3.3 – The iterative nature of assuring validity



Research stage is in bold; *italics* represent approach for quality assurance

In any type of research approach, the need for integrity, open-mindedness and thoughtful analysis throughout the process is critical. Being a librarian studying libraries and library staff has inherent advantages and disadvantages. The fact that I am not familiar with the library and community I will be studying will provide a fresh outlook. I will use triangulation of sources, regular submission of field notes, review of analytical memos by my advisor and committee members, and member checking to guard against any bias that may arise due to preconceived notions or expectations that I may possess due to my background.

Summary

The case study is an effective research method because: "insights when taken together provide a much fuller, more complex understanding" (deVaus, 2001, p. 221). Through the investigation of a unique single case, I hope to shed light on the decision-making process and organizational forces that led to the creation of the Consumer Health Resource Center as a means of health information provision in a central public library.

The descriptive case study of the CHRC will be bounded by time (from the first discussions about the center (~1999) to present) and place (the library service area). Data collection will begin with document analysis, interviews and observation. Due to the iterative nature of the case study method, data collection and analysis will occur simultaneously, and inform the research process. A number of measures will be taken to ensure validity and reliability, including: using multiple sources of data collection such as interviews, document analysis, and observation; member checking; double coding; and regular review of memos. Additionally, key informants will be invited to review drafts of the final report. The case study method allows the researcher to step back and take a broad look at an issue or process within a larger context. It is the method of choice when the presumption is that the "whole is greater than the sum of its parts."

Chapter four continues with a discussion of two preliminary research projects that helped to inform the inquiry process.

CHAPTER 4 Context Exploration & Preliminary Research Results

The primary research motivation, a better understanding of how rural public libraries address their communities' health information needs, was partly borne out of the apparent dearth of empirical data on this topic. To gain baseline information on health information provision in rural public libraries and to better inform the research direction, two studies were completed - one in 2010 and a follow-up in 2011. The conduct of those studies, including the results obtained, methods utilized, and lessons learned have helped to inform, formulate and refine the overall research approach and inquiry.

Preliminary Study Results

In 2010, a preliminary assessment of health information provision in rural public libraries in Upstate New York was completed; the results were published in June 2011 in the journal *Public Library Quarterly*. To briefly summarize: using telephone surveys and follow-up visits, we sought to answer: in rural public libraries, how many reference queries are health related; what are the primary resources for health related queries; do reported practices match actual practices, and where do rural library staffs learn about health information? We found 10% (average) of reference questions were health related. Print resources were consulted about half of the time, the other half of the time staff used the internet. For print resources, the average reference book provided was fifteen years old; for non-fiction item, it was nine years old. Depending on the

criteria, 30-60% of the time reported practice matched actual practice. Self-taught and library system were the most cited resources for learning about health information.

Study 1 Methods and Results

For this project, rural libraries were defined as public libraries located in counties identified as non-metropolitan by the United States Department of Agriculture's Economic Research Service (USDA, 2010) by using their assignment of rural-urban continuum codes. Using data from the Federal-State Cooperative System for Public Library Data available through the Bibliostat database via the New York State Division of Library Development, a random sample of thirty total libraries from all of the public libraries in the ten most rural counties (three from each county) was identified. A brief telephone survey, including the following questions, was conducted with the library director or manager in those thirty libraries.

1- How many reference questions does the library answer annually?
(*If the respondent couldn't answer, annual report data from NYS was consulted.*)

   a. Can you estimate what percentage of those questions is health-related?

2- What is your primary resource for answering health-related queries?

   If print – ask for title and publication date *(e.g. if PDR, ask what year they have on the shelf)*

   If online – ask for specifics *(e.g. do you start with a search engine; what website do you use?)*

3- Where do you learn about health information resources?
Check all that apply
   a. Self-taught (*ask for details*)
   b. Other public library staff (*ask for specifics: in-house; in-system; in NYS*)
   c. Library journals and professional media (*what publications?*)
   d. Library System (*how does the system disseminate the information?*)

e. Training opportunities (*ask them to specify sponsor – system, NN/LM, conferences, etc.*)
f. Advertising
g. Health care system (*local hospital, health care provider, public health nurse, etc.*)
h. Other (*please specify*)

4- Do you have any questions for me?

In order to have a better knowledge of the extent to which patrons used rural public libraries for health information, we asked the survey respondents to estimate what per cent of annual reference questions were health related. The range was 0% ("*can't recall the last health related question"*) to 35%, with an average of 10% of all reference questions identified as related to health information.

When asked "*What is your primary resource for answering health-related queries?*" fourteen of the thirty libraries (47%) stated that they used the internet as their primary health information resource. Thirteen libraries (43%) identified print resources as their primary method for answering health queries. Three cited a specific medical guide (publication years for these guides were 1995, 1999, 2003); three said they consulted the reference collection; two referred to the library system's interlibrary loan services; two stated they used a book in the (non-fiction) collection, and three didn't specify or stated that it depended on the particular question. Three libraries (10%) stated that they could not recall or did not answer health related queries.

When asked "*Where do you learn about health information resources?"* twenty-four respondents replied positively to "*self-taught*". When asked to elaborate, respondents made statements such as "*I pay attention to what is going on in the world"* and "*I periodically check on listservs."*

Thirteen respondents listed other library staff as a resource (this included staff from libraries other than their own); ten listed library journals and professional media; twenty-four identified their library system as a resource; six listed training opportunities outside the library system, eleven identified advertising (generally through popular media), and fourteen cited their health care system as a method for their learning about health information that they could use in their library position. Two listed "other" resources; these included "*Cornell Cooperative Extension"* and "*my sister, who works in a doctor's office, she says to use WebMD."* Five of the total thirty libraries reported having a staff member with an MLS degree (three libraries listed a full-time MLS staff member, one a 60% MLS FTE and one had a 25% MLS FTE).

In order to compare reported practices (from the initial phone survey) to actual practices, a visit was made to ten libraries. In those visits, a recent MSLIS graduate posed the reference query, "Do vaccines cause autism?" This question was deliberately constructed, in consultation with a pediatrician, to provide some ambiguity and to emulate a true reference encounter involving a health information issue. The motivation was to better understand what reference tools rural public library staff were using to answer health queries where the answer might not be obvious or straightforward. Of those ten visits, six of the reported practices (from the phone survey) matched the actual practice in the visit with regard to starting online or with print; four did not.

In six library visits, staff started with print materials, two first identified a book from the reference collection and four started with the non-fiction collection. The books from the reference collection ranged in publication date from 1979-2009; the first reference item provided at the visits was over twenty years old; the median publication date for reference items was 1997;

the average publication date was 1996. For the non-fiction items, the publication dates ranged from 1976-2009. The first book provided was on average five years old; the median publication date for non-fiction items was 2004, and the average was 2002.

During the library visits, materials that addressed the specific question being asked were received by the interviewee in only two out of ten encounters. In the other eight encounters, the materials provided ranged from advocacy literature to autobiographies warning against the danger of vaccines. Popular literature was provided by library staff on more than one occasion and presented as authoritative health information. In one visit, the staff member produced J. McCarthy's book Mother Warriors and stated, "*She knows a lot about this subject, she's pretty much the expert."*

In January 2011, each of the ten libraries that had been visited was contacted by phone again. Two additional survey questions were posed: Does your library have a policy for answering reference questions; and what resource would you use to answer the question, "Do vaccines cause autism?" Results from the two phone interviews were compared with each other and with the responses obtained during the in-person visits for those ten libraries. None of the ten libraries reported having a policy for answering reference questions. When asked what resource they would use as a starting point for the query, "do vaccines cause autism?" seventy percent of the libraries identified the same source as in the initial phone survey. It should be noted that in two of those cases the actual subcategory of item was different.

We found differing levels of staff willingness to answer health queries. In one library visit the staff member stated "*Another library might be more helpful as this is just a small lending library.*" One of the respondents in the phone survey said she was uncomfortable using online resources: "*Most people who come in know the computer better than I do, so I don't steer them toward the computer."* On the flipside, one library explained that they take advantage of online resources, "*We use MedlinePlus; patrons can find what they need."* Our initial study demonstrated that there were great disparities in rural public libraries in Upstate New York in terms of the provision of accurate, authoritative health information.

Follow-up Study – 2011 Results

To build on the first study, a follow-up project was conducted in twenty public libraries in rural Upstate New York in 2011. Visits were made to ten randomly selected public libraries that were members of a library system with a consumer health resource center in the central library of the system. Visits were also made to ten randomly selected libraries in a system that does not have a consumer health resource center. During those visits, the same protocol was followed as in the 2010 study. The reference query, "Do vaccines cause autism?" was posed to the library staff. As in 2010, a record was made of the exact reference resource that was provided. Resources were categorized into online or print; the first resource provided was also noted. Print media were further categorized as reference or non-fiction as classified by the individual library. The titles and publication dates of resources were also recorded. Table 4.1 below indicates which resources were consulted.

Table 4.1 Resource consulted for health query in libraries in 2 library systems; one without a CHRC and one with a CHRC.

Resource consulted	*Library system - no CHRC*	*SALS – has CHRC*
Book Collection	6	5
Health database thru system	2	
CHRC		3
Google	1	1
MedlinePlus		1
Referred to local college	1	

In the libraries in the system without a CHRC, a small majority (60%) of staff used the book collection as the primary resource. In the system with the CHRC, in half of the libraries, the book collection was the primary resource consulted. When the book collection was the resource consulted, in all of the visits in both systems, the non-fiction book collection was the primary resource; in none of the instances did the staff refer to the reference collection. In the libraries in both systems that supplied non-fiction books, the publication dates spanned 1986-2010, and once again included a range of materials (Table 4.2).

If we consider the print resources provided, there are eight unique titles. Of those, it appears only one addressed the question that was posed with up-to-date, balanced medical information, the Everything parent's guide to vaccines. Sears, in his Autism book advocates against vaccination, as do N. Miller and J. McCarthy in their publications. The last two books in the table by M. Powers and T. Grandin while discussing autism didn't address vaccination in any way and were outdated with regard to current information.

There were two items that were supplied by libraries in both systems, one of which was a 2007 publication by Bock, entitled Healing the new childhood epidemics. Bock refers to the research

by Andrew Wakefield, (the author of the original misleading study linking vaccines with autism who has since had his medical license revoked) as "pioneering" (p. 55) and goes on to discuss the harm from vaccines. The other item supplied in both systems and in three out of the twenty library visits (two in the system with the CHRC and one in the system without) was the book Evidence of Harm by D. Kirby. A review of this book in the *British Medical Journal* (2005) by general practitioner Fitzpatrick stated "The only value of this woefully one sided account of the mercury and autism controversy is the insight it offers into the way that credulous journalists have contributed to the public nuisance and private distress caused by antivaccine campaigns."

Table 4.2 Print resources supplied in library visits to libraries in the two systems

Resource consulted	*Library system - no CHRC*	*SALS – has CHRC*
Sears, R. (2010) Autism book		1
Young, L. (2010) Everything parent's guide to vaccines	1	
McCarthy, J. (2009) Healing and preventing autism	1	
Bock, K. (2007) Healing the new childhood epidemics	1	1
Kirby, D. (2005) Evidence of harm	1	2
Miller, N. (2002) Vaccines: are they really safe and effective	1	
Powers, M. (2000) Children with autism: a parent's guide	1	
Grandin, T. (1986) Emergence labeled autism		1

In both systems, one library each referred to Google as the preferred primary source. One of the staff members who advocated using Google stated "*the top 10 sites on Google are the best, so start with those.*" In the libraries served by the CHRC, 3 libraries (30%) referred to the CHRC or the medical librarian as the primary resource for, in the words of one staff member, "*information*

on such a confusing issue." One library in that system referred to the National Library of Medicine's online resource, MedlinePlus. Among libraries without a CHRC at the central library, two (20%) referred to the health database made available through the library system. In one library visit, the staff advised using the local community college library as a resource, "*because they have a nursing program, so they should have information like that available.*"

While all of the libraries in the SALS system have access to the CHRC, only three felt the need to refer the question there. Half of the libraries used their own book collections as the primary resource, and in all of those instances (100% of the time) the books referred to weren't adequate for answering the query and/or contained misinformation. This rate is higher than that found in the first study of libraries that were members of a variety of different library systems (80% in that case).

The preliminary studies established that in Upstate New York: rural public libraries do receive health queries; formal policies are not in place; the quality of information provided is uneven; and when a formal support mechanism (the CHRC) is available, its utilization is inconsistent. These findings helped to lay the groundwork for understanding *what* is happening with regard to health information provision in rural public libraries.

New Considerations

The results from the preliminary studies led to further research quandaries and demonstrated the need to take a broader perspective. *Why* is health information provision not consistent across libraries? What are the organizational factors or influences that affect health information provision? What institutional pressures or influences are in place that promote these differences, are they related to isomorphism? What is the role of social actors; does professionalization play a role?

A more in-depth research approach, with an analysis of the larger context is needed to address this issue. Thus, the methods used should extend beyond short interviews and surveys. The case study method will allow a step back to enable a more holistic picture of the factors that influence how rural public library staff approach health information provision. By using a variety of complementary data collection techniques, including interviews, document analysis and observation, the next phase of research can dig deeper and take into account a broader spectrum of considerations such as how organizational factors and the organizational field might influence or affect service provision with regard to health information.

The phone interviews in the preliminary studies indicated that the majority of library managers/directors were very forthcoming and willing to discuss health information provision; therefore, this technique proved to be a viable means of data collection. Those interviews also led to further lines of inquiry: was the variability of service provision and viewpoints among library managers due to organizational factors, such as the influence of, or relationship with, the community, the library system, the library board, etc.? Why are some services, such as storytime programs, embraced almost universally by public libraries, while others, such as health information provision are not? Are there institutional forces, such as normative isomorphism at

play? Did professionalization of library staff have an effect on attitudes toward service provision? These avenues of inquiry can be pursued with more in-depth interviews with a variety of individuals (e.g. current and former library staff, current and former board members, library system director, hospital administrator, etc.) for a better and broader understanding. Additionally, during interviews referrals will be solicited for other likely interview candidates so that the pool of respondents won't be limited by possible preconceived notions of the researcher.

Data collection will be extended to examination of a number of different types of documents (board meeting minutes, planning documents, mission statements, annual reports, etc.) in order to gain a perspective of historical influences and organizational factors that may have exerted or exert an influence on health information provision. Observation was used extensively in the pilot studies, primarily through visits to the libraries, to better understand how library staff were providing health information. This was an effective approach for that phase of data collection and provided baseline information for what is happening in the libraries with regard to health information provision. The next research phase will employ observation more sparingly. Observation will take place in the CHRC. Its primary purpose will be to provide data on the utilization of the resource center and materials.

The preliminary research studies provided background information on some of the unique aspects of health information provision in rural public libraries. Other issues borne out of the preliminary studies include: how does approach to service provision spread through a library and/or library system? What kind of role does the central library play with regard to diffusion of health information provision and libraries' perceived roles as information facilitator? More

specific questions also arose, such as: why were non-fiction items generally newer than the reference collection, is this due to community preferences and/or cost and do changing beliefs about mission and service provision play a role in collection maintenance of reference materials (e.g. one staff member commented, "*people are using computers and the internet at home; they don't need our reference books anymore*")? While the case study of the CHRC may not address all of the questions generated by the preliminary studies, the aim is to aid in our understanding of the organizational and institutional factors that influenced the decision and the decision-making process to adopt this type of service provision for health information.

APPENDICES

Appendix A. Definition of terms

Rural library: In the library literature, there are different definitions and a variety of parameters for determining a classification of rural and/or small (Ivie, 2000). According to the Library Services and Construction Act (LSCA) rural libraries are those located in communities with 10,000 residents or less (Osbourn, 1973). The Center for the Study of Rural Librarianship and the American Library Association categorize public libraries that are chartered to serve fewer than 25,000 residents as rural (Vavrek, 1983). For the purposes of this research, the LSCA definition will be used; therefore, rural libraries will be designated as public libraries that serve populations below 10,000.

Public library: The following definition crafted by the IMLS (2010) for public library will be used: "A public library is an entity that is established under state enabling laws or regulations to serve a community, district, or region, and that provides at least the following: (1) an organized collection of printed or other library materials, or a combination thereof; (2) paid staff; (3) an established schedule in which services of the staff are available to the public; (4) the facilities necessary to support such a collection, staff, and schedule; and (5) that is supported in whole or in part with public funds."

Public library system: This term will be used as it specifically applies to New York State. Public library systems were created by Education Law in the late 1950's to enhance and extend local public library service through cooperative sharing of resources (NYS DLD, 2011). There

are currently twenty-three public library systems whose mission is to support individual public libraries throughout the state. There are three types of public library systems: consolidated (3), federated (4), and cooperative (16). In cooperative systems, member libraries function independently, rather than as branches of a greater system. Most of the rural public libraries in New York are members of cooperative systems, and the majority of library directors/managers and library staff in these libraries are not professionally trained librarians (Bibliostat, NYDLD, 2011).

Central public library: In New York State, central libraries were created within each public library system to ensure access to a wide variety of reference resources for member libraries of the system, and their patrons. According to the Division of Library Development (2009), "the goal was to ensure that each citizen have, relatively close at hand, a significant collection of print or print-based resources available for on-site use and Interlibrary Loan…. they serve 741 local libraries all over the State. Central libraries represent a substantial investment resulting from a long term partnership of state and local cooperation and funding which could probably not be duplicated today." Central libraries vary by community and population served, but according to the Division of Library Development (2009), they all are: a principal node in providing access to resources; located in the principal economic centers; accountable for planning, budgeting, and expenditures of State funds. Additionally, they: house significant collections; provide coordinated services with the public library systems; and have staffs with considerable expertise.

Consumer health information: The U.S. National Library of Medicine (NLM) defines consumer health information as "Information intended for potential users of medical and healthcare

services. There is an emphasis on self-care and preventive approaches as well as information for community-wide dissemination and use." (PubMed, 2011) The term was added to their comprehensive list of Medical Subject Headings (MeSH) in 2008. This definition will be used for the purposes of this study.

Appendix B. Interview Guide

RQ1: *What organizational factors are associated with the creation of a consumer health resource center (CHRC) within a central public library?*

Interviews (approximately 1-2 hours in duration) will take place with:

- the library director
- former board members *(as identified by library director)*
- current board members *(as identified by library director)*
- former medical librarian
- current medical librarian
- others identified through completed interviews

Note: These questions are meant only to serve as a template/guide for starting the conversation. It is likely that responses will lead to other avenues of inquiry not yet identified.

The interviews will be guided by the following questions:

- Can you describe the decision-making process that established the CHRC?
    - Who were the major players?
        - Possible avenues to explore:
            - An initiative of the library board
            - An initiative of the library director
            - Other organizations/members in the community were involved
    - Was it in response to a change in service provision?
        - Does the library have guidelines/policies for service provision?
            - How often are they updated?
        - Was an increased need for answering consumer health questions identified?
            - Was the CHRC a way to fulfill that need?
    - Was it due to building/facility renovation or restructuring?
        - Was space allocated for the CHRC?
    - Was it due to funding opportunities?
        - If so, who discovered those opportunities?
            - Were they in the form of foundation funds?
            - Were they in the form of governmental funds?
                - Federal, state, or local?
    - How is the CHRC maintained?
        - Is there a budget line specifically for the CHRC?
            - Has that always been the case?
        - Is the medical librarian included in the organizational chart?
        - Was a specific job description crafted for the medical librarian position?

RQ2: *How did the organizational field influence the central public library with regard to adoption of a consumer health resource center (CHRC) as a service*?

Based on initial interviews with the library director and board members, the individuals below and/or other respondents may be candidates for interviews. Interview questions will vary based on the individual/organization under study, so these questions are meant as a starting point for the inquiry process.

Interviews (approximately 1-2 hours in duration) may take place with:

- the (SALS) library system director
- the regional library council director
- Chamber of commerce director
- Hospital administrator
- NYS DLD library system liaison
- others identified through completed interviews

The interviews will be guided by the following questions:

- (How) does your organization engage with the central library?
  - Do you have any oversight responsibilities?
  - Do you have any contracts or service agreements with the central library?
  - Are you and the central library director involved in common activities within the community (e.g. regular members of the Chamber of Commerce)?

- Were you or your organization involved in the process of the establishment of the CHRC at the central library?
  - Through funding?
  - Other mechanisms? (e.g. in-kind services, professional support)

- Are you aware of the CHRC?
  - Do you refer people to the CHRC?

RQ3: *How does professionalization of librarians influence an institutions' adaptability to provide consumer health information?*

Interviews will be conducted with directors/managers of member libraries served by the CHRC.

- How long have you been in your present position?
    - How did you come to your present position?

- What do you think are the primary functions of the library in the community?
    - What types of services does your library provide?
    - What are the most popular?
        - Based on statistics? Opinion? Anecdotal evidence?
    - What do you think are the most important?
    - Do you record what types of reference questions (subject) are asked?
        - Does this guide collection development or services?
        - What percentage of annual questions are health related?
            - How do you learn about health information resources?
            - Do you know about the CHRC at Crandall Public Library?
                - Do you use their services?
                - Do you refer patrons there?

- Are you a member of any professional library organizations?
    - ALA?
    - PLA?
    - MLA?
    - NYLA?
    - Other?

- Do you attend any conferences or training sponsored by professional library organizations?
    - ALA?
    - PLA?
    - MLA?
    - NYLA?
    - Other?

- Do you attend any other training sponsored by other organizations?
    - Library system?
    - Regional library council?
    - NYS DLD?
    - Other?

- What is your educational background?
    - Has it involved formal training as a librarian?

Appendix C. Example of Data Analysis

Included below is an example of a completed interview, with preliminary questions that guided the process, field notes with a coded interview, and the analytical memo that was generated from the data. This interview was used early on for practice and to gather preliminary data. It was not constructed or conducted to answer the research questions above and does not include analysis of institutional influences. Its inclusion is intended only to serve as an example of how I plan to approach the process of data analysis.

The following questions guided the interview and served as a checklist:

- How many reference questions are answered annually?
    - ◊ How many are health related?
- Where do you think community members look for health information?
- Does library staff refer reference questions to you?
- What resources are used to find health information?
- When patrons ask about health related issues is it:
    - ◊ Because of needing more information/ clarification after doctor's visit/diagnosis.
    - ◊ Or before the doctor's visit.
    - ◊ For a family member.
- Do community groups use the library as a meeting place?
    - ◊ Are any of those health support groups (such as Better Breathers, etc.)?
- Do you use the internet to find health information?
    - ◊ What is your favorite website for health?
    - ◊ Do you refer patrons to it?
    - ◊ Do you refer staff to it?
- Do you have regular staff training?
    - ◊ Does this include addressing reference questions?

The interview took place with a public library director who is also a nurse practitioner to learn about her experience with providing health information to patrons in a small, rural public library. The library is in a different library system than the Glens Falls CHRC and doesn't have any affiliation or correspondence with libraries that are members of the same system as the Glens Falls library.

The interview is coded below; I went through the interview line by line and categorized concepts into codes. I did not have a pre-set list of codes, the codes were emergent and developed as I read through and analyzed the text. Then I created a table to summarize the categories, and found that they started to fit into larger categories, which are noted as subheadings. I realize that using the comment approach {C#} to coding may be a bit clunky and inelegant, but it suits my purposes. Also, please note that some C#'s have more than one subject; in that case they appear twice in the table, but in separate categories.

Field notes notation:

- *Italics* – information added after initial expansion of notes
- "Quotes" – verbatim quotations
- (parentheses) – clarification of meaning
- [brackets] – researcher's interpretations
- <u>Underlined</u> – jargon
- { } codes applied

<u>Field Notes including coded interview</u>:

10/26/09 3:05-4:00

The library is a stately brick edifice, built in the early 1900's, and located in the heart of the village across from the Village Green. The library is contracted to serve the town, about 6500 residents. Upon entering the library, there is an expansive counter for the circulation functions of the library. To the right and left are computer terminals and large tables. The upstairs loft area houses book stacks; there are meeting areas and a perpetual book sale downstairs. The children's area is in the back of the building, a bright and open section with large windows and abundant natural light. The staff offices are between the circulation area and the children's area off of a spacious hallway. The library was busy and felt very vital. There is a warm and welcoming atmosphere; staff are friendly and seem to interact warmly with patrons.

The meeting started with a thorough tour of the library, which has recently been renovated with careful attention to retain the historic features and flavor of the place.

Having worked with P.'s sister was a great entrée – there was an automatic connection that jump-started our encounter.

<u>Interview with P., Library Director</u>

During the tour P. chatted about how the library is truly the heartbeat of the community {C1: library's role}; she spoke about how invested the community members are in their library as exhibited by their donations for the renovation project and volunteer activities. We also discussed P.'s studies; she is just finishing up her MLIS {C2: education level of staff} and expects to graduate in December. She has been in the position of interim director for approximately 20 months.

I started off the *official* part of the interview by asking about reference questions P. fields that are related to health.

P. reported that they don't receive many reference questions in general - approx. 2000 annually - and very few related to health, she felt like she couldn't really estimate.{C3: health reference questions}

- She attributes this to her notion that patrons assume they can find information themselves on the internet {C4: patron behavior}
- There's a teaching process involved with reference queries, which they (she and the staff) don't always have time for {C5: staff behavior; time}
- They don't promote/advertise that they have reference questions – there is no separate reference desk, patrons ask questions at the (often busy) very public and central circulation desk {C6: physical facility considerations; staff behavior}
- Desk staff miss reference questions – they don't always understand that it's truly a reference question and requires further assistance {C7: reference questions}[*this jogs my memory on the study done years ago finding that patrons list a reference encounter as successful if the librarian was friendly and helpful, not based on getting the correct information*]
- The front desk offers little privacy, {C8: physical facility considerations} *this may dissuade question asking*

P. also discussed the challenge of educating staff about "just what constitutes a reference question." {C9: reference questions} She felt that staff don't know/understand how to classify reference questions. She said that they don't always differentiate between directional questions and more in-depth information seeking. I mentioned that we had the same challenge when I was at the Sidney library, and that after I started working there our number of reference questions recorded for the annual report plummeted.

The library does have meeting space that community groups regularly use. {C10: physical facility considerations; outreach opportunities} When asked about whether health support groups use the library as a meeting place, she said no, but that would be a "great outreach opportunity."

P. mentioned the NY State library program on Equal access libraries – there were 3 sections, one on teens, one on health, and one on aging. She attended the health section,{C11: training} and came away with many good ideas, but found that she doesn't have time to implement them. {C12: time}

In terms of health information, she mostly uses MedlinePlus, {C13: information source-internet} as it's the most consumer-oriented. She stated that Medline and Pubmed are too research oriented for patrons' needs.{C14: information source-internet} She said that she also has had experience in veterinary medicine, and during that experience came to rely heavily on the Merck Manual for Veterinary Medicine. {C15: experience; information source- print} Because of that exposure, she has just started a print subscription to Merck Manual for medicine. {C16: information source- print}

When asked whether staff are trained to answer reference queries - by her, or by the Finger Lakes Library System of which they are a member - P. said that no, not really, they are trained to use the library databases/online catalog, but not "the next level up." {C17: training}

According to P., the reference librarian at Penn Yan reports that they have worked at promoting/advertising reference services, and they have a large number of reference queries. {C18: reference questions; service promotion} P. likened this to "if you build it, they will come." {C19: physical facility consideration}

She'd like to believe that public libraries can play a role in "medical re-education." {C20: library's role} Her perception, both from her time in the library and as a nurse practitioner, {C21: experience} is that most folks are getting their health information from TV advertising. {C22: information source- advertising} She feels that libraries/librarians could help educate the public that there are better sources. {C23: library's role}

She also stated that people can't get the information from their physicians, there's not enough time during a patient visit {C24: time} – they want a second opinion, and the second opinion, "may need to be your own." She went on to say that in the doctor's office, the patient is not catching what the doctor is saying. {C25: consumer capability} As a health care professional (nurse practitioner) she knows what to ask and can corner a doctor, most folks can't do that. We also spoke a bit about the concept of health literacy; she said that most practitioners aren't as aware of /attentive to the issue as they could/should be, and that again, time is a limiting factor in the office visit with providers. {C26: time; health literacy}

In the library, she'd like to have more time to address computer literacy in general, to train patrons how to use databases and how to find good sources of information (*for all subjects*). {C27: computer literacy; information source promotion; time}

They are now receiving the magazine WebMD, unsolicited, at the library. {C28: information source- advertising; print}

P. stated that she doesn't believe that the public is finding/getting good health information on their own or without the help of an intermediary. {C29: patron behavior; consumer capability} As a nurse practitioner, most questions from patients came from paid TV advertisements; {C30: information source- advertising} she doesn't trust the sources of information the public are using. {C31: information source- quality}

We discussed the National Public Radio piece that aired on this subject – she remembered it as saying that one in three doctors prescribe medication that patients request. {C32: information source- advertising} She said that she thinks many practitioners just prescribe because it's much easier than taking the time to educate patients about their conditions or lack thereof. {C33: HCP behavior}

The health reference questions that they have received are almost always in one of two categories and often on behalf of a family member:

1. A recent diagnosis
   Where they want prognosis and treatment information
2. Recent medication which has been prescribed
   They want information on side effects {C34: health reference questions; health reference topics}

Text C=Comment	**Code** number of occurrences
Library	
C1 - library is truly the heartbeat of the community; ***C20*** - She'd like to believe that public libraries can play a role in "medical re-education; ***C23*** - She feels that libraries/librarians could help educate the public that there are better sources	Library's role - 3
C6 - Desk staff miss reference questions; ***C8*** - The front desk offers little privacy; ***C10*** - library does have meeting space that community groups regularly use; ***C19*** - "if you build it, they will come"	Physical facility considerations - 4
C7 - Desk staff miss reference questions; ***C9*** - staff don't know/understand how to classify reference questions; ***C18*** - Penn Yan reports that they have worked at promoting/advertising reference services, and they have a large number of reference queries	Reference questions - 3
C3 - very few related to health, she felt like she couldn't really estimate; ***C34*** - almost always in one of two categories and often on behalf of a family member	Health reference questions – general - 2
C34 - A recent diagnosis, Where they want prognosis and treatment information; ***C34*** - Recent medication that has been prescribed, They want information on side effects	Health reference - specific topics - 2

C10 - When asked about whether health support groups use the library as a meeting place, she said no, but that would be a "great outreach opportunity."	Outreach opportunities - 1
C18 - Penn Yan reports that they have worked at promoting/advertising reference services; ***C27*** - to train patrons how to use databases and how to find good sources of information	Service promotion – 2
Staff	
C2 - she is just finishing up her MLIS	Education level of staff - 1
C5 - There's a teaching process involved with reference queries; ***C6*** - they don't always understand that it's truly a reference question and requires further assistance;	Staff behavior - 2
C15 - she also has had experience in veterinary medicine; ***C21*** - both from her time in the library and as a nurse practitioner	Staff experience - 2
C11 - She attended the health section; ***C17*** - they are trained to use the library databases/online catalog, but not "the next level up."	Training (for staff) – 2
Patrons	
C4 - She attributes this to her notion that patrons assume they can find information themselves on the internet; ***C29*** - she doesn't believe that the public is finding/getting good health information on their own or without the help of an intermediary	Patron behavior - 2
C25 - the patient is not catching what the doctor is saying; ***C29*** - she doesn't believe that the public is finding/getting good health information on their own	Patron/Consumer capability – 2
C26 - she said that most practitioners aren't as aware of /attentive to the issue as they could/should be	Health literacy – 1
C27 - she'd like to have more time to address computer literacy in general	Computer literacy – 1
Info. sources	
C13 - she mostly uses MedlinePlus; ***C14*** - Medline and Pubmed are too research oriented for patrons' needs	Info. source - Internet – 2
C22 - most folks are getting their health information from TV advertising; ***C28*** - now receiving the magazine WebMD, unsolicited, at the library; ***C30*** - As a nurse practitioner,	Info. source – advertising – 4

most questions from patients came from paid TV advertisements; ***C32*** **-** she remembered it as saying that one in three doctors prescribe medication that patients request.	
C15 **-** Merck Manual for Veterinary Medicine; ***C16*** **-** she has just started a print subscription to Merck Manual for medicine; ***C28*** **-** now receiving the magazine WebMD, unsolicited, at the library	Info. source – print – 3
C31 **-** she doesn't trust the sources of information the public are using.	Info. source quality – 1
Other	
C5 - process involved with reference queries, which they (she and the staff) don't always have time for; ***C12*** - she doesn't have time to implement them; ***C24*** **-** people can't get the information from their physicians, there's not enough time during a patient visit; ***C26*** **-** time is a limiting factor in the office visit with providers; ***C27*** **-** she'd like to have more time to address computer literacy in general	Time - 5
C33 **-** she thinks many practitioners just prescribe because it's much easier than taking the time to educate patients about their conditions or lack thereof	Health care provider behavior – 1

First Memo:

Preliminary Attempt at finding and defining appropriate codes

My initial analysis of my interview the director of the library yielded a number of codes for consideration. Upon reviewing the codes, it was apparent that many could be classified into larger categories as patterns emerged. Below are the initial codes and their definitions/descriptions.

The larger category of codes include: *Library, Staff, Patrons, Information Sources, and Other.* Within the category of *Library*, there is a further sub-division as follows:

Library

Library's role – the part the library plays in the community and in patrons' lives.
Physical facility considerations – actual physical space and what role that may play.
Reference questions – general information-seeking questions asked by patrons to library staff (ex. Where can I find a map of Botswana?).
Health reference questions – general – those reference questions that are related to health; this category relates more to talking about the topic in general, rather than patron queries (ex. Number of health questions, what categories do they fit in?).
Health reference specific topics – those health reference questions that relate to a specific query (ex. Are hypertension and high blood pressure the same thing?).
Outreach opportunities – Activities in which the library partakes that are considered outside the purview of the physical building and routine duties; generally take place within the greater community (ex. Attending health fairs, local events).
Service promotion – Efforts to advertise or make known the services the library offers. (In the future this may be further delineated to reference services, adult programs, children's programs, etc.)

Staff

Education level – Number of school years completed; whether librarian/library director/staff member has a Master's degree.
Staff experience – Professional and volunteer opportunities which staff have had.
Staff behavior – How staff relate to patrons; how they perform their job duties.
Training for staff – Formal and informal sessions to impart skills and information.

Patrons

Patron behavior – How library patrons conduct themselves and seek information.
Patron/consumer capability – Level of knowledge or expertise of patrons. Note that patron and consumer are used interchangeably to denote the information-seeker, some use the term customer.
Health literacy – The ability to obtain and process information related to health.
Computer literacy – The skills necessary to use a computer effectively.

Information Sources

Information source quality – The authoritativeness, timeliness, and accuracy of information.
Information source – Internet – Information found through using the internet.
Information source – Advertising – Information supplied by a commercial entity, with a vested monetary interest.

Information source – Print – Information found through the print media (ex. Books, magazines, pamphlets).

Other

Time – Any mention of time as resource, constraint, hindrance, etc.
Health care provider behavior – How health care providers (includes physicians, nurses, nurse practitioners, health care staff, etc.) relate to consumers.

The categories emerged from my line by line analysis of the interview. I tried to look at what was said and find a category in which the concept, topic, or idea fit. As the line of inquiry develops, and more data is compiled, categories may shift. For example, I can possibly foresee *Behavior* as a larger category, with patron, staff, and health care provider being included, depending upon what is found upon further exploration. Specific behaviors may also emerge, for example, avoidance. Additionally, resources such as time and physical facility may be grouped together. Also, it seems that library is the "super" category, and the others could also all fit under it as subcategories, with the following tree.

Library
- Staff
- Patrons
- Information Sources
- Other

My experience working in libraries is apparent through my creation and selection of terms for categories. For instance, I chose to place reference questions in the library category. It may make sense to include reference questions and health reference questions in the patron category, or even in the information category, but from my perspective it fits under library as it is contained in the services libraries provide. In fact, services could be a subcategory of library along with staff, patrons, etc. The hierarchy of categories belies my library background, as the larger classification terms are common terms and ways of categorizing issues in the library setting.

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